



JASON E. MUMPOWER  
*Comptroller*

## Independent Auditor's Report

Members of the General Assembly  
Members of the Tennessee Retiree Group Trust Board  
The Honorable David H. Lillard, Jr., Treasurer

### Report on the Audit of the Financial Statements

#### *Opinion*

We have audited the accompanying statement of fiduciary net position of the Tennessee Retiree Group Trust, an external investment pool sponsored by the State of Tennessee, as of June 30, 2023, 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 Tennessee Retiree Group Trust's basic financial statements.

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

#### *Basis of 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 Tennessee Retiree Group Trust and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion. Tennessee statutes, in addition to audit responsibilities, entrust certain other responsibilities to the Comptroller of the Treasury. Those responsibilities include serving as a member of the Tennessee Retiree Group Trust Board. We do not

believe that the Comptroller's service in this capacity affected our ability to conduct an independent audit of the Tennessee Retiree Group Trust.

## ***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 Tennessee Retiree Group Trust'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.

## ***Auditor's Responsibility 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 judgment 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 judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Tennessee Retiree Group Trust's internal control. Accordingly, no such opinion is expressed.

- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Tennessee Retiree Group Trust'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.

### *Emphasis of Matters*

As discussed in Note A.1, the financial statements present only the Tennessee Retiree Group Trust, an external investment pool sponsored by the State of Tennessee, and do not purport to, and do not, present fairly the financial position of the State of Tennessee, as of June 30, 2023, and the changes in financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

As discussed in Note B, the financial statements of the Tennessee Retiree Group Trust include investments valued at \$22,319,402,038 (34 percent of net position) whose fair values have been estimated by management in the absence of readily determinable fair values. Management's estimates are based on information provided by the fund managers or the general partners. Our opinion is not modified with respect to this matter.

### *Other Reporting Required by Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 12, 2023, on our consideration of the Tennessee Retiree Group Trust's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, and contracts and other matters. The purpose of that report is 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 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 Tennessee Retiree Group Trust's internal control over financial reporting and compliance.



Katherine J. Stickel, CPA, CGFM, Director  
Division of State Audit  
December 12, 2023

# Tennessee Retiree Group Trust

Tennessee Retiree Group Trust  
Statement of Fiduciary Net Position  
June 30, 2023  
*Expressed in Thousands*

## ASSETS

Cash and Cash Equivalents	\$	874,142
Cash Collateral for Securities on Loan		3,154,310
Receivables		
Investment Income Receivable		148,359
Derivative Instruments Receivable		113,604
Investments Sold		189,854
Total Receivables		<u>451,817</u>
Investments at Fair Value		
Government Securities		7,534,558
Corporate Securities		5,522,699
Corporate Stocks		28,835,779
Derivative Instruments		777
Strategic Lending		6,396,294
Private Equities		8,747,136
Real Estate		7,175,972
Total Investments		<u>64,213,215</u>
TOTAL ASSETS		<u>68,693,484</u>

## LIABILITIES AND NET POSITION

### LIABILITIES

Investments Purchased		201,567
Other Investments Payables		61,078
Derivative Instrument Payable		94,687
Cash Collateral for Securities on Loan		3,154,310
TOTAL LIABILITIES		<u>3,511,642</u>
NET POSITION HELD IN TRUST FOR POOL PARTICIPANTS	\$	<u>65,181,842</u>

*See accompanying Notes to the Financial Statements*

# Tennessee Retiree Group Trust

Tennessee Retiree Group Trust  
Statement of Changes in Fiduciary Net Position  
For the Period Ended June 30, 2023  
*Expressed in Thousands*

## OPERATIONS

### INVESTMENT INCOME

Net Appreciation (Depreciation) in Fair Value of Investments	\$ 2,344,514
Income on Securities	1,850,785
Total Investment Income (Loss)	<u>4,195,299</u>
Less: Investment Expense	63,943
Net Income (Loss) from Investing Activities	<u>4,131,356</u>
Securities Lending Activities	
Securities Lending Income	163,035
Less: Securities Lending Expense	143,701
Net Income from Securities Lending Activities	<u>19,334</u>
NET INVESTMENT INCOME (LOSS)	<u>4,150,690</u>
CAPITAL SHARE TRANSACTIONS	
Net Shares Sold	1,818,674
Net Shares Redeemed	2,979,511
TOTAL DECREASE FROM CAPITAL SHARE TRANSACTIONS	<u>(1,160,837)</u>
NET INCREASE IN FIDUCIARY NET POSITION	2,989,853
NET POSITION RESTRICTED FOR PARTICIPANTS	
NET POSITION, BEGINNING OF PERIOD	<u>62,191,989</u>
NET POSITION, END OF PERIOD	<u>\$ 65,181,842</u>

