

**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
BOARD OF TRUSTEES MEETING
JUNE 29, 2018**

Page is intended to be blank

**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
BOARD OF TRUSTEES MEETING
JUNE 29, 2018**

TABLE OF CONTENTS

Minutes of the Board of Trustees	3
Committee Minutes	
Administrative Committee.....	9
Audit Committee	11
Investment Committee.....	15
Political Subdivision Seeking Membership	
Red Boiling Springs	23
Statistical Reports	
Active Member Statistics	31
Retired Payroll Statistics	32
Refund Activity and Expenditures	34
Prior Service Activity	36
Disability Retirement Report	
Disability Statistical Report	41
Approved for Disability	43
Disapproved for Disability	47
TCRS Financial Report.....	51

Page is intended to be blank

**MINUTES OF THE
BOARD OF TRUSTEES MEETING
MARCH 23, 2018**

Page is intended to be blank

Minutes of the TCRS Board of Trustees meeting on March 23, 2018

The Board of Trustees of the Tennessee Consolidated Retirement System met on Friday, March 23, 2018 at 10:10 a.m. The meeting was held in House Hearing Room III of the Cordell Hull Building with Chairman David Lillard presiding.

Chairman Lillard asked Mr. Wayman to conduct an attendance roll call. The following members were present: Chairman David Lillard, State Treasurer; Mr. Jamie Wayman, Director of TCRS; Ms. Deborah Tate, Administrative Director of the Courts; Commissioner Rebecca Hunter, Department of Human Resources; Mr. Michael Barker, Mr. Bill Kemp, Mr. Harold Morrison, Mr. Bob Wormsley, Mr. Ken Wilber, Mr. Alfred Laney, Mr. Paul Varble, Mr. Ed Taylor and Ms. Patsy Moore.

Approval of the November 30, 2017 Minutes of the Board of Trustees

On a motion by Mr. Varble and seconded by Chairman Lillard, the minutes of the November 30, 2017 TCRS Board of Trustees meeting were unanimously approved.

Board of Trustees Committee Reports

Chairman Lillard recognized Mr. Wayman to review the administrative committee report. Mr. Wayman mentioned the committee reviewed the political subdivisions seeking participation into TCRS. Mr. Wayman mentioned the committee was given an update from the Director of Employer Reporting and Customer Service related to the phone calls and services provided to members through meetings. Ms. Erica Nale provided an update on retirement operations. The administrative committee also received an update on legislation.

Chairman Lillard recognized Mr. Barker to review the audit committee report. Mr. Barker mentioned the committee approved minutes from the previous meeting. Mr. Earle Pierce provided reports on several different projects. He also provided the committee audit reports that have been successfully completed by internal audit. The committee reviewed four opinion letters from state audit but no findings were reported. Next the committee reviewed the private equity disclosure and the Comptroller hotline no submissions were reported. Mr. Barker mentioned the committee reviewed an article regarding internal audit. The audit committee recognized Ms. Jennifer Selliers promotion in the department.

Chairman Lillard provided the investment committee report. Chairman Lillard mentioned the committee approved two strategic lending transactions and a third transaction is under advisement for further consideration. Mr. Brakebill reviewed the investment performance and Verus executive summary performance report.

Investment Report

Chairman Lillard called on Mr. Michael Brakebill and Mrs. Margaret Jadallah of Verus Investments to give an overview of the Investment Report. Mrs. Jadallah reviewed the Verus Executive Summary Report, which showed the fund ended 2017 with just over \$50 billion in

assets under management. The review began by describing the key characteristics of 2017 within the markets which included globally synchronized growth, low inflation, and low equity market volatility. Mrs. Jadallah then stated the TCRS portfolio returned 16.27% for the year, beating its benchmark by 0.70% and significantly beating the actuarial rate of return. International Equities was the best performing portfolio for the plan, returning 29.47%.

Mr. Brakebill then discussed performance since the end of the year. TCRS assets had reached a value over \$52 billion, but have since fallen to \$49.5 billion, representing a 5% correction. Mr. Brakebill noted staff continues to see high valuations across the capital markets and have been assessing risk accordingly. Mr. Brakebill then highlighted that the 10-year annualized return figure of 6.32% outperformed 78% of peers.

Mr. Brakebill concluded by reviewing key initiatives for the year. This included continuing to deploy capital in to the alternative asset portfolios as they build toward their target allocations as well as the expiration of international equity manager contracts. Accordingly, manager selection and contract renewals are underway.

Political Subdivisions Petitioning for Membership in TCRS

Chairman Lillard introduced Mr. Wayman to review political subdivisions seeking participation into TCRS. Mr. Wayman reviewed the requests for participation in TCRS for the Bolivar-Hardeman County Library, Town of Halls, Obion County Emergency Communications District, and Upper Cumberland Regional Airport. The Bolivar-Hardeman County Library and Upper Cumberland Regional Airport selected the legacy pension plan. The Town of Halls and Obion County Emergency Communications District selected the hybrid plan without cost control.

On a motion by Mr. Wormsley and seconded by Mr. Barker, the Board unanimously approved the requests for participation in TCRS for the Bolivar-Hardeman County Library, Town of Halls, Obion County Emergency Communications District, and Upper Cumberland Regional Airport.

Actuarial Valuation Presentation

Chairman Lillard introduced Mr. Justin Thacker from Bryan, Pendleton, Swats, and McAllister to review the actuarial valuation presentation on the Hybrid plan. Mr. Thacker noted the purpose of the actuarial valuation is to determine the actuarially determined contribution rates and the total employer contribution rates for the defined benefit component of the Hybrid plan and examine the financial health of the plan. He also mentioned that there is a separate process and reporting for GASB 67/68 information.

As determined by the July 1, 2017 actuarial valuation, the actuarially determined contribution rates and the total employer contribution rates for the defined benefit component of the Hybrid plan will be as follows: for the state general employee the rate will be 1.66%, the public safety bridge rate will be .85%, state judges rate will be 7.43% and the rate for teachers will be 1.94%. The overall total weighted average employer rate will be 4.00%. The total employer contribution rate will be broken down as follows: the state general employee rate will be 3.95%, the public

safety bridge rate will be .85%, state judges rate will be 7.43%, and the rate for teachers will be 4.00%. The new employer contribution rates will go into effect July 1, 2018

On a motion by Mr. Varble and seconded by Commissioner Hunter, the Board unanimously approved the new employer contribution rates.

Other Business

Chairman Lillard announced future meetings. He reminded Board members that a Board educational session will take place after the meeting.

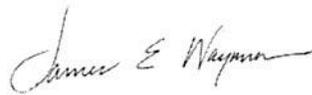
Adjournment

Chairman Lillard announced the completion of the business at hand and asked if there was any other business to come before the Board.

On a motion by Ms. Taylor Tate and seconded by Commissioner Hunter, the Board unanimously approved the TCRS Board of Trustees meeting be adjourned.

With no other business, the Board of Trustees adjourned at 10:58 a.m. on March 23, 2018.

Respectfully Submitted,



**Jamie Wayman
Director, TCRS**

Approved:

**David H. Lillard, Jr.
Chairman of the Board**

Page is intended to be blank

COMMITTEE MINUTES

Page is intended to be blank

Minutes of the Administrative Committee

March 23, 2018

The Administrative Committee of the Board of Trustees of the Tennessee Consolidated Retirement System met on Friday, March 23, 2018 at 9:00 a.m. The meeting was held in House Hearing Room V, First Floor Cordell Hull Building with Director Jamie Wayman presiding.

The following members were present: Mr. Paul Varble, Mr. Alfred Laney, Ms. Patsy Moore, Ms. Deborah Taylor Tate, and Mr. Harold Morrison.

Approval of the September 29, 2017 Minutes of the TCRS Administrative Committee

On a motion by Mr. Varble and seconded by Ms. Tate, the minutes of the September 29, 2017 TCRS Administrative Committee meeting were unanimously approved.

Political Subdivision Update

Mr. Wayman introduced Ms. Joy Harris, Assistant Treasurer for Financial Empowerment, to discuss four employers seeking participation in TCRS. The following political subdivisions are seeking entry into TCRS: Bolivar Hardeman Library is seeking participation effective April 1, 2018 in the Regular Defined Benefit Plan; Obion County 911 is seeking participation effective April 1, 2018 in the Local Government Hybrid Plan; Town of Halls is seeking participation effective April 1, 2018 in the Local Government Hybrid Plan; and Upper Cumberland Regional Airport is seeking participation effective April 1, 2018 in the Regular Defined Benefit Plan.

On a motion by Mr. Varble and seconded by Mr. Laney, the Administrative Committee unanimously recommended to the Board of Trustees that all entities be allowed entry to TCRS.

Operations Update

Mr. Wayman introduced Ms. Mary Beth Franklyn to discuss Employer and Participant Education. Ms. Franklyn discussed the number of phone calls and meetings with employers during the prior fiscal year. Next Ms. Erica Nale discussed the reduced processing time for retirement applications, successful generation of 1099s, a new training position dedicated to maintaining internal communication and compliance, and internal testing and discussions regarding the security of the Self-Service website. In addition, Ms. Nale discussed lessons learned from the Iowa Public Employees Retirement System after Iowa experienced an account takeover of some member's accounts.