*See accompanying Notes to the Financial Statements*

Tennessee Retiree Group Trust  
Notes to the Financial Statements  
June 30, 2023

## **A: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### **1. Reporting entity**

The Tennessee Retiree Group Trust (TRGT) is an external investment pool sponsored by the State of Tennessee. The external portion of the TRGT consists of funds belonging to entities outside of the State of Tennessee Financial Reporting Entity and has been included as a separate investment trust fund in the *Tennessee Annual Comprehensive Financial Report*. The internal portion, consisting of funds belonging to the State and its component units, has been included in the various participating funds and component units in the *Tennessee Annual Comprehensive Financial Report*. That report is available on the state's website at <https://www.tn.gov/finance/rd-doa/fa-accfin-ar.html>.

### **2. Measurement focus and basis of accounting**

The accompanying financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB). The financial statements have been prepared using the flow of economic resources measurement focus and the accrual basis of accounting. Under the accrual method, revenues are recorded when earned, and expenses are recorded at the time liabilities are incurred regardless of the timing of related cash flows.

### **3. Cash and cash equivalents**

Cash and cash equivalents includes cash and short term investments with a maturity date within three months of the acquisition date. Cash management pools are included as cash. Cash received that cannot be immediately invested in securities, or that is needed for operations, is invested in either the State Pooled Investment Fund sponsored by the State of Tennessee and administered by the State Treasurer or in the State Street Government Money Market Fund, a short-term, open-end mutual fund under the contractual arrangement for master custody services. The balance in this investment at June 30, 2023 was \$6,403,068.

### **4. Method used to report investments and participant shares**

The TRGT is not registered with the Securities and Exchange Commission (SEC) as an investment company. The State of Tennessee has not obtained a credit quality rating for the TRGT from a nationally recognized credit ratings agency. The fair value of investment positions in the TRGT is determined daily based on the fair value of the pool's underlying portfolio. Furthermore, the State had not obtained or provided any legally binding guarantees to support the value of participant shares during the fiscal year. There are no restrictions on the sale or redemption of shares.

Investments are reported at fair value. Securities traded on a national exchange are valued at the last reported sales price. Investment income consists of realized and unrealized appreciation (depreciation) in the fair value of investments and interest and dividend income. Interest income is recognized when earned. Securities and securities transactions are recorded in the financial statements on trade-date basis.

The fair value of assets of the TRGT held at June 30, 2023 represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. Assets held are categorized for fair value measurement within the fair value hierarchy established by GAAP. The hierarchy is based on the

valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

- Level 1 - Unadjusted quoted prices for identical assets or liabilities in active markets that can be accessed at the measurement date.
- Level 2 - Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; assets or liabilities that have a bid-ask spread price in an inactive dealer market, brokered market and principal-to-principal market; and Level 1 assets or liabilities that are adjusted.
- Level 3 - Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments where fair value is measured using the Net Asset Value (“NAV”) per share have no readily determinable fair value and have been determined to be calculated consistent with FASB principles for investment companies.

Where inputs used in the measurement of fair value fall into different levels of the hierarchy, fair value of the instrument in its entirety are categorized based on the lowest level input that is significant to the valuation. This assessment requires professional judgement and as such management developed a fair value committee that worked in conjunction with our custodian and investment professionals to make these valuations. All assets held were valued individually and aggregated into classes so to be represented in the table below.

Short-term securities generally include investments in money market-type securities reported at cost plus accrued interest.

Equity and equity derivative securities classified in Level 1 are valued using last reported sales prices quoted in active markets that can be accessed at the measurement date. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities. Equity securities classified in Level 3 are valued with last trade data having limited trading volume.

US Treasury Bills, Bonds, Notes and Futures classified in Level 1 are valued using last reported sales prices quoted in active markets that can be accessed at the measurement date. Debt and debt derivative securities classified in Level 2 are valued using a bid-ask spread price from multiple independent brokers, dealers, or market principals, which are known to be actively involved in the market. Level 3 debt securities are valued using proprietary information, a single pricing source, or other unobservable inputs related to similar assets or liabilities.

Real estate investments classified in Level 3 are valued using the last valuations provided by external investment advisors or independent external appraisers. Generally, all direct real estate investments are appraised by a qualified independent appraiser(s) with the professional designation of Member of the Appraisal Institute (“MAI”), or its equivalent, every three (3) years beginning from the acquisition date of the property. The appraisals are performed using generally accepted valuation approaches applicable to the property type.

Investments in private mutual funds, traditional private equity funds, strategic lending funds and real estate funds that report using GAAP, the fair value, as well as the unfunded commitments, was determined using the prior quarter’s NAV, as reported by the fund managers, plus the current cash flows. These assets were then categorized by investment strategy. In instances where the fund investment reported using non-GAAP standards, the investment was valued using the same method, but was classified in Level 3.

# Tennessee Retiree Group Trust

## Investments Measured at Fair Value As of June 30, 2023 Expressed in Thousands

Investments at Fair Value Level	GAAP Hierarchy Level 1	GAAP Hierarchy Level 2	GAAP Hierarchy Level 3	NAV	Total Investments
Government Agencies		\$ 87,440	\$ 1,256		\$ 88,696
Government Bonds	\$ 3,601,719	29,528			3,631,247
Government Inflation Indexed	5,748				5,748
Government Mortgage Backed		3,665,989	48,533		3,714,522
Government Asset Backed		71,086			71,086
Municipal Bonds		17,371	5,888		23,259
Commercial Mortgage Backed		13,191	249,793		262,984
Corporate Asset Backed Securities		73,069	857,506		930,575
Corporate Bonds		4,127,657	79,028		4,206,685
Corporate Equities	28,794,463		41,316		28,835,779
Preferred Stocks	64,931	14,168	43,356		122,455
Limited Partnership Units			1,432,692	\$ 13,710,738	15,143,430
Real Estate			3,750,537	3,425,435	7,175,972
Derivatives		777			777
<b>TOTAL INVESTMENTS AT FAIR VALUE</b>	<b>\$ 32,466,861</b>	<b>\$ 8,100,276</b>	<b>\$ 6,509,905</b>	<b>\$ 17,136,173</b>	<b>\$ 64,213,215</b>
Cash and Cash Equivalents					874,142
Cash Collateral on Loaned Securities					3,154,310
Investment Income Receivable					148,359
Derivatives Receivable					113,604
Investments Sold					189,854
<b>TOTAL ASSETS OF TRGT</b>					<b>\$ 68,693,484</b>



The following table sets forth the additional disclosures of the TRGT’s investments, which are stated at fair value based on the net asset value “NAV” (expressed in thousands), as a practical expedient, reported by the investment managers or general partners:

Asset Classification	Strategy	Number of Funds	NAV	Remaining Life	Redemption Terms	Redemption Restrictions
Limited Partnerships	Traditional Private Equity and Strategic Lending	167	\$13,710,738	Various	N/A	Various transfer and sale restrictions
Real Estate	Real Estate Commingled Investments	43	\$3,425,434	N/A	N/A	Various transfer and sale restrictions

### Traditional Private Equity and Strategic Lending

The private equity asset class is categorized into two component portfolios: traditional and strategic lending. Generally speaking, the types of private equity strategies include venture capital, buyout, natural resource, secondary, special situations, tactical, structured credit, and high yield debt. The majority of these investments have an approximate life of 10 years or greater and are considered illiquid. During the life of the partnerships, distributions are received as underlying partnership investments are realized. Transfer or sale of the partnership interest are restricted over the life of the partnership. The TRGT has no plans to liquidate any of these investments.

### Real Estate Commingled Investments

The real estate asset class is comprised of two different investment types: direct investments and commingled investments. A commingled investment is a pooled investment vehicle comprised of real estate investments that is overseen by an external investment manager or general partner. Generally speaking, the commingled real estate investment strategies include office, retail, industrial, multi-family, and diversified. The majority of these investments have an approximate life of 10 years or greater and are considered illiquid. During the life of the pooled investment vehicle, distributions are received as underlying investments are realized. Transfer or sale of the interest are restricted over the life of the investment. The TRGT has no plans to liquidate any of these investments.

## **B: DEPOSITS AND INVESTMENTS**

### Statutory Authority

The Tennessee Retiree Group Trust (TRGT) was established in 2015 by a statutory enactment of the Tennessee General Assembly. The provisions of the TRGT are codified in *Tennessee Code Annotated* (TCA) Title 8, Chapters 34-37. Pursuant to this statute the Tennessee Consolidated Retirement System (TCRS) and its board of directors with the State Treasurer (Treasurer) as custodian, authorized by TCA 8-37-104 adopted this group trust for the purpose of pooling funds of TRGT with other assets in the custody of the Treasurer, solely for investment purposes. The

# Tennessee Retiree Group Trust

assets invested consist exclusively of assets of exempt pension and profit-sharing trusts and individual retirement accounts, custodial accounts, retirement income accounts, governmental plans and tax-exempt trusts under the Internal Revenue Code of 1986 and Rev. Rul. 81-100, as modified by Rev. Ruls. 2004-67, 2008-40 and 2011-1 (referred to herein as “Retirement Assets”). The Custodian shall be responsible for the managing and directing the investment of the Group Trust Funds in the same manner as it invests funds of the TCRS.

The TRGT currently provides an investment pool for nine separate retirement plans. These plans consist of the Tennessee Consolidated Retirement System (TCRS), the State of Tennessee 401k and 457b plans, the Employees’ Retirement System of the City of Alcoa , the City of Franklin Employees’ Plan , the City of Covington Pension Plan, the Pension Stabilization Trust for the State Employee Hybrid Retirement Plan, the Pension Stabilization Trust for the Higher Education Employee Hybrid Retirement Plan, the Pension Stabilization Trust for the Teacher Hybrid Retirement Plan and the Pension Stabilization Trust for the Local Government Employee Hybrid Retirement Plan.

The schedule below reflects the net position in the TRGT for each participant:

**Net Position of TRGT Participants**  
**As of June 30, 2023**  
*Expressed in Thousands*

Participants	Net Position
TCRS	\$ 64,544,119
401k and 457b Plans	136,877
City of Alcoa	28,089
City of Franklin	145,709
City of Covington	23,236
Stabilization Reserve - State	98,150
Stabilization Reserve - Higher Ed	44,896
Stabilization Reserve - Teacher	143,047
Stabilization Reserve - Local Gov	17,719
Total Net Position	\$ 65,181,842

The TRGT is authorized to invest in securities in accordance with the investment policy of the TCRS. That policy allows the Trust to invest in bonds, debentures, preferred stock and common stock, real estate and in other good and solvent securities subject to the approval of the Board of Trustees, but further subject to the following statutory restrictions and provisions:

- a. The total sum invested in common and preferred stocks shall not exceed seventy-five percent (75 percent) of the total of the funds of the trust.
- b. The total sum invested in notes and bonds or other fixed income securities exceeding one year in maturity shall not exceed seventy-five percent (75 percent) of the total funds of the trust.

- c. Within the restrictions in (a) and (b) above, fifteen percent (15 percent) of the total of the funds of the retirement system may be invested in securities of the same kinds, classes, and investment grades as those otherwise eligible for investment in various approved foreign countries. However, upon action of the TCRS Board of Trustees with subsequent approval by the Council on Pensions, limit has been authorized at an amount not to exceed twenty-five percent (25 percent).
- d. Within the restrictions in (a) and (b) above, funds may be invested in Canadian securities which are substantially of the same kinds, classes and investment grades as those otherwise eligible for investment.
- e. The total amount of securities loaned under a securities lending program cannot exceed thirty percent (30 percent) of total assets.
- f. The total sum invested in alternative assets shall not exceed forty percent (40 percent) of the fair value of total assets.

State statute also authorizes the TRGT to invest in forward contracts to hedge its foreign currency exposure and to purchase or sell domestic equity index futures contracts for the purpose of asset allocation relating to the domestic equity portfolio. The total amount of the financial futures contract obligation shall not exceed ten percent (10 percent) of the fair value of the TRGT's total assets. Position sizes will be measured by notional amounts. Options will be measured in their notional equivalents.

## Investment policy

The TRGT investment authority is established pursuant to *Tennessee Code Annotated* Title 8, Chapter 37. The statute provides the Board of Trustees with the responsibility to establish the investment policy of the TRGT. The investment policy may be amended by the Board. The TRGT 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 by the TCRS. The following was the Board's adopted strategic asset allocation targets as of June 30, 2023:

Portfolio	Strategic Target
Equity - United States	31%
Equity - Canadian	2%
Equity - International Developed Mkts	12%
Equity - Emerging Markets	4%
Core Fixed Income Securities	20%
Private Equity - Traditional	10%
Private Equity - Strategic Lending	10%
Real Estate	10%
Cash and Cash Equivalents	1%
Total	100%

**Securities Lending**

The TRGT is authorized to engage in securities lending agreements by TCA 8-37-104(a)(6) with the terms established in the investment policy whereby TRGT loans securities to brokers and dealers (borrower) and in turn, TRGT receives collateral as either cash or securities. TRGT pays the borrower interest on the collateral received and invests the collateral with the goal of earning a higher yield than the interest rate paid to the borrower. Loans are limited to no more than thirty percent (30%) of the fair value of the total assets in the TRGT portfolio and provided further that such loans are secured by collateral. Securities received as collateral hereunder shall have a fair value equal to at least one hundred two percent (102%) of the fair value of the loaned domestic security or one hundred five percent (105%) of any foreign security. Cash received as collateral shall equal at least one hundred percent (100%) of the fair value of the loaned securities and may be invested by or on behalf of the TRGT in any instrument the TRGT may be directly invested. Cash Collateral is held in the TRGT name and is not subject to custodial credit risk. During the year there were no violations of legal or contractual provisions by the TRGT.

The TRGT securities lending program is managed by a third-party lending agent, Deutsche Bank AG. The TRGT may loan any debt or equity securities which is owned by TRGT. Our securities lending agent manages the average maturities of securities on loan against the average maturities of securities on collateral invested. The maturity gap has a limit of 33 days. This is monitored by investment staff on a periodic basis to ensure compliance.

At June 30, 2023, the TRGT had the following securities on loan and received the collateral as shown below:

**Securities Lending  
As of June 30, 2023**

<b>Securities on Loan</b>	<b>Fair Value of Securities on Loan</b>	<b>Cash Collateral Received</b>
Fixed	\$ 934,388,922	\$ 955,138,826
Equity	2,151,395,348	2,199,170,985
<b>Total</b>	<b>\$ 3,085,784,270</b>	<b>\$ 3,154,309,811</b>

*The TRGT has the ability to sell the collateral securities only in the case of a borrower default.*

**Credit Risk**

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The credit quality distribution for the TRGT’s investments in fixed income securities at year end is included in the schedule below. Securities are rated using Standard and Poor’s and/or Moody’s and are presented below using the Standard and Poor’s rating scale. The State Pooled Investment Fund has not obtained a credit quality rating from a nationally recognized credit ratings agency.

TRGT’s investment policy specifies that bond issues subject for purchase are investment grade bonds rated by one of the Nationally Recognized Statistical Rating Organizations (NRSROs). There is no requirement to divest an asset if it is downgraded after purchase. For short-term investments, the investment policy provides for the purchase

# Tennessee Retiree Group Trust

of only the highest quality debt issues. Commercial paper should be rated in the highest tier by all rating agencies which rate the paper, with a minimum of two ratings required. Commercial paper cannot be purchased if a rating agency has the commercial paper on a negative credit watch. The investment policy also requires preparation of a credit analysis report on the corporation prior to purchasing commercial paper.

As noted below, the TRGT does not utilize its own bank accounts but invests in the State Pooled Investment Fund for its operating cash purposes. Required risk disclosures relative to the State Pooled Investment Fund are presented in the State of Tennessee Treasurer's Report. That report is available on the state's website at <https://treasury.tn.gov>.

At June 30, 2023, the TRGT had the following investments:

**Credit Quality Distribution for Securities with Credit Exposure  
as a percentage of Total Investments  
As of June 30, 2023  
*Expressed in Thousands***

Rating	Fair Value	Percentage of Total Investments
AAA	\$ 572,090	0.891%
AA	308,418	0.480%
A	1,089,984	1.697%
BBB	2,587,331	4.029%
BB	410,680	0.640%
B	150,557	0.234%
CCC	51,901	0.081%
CC	3,401	0.005%
D	320	0.000%
NR	<u>3,786,327</u>	5.896%
	8,961,009	
U. S. Government Agencies and Obligations explicitly guaranteed by the U. S. Government	<u>4,699,486</u>	
<b>Total Fixed Income Securities</b>	<b>13,660,495</b>	
Equity	28,835,779	
Real Estate	7,175,972	
Private Equities	8,747,136	
Strategic Lending	6,396,294	
Preferred Stock Not Classified as Fixed Income	122,455	
Derivative Instruments (Not Rated)	777	
Short Term Investment Fund with Custodian (NR)	(6,403)	
Short Term Investments Classified as Cash (NR)	<u>(719,290)</u>	
<b>Total Investments in TRGT</b>	<b><u>\$ 64,213,215</u></b>	

**Interest Rate Risk**

Interest rate risk is the risk that future changes in prevailing market rates of interest will have an adverse effect on the fair value of debt investments. The fair values of securities with long terms to maturity may be highly sensitive to interest rate changes. The investment policy for the TRGT states that the maturity of its debt securities may range from short-term instruments, including investments in the State Pooled Investment Fund, to long-term bonds, with consideration of liquidity needs. However, the policy does not specifically address limits on investment maturities. Duration is a measure of a debt investment’s exposure to fair value changes arising from changing interest rates. It uses the present value of cash flows weighted for those cash flows as a percentage of the investment’s full price. The TRGT had the following investments and effective duration at June 30, 2023.

**Effective Duration of Debt Investments**  
**As of June 30, 2023**  
*Expressed in Thousands*

Investment Type	Fair Value	Effective Duration (Years)
Government Agencies	\$ 88,696	7.53
Government Bonds	3,631,247	14.52
Government Inflation Indexed	5,748	0.54
Government Mortgage Backed	3,714,522	5.12
Government Asset Backed	71,086	5.44
Municipal Bonds	23,259	8.68
Commercial Mortgage Backed	262,984	2.33
Corporate Asset Backed	930,575	0.66
Corporate Bonds	4,206,685	7.95
Short-Term Securities	725,693	0.00
Total Debt Investments in TRGT	\$ 13,660,495	7.88

**Asset-Backed Securities**

The TRGT invests in various collateralized mortgage obligations (CMOs) which are mortgage-backed securities. These securities are based on cash flows from interest and principal payments on underlying mortgages and could therefore be more sensitive to prepayments by mortgagees as a result of a decline in interest rates. The fair value CMOs at June 30, 2023 was \$262,983,713 of which \$209,919,200 were CMOs that are generally more sensitive to interest rate of changes.

## Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The investment policy limits the asset allocation for international investments to twenty-five percent of total assets. The TRGT's exposure to foreign currency risk was as follows:

### Foreign Currency-Denominated Investments As of June 30, 2023 *Expressed in Thousands*

Currency	Total Fair Value	Equity	Cash
Australian Dollar	\$ 372,430	\$ 372,407	\$ 23
British Pound Sterling	1,383,117	1,379,437	3,680
Canadian Dollar	1,124,075	1,122,986	1,089
Danish Krone	296,184	296,184	0
Euro Currency	3,736,141	3,732,735	3,406
Hong Kong Dollar	158,310	158,310	0
Japanese Yen	1,436,021	1,426,419	9,602
New Israeli Shekel	3,897	3,897	0
New Zealand Dollar	1,543	1,543	0
Norwegian Krone	50,613	50,214	399
Singapore Dollar	105,411	105,406	5
Swedish Krona	228,196	226,451	1,745
Swiss Franc	562,684	562,661	23
<b>Total</b>	<b>\$ 9,458,622</b>	<b>\$ 9,438,650</b>	<b>\$ 19,972</b>

## Custodial Credit Risk

Custodial Credit Risk for deposits is the risk that in the event of a bank failure, the TRGT deposits may not be returned to TRGT. The TRGT does not have an explicit policy with regards to Custodial Credit Risk for deposits. At year end, the TRGT had uninsured and uncollateralized cash deposits of \$19,971,796 in foreign currency held by our master custodian, State Street Bank, in State Street's name. These deposits were used for investments pending settlement.

## Rate of Return

For the year, the money-weighted rate of return on investments in the TRGT, net of investment expense, was 6.71 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

## Derivatives

**Futures** - The TRGT may buy or sell fixed income and equity index futures contracts for the purposes of making asset allocation changes in an efficient and cost-effective manner and to improve liquidity. Gains (losses) on futures hedge losses (gains) produced by any deviation from the TRGT target allocation. The gains and losses resulting from daily fluctuations in the fair value of the outstanding futures contract are settled daily, on the following day, and a receivable or payable is established for any unsettled gain or loss as of the financial statement date. As of June 30, 2023, the TRGT was under contract for fixed income and equity index futures and the resulting receivable is reflected in the financial statements at fair value.

**Foreign Currency Forward Contracts** - The international securities expose the TRGT to potential losses due to a possible rise in the value of the US dollar. The TRGT investment managers can reduce foreign currency exposure by selling foreign currency forward contracts, at agreed terms and for future settlement, usually within a year. The manager will reverse the contract by buying the foreign currency before the settlement date. A gain (loss) on this transaction pair will hedge a loss (gain) on the currency movement of the international security. Foreign currency forward contracts expose the TRGT to foreign currency risk as they are denominated in foreign currency. TRGT did not hold any forward currency contracts at June 30, 2023.

**Mortgages** - The TRGT is authorized to invest in To Be Announced (TBA) mortgage-backed securities similar to the foreign currency forward contracts. The TRGT enters into agreements to purchase pools of mortgage-backed securities prior to the actual security being identified. The TRGT will roll this agreement prior to settlement date to avoid taking delivery of the security. Any unrealized gain on TBA mortgage-backed securities has been reflected in the financial statements as an investment. Any unrealized loss on TBA mortgage-backed securities has been included in the payable established for the mortgages. The notional amounts of these agreements have been included in the financial statements as a receivable and a payable. The TRGT invests in these derivatives to adjust its exposure to mortgage coupon risk and to replicate the return on mortgage-backed securities portfolios without actually purchasing the security.

**Credit Default Swaps** - The TRGT may invest in Credit Default Swaps to offset credit risk of fixed income investments. The TRGT may enter into a contract and pay an ongoing premium in exchange for the seller to pay the security's value and interest payments if a default occurs. As of June 30, 2023, the TRGT was under contract for Credit Default Swaps and the resulting payable is reflected in the financial statements at fair value.

The fair value balances and notional amounts of derivative instruments outstanding at year end, classified by type, and the changes in fair value of derivative instrument types for the year ended as reported in the financial statements are as follows:



# Tennessee Retiree Group Trust

## Derivative Summary As of June 30, 2023 Expressed in Thousands

	Changes in Fair Value		Fair Value		
	Financial Statement Classification	Amount	Financial Statement Classification	Amount	Notional Amount
<b>Futures Contracts</b>	Investment Income (Loss)	\$ (45,384)	Derivative Instruments Receivable	\$ 3,952	\$ 2,725,643
<b>Swaps Contracts</b>	Investment Income (Loss)	\$ 20	Derivative Instruments Receivable	\$ 0	\$ (26)
<b>TBA Mortgage Backed Securities</b>	Investment Income (Loss)	\$ 777	Derivative Instruments Payable	\$ 777	\$ (77,215)

Futures, Credit Default Swaps, and TBA mortgage-backed securities are exchange traded and their price is based on quoted market prices at year end. It is the TRGT policy to conduct derivative transactions through the custodian bank and high-quality money center banks or brokerage firms. The credit risk of futures contracts is managed by maintaining a daily variation margin.

### Alternative Investments

The TRGT has investments in strategic lending, private equity funds and real estate with an estimated fair value of \$22,319,402,038 at June 30, 2023. Because these investments are not readily marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for the investments existed, and such differences could be material. Title to real property invested in by TRGT is held by real estate investment holding companies.

### Commitments

**Standby Commercial Paper Purchase Agreement:** The TRGT has agreed to serve as standby commercial paper purchaser for commercial paper issued by the Funding Board of the State of Tennessee. By serving as a standby commercial paper purchaser, the TRGT receives an annual fee of 35 basis points on the \$350 million maximum issuance under this agreement during times when both Moody's and Standard and Poor's investment ratings assigned to the State of Tennessee's general obligation bonds are Aaa and AAA respectively, 45 basis points during times when either Moody's or Standard and Poor's has assigned ratings of Aa and AA respectively, or 55 basis points during times when either Moody's or Standard and Poor's has assigned ratings lower than Aa and AA respectively. In the unlikely event that the TRGT would be called upon to purchase the commercial paper, the TRGT would receive interest at a rate equal to prime plus 150 basis points subject to a floor of 5 percent (5%); provided, however, in no event shall the Standby Purchase Rate be in excess of the maximum rate as defined in Section 47-14-103, *Tennessee Code Annotated*.

**Alternative Investments:** The TRGT had unfunded commitments of \$8,139,028,807 in private equity, strategic lending, and real estate commitments at year end.