Pending Legislation

Mr. Wayman provided a summary of pending legislation in the General Assembly. All legislation impacting TCRS is first presented to the Council on Pensions and Insurance. There was a discussion on the TCRS Housekeeping bill, which contains 27 sections with minimal impact to TCRS. A bill specific to the Optional Retirement Plan available to Higher Education employees which modifies their distribution options. The Stabilization Reserve bill allows the reserve funds to be co-invested with TCRS assets. Finally two bills related to public pension plans outside of TCRS, which allow Treasury to invest their assets and a clarification to reporting under the Public Employee Defined Benefit Financial Security Act of 2014.

Other Business

Mr. Wayman informed the committee that the actuary would be presenting information on the Hybrid plan during the full meeting.

Adjournment

With no other business, the Administrative Committee of the Board of Trustees adjourned at 9:45 a.m. on March 23, 2018.

Respectfully Submitted,

A handwritten signature in black ink that reads "Erica Nale". The signature is written in a cursive style with a large initial "E".

Erica Nale

Assistant Director, TCRS

Approved:

James E. Wayman

Administrative Committee Chair

**AUDIT COMMITTEE MEETING MINUTES
OF TENNESSEE CONSOLIDATED RETIREMENT SYSTEM (TCRS)
March 23, 2018**

The Tennessee Consolidated Retirement System (TCRS) Audit Committee for the Board of Trustees met on Friday, March 23, 2018. The meeting began at 8:00 a.m. in the Cordell Hull Building, Hearing Room 4.

The following members were present:

- Chairman Michael Barker
- Ed Taylor, TCRS Board Member
- Rebecca Hunter, Commissioner of DOHR
- Tre Hargett, Secretary of State
- Mayor Ken Wilber, TN Municipal League

Others present were:

- David H. Lillard, Jr., TN State Treasurer
- Earle Pierce, Director of Internal Audit, TN Dept. of Treasury
- Jennifer Selliers, Director of Internal Compliance, TN Dept. of Treasury
- Heather Iverson, Attorney, TN Dept. of Treasury
- Jamie Wayman, Director of TCRS
- Kevin Gentry, Assistant Audit Director, TN Dept. of Treasury
- Alison Cleaves, Attorney, TN Dept. of Treasury

Call Meeting to Order

Chairman Barker called the meeting to order and presented the minutes from the November 30, 2017 Audit Committee meeting for approval. Secretary Tre Hargett motioned to accept the minutes as presented and Ed Taylor seconded the motion. The minutes were unanimously approved from the November 2017 Audit Committee meeting.

Internal Audit Results

Earle Pierce presented the final results for the following Treasury internal audits:

- FY2018 Investments Compliance Audit
- FY2017 Investment Division Incentive Compensation Plan Audit
- FY2018 Private Equity Follow Up Audit

Treasurer Lillard provided some additional insights on why the bonuses paid for fiscal year 2017 were in excess the bonus pool plan budget for Investment Division employees. The documented decision was an exception to the compensation plan which the Treasurer has a right to make per the plan document. He also commented on Internal Audit's recommendation

to improve the qualitative scoring portion of the incentive compensation plan. He and the Management team are working to address those issues. Commissioner Hunter commended the work of Internal Audit to identify the issues related to qualitative scoring for the incentive compensation plan and the recommendation to have such scoring reviewed and approved by the next level supervisor. Treasurer Lillard added he, Chief Investment Officer Michael Brakebill and Deputy Chief Investment Officer Derrick Dagnan review every Investment Division employee's performance in great detail before any incentives are paid to them. Audit Director Pierce summarized the discussion of the incentive plan audit by stating Internal Audit's review of the plan was performed after the incentive plan's development, but before payment of any incentives as a proactive, collaborative effort with Management to ensure the process was calculated and performed per the plan document.

Current Projects for TCRS

Mr. Pierce reviewed the schedule of internal audits completed for TCRS. This included a discussion of current TCRS audit projects as well as those in the design phase.

GASB 68 & Financial Statement State Audit Opinion Letters

Mr. Pierce reviewed the opinion letters received from State Audit for the following audits:

- Schedule of Employer Allocations of the Teacher Retirement Plan of TCRS as of and for the year ended June 30, 2016 and related notes
- Schedule of Employer Allocations of the Teacher Legacy Pension Plan of TCRS as of and for the year ended June 30, 2016 and related notes
- Financial Statement audit of TCRS and pension trust funds of the State of Tennessee as of and for the year ended June 30, 2017 and related notes
- Accompanying statement of fiduciary net position of the Tennessee Consolidated Retirement System and pension trust funds of the State of Tennessee as of and for the year ended June 30, 2017 and related notes

The letters contained unmodified opinions for all four audits.

Private Equity Disclosure

Chairman Barker reviewed the Private Equity Disclosure and asked if there were any questions. Secretary Hargett asked about the Investment Division employees present at the meetings. Mr. Pierce explained the listing included the names of the main TCRS investment employee contacted by those outside of TCRS contacting them about alternative investments; however, the names of all TCRS investment employees present during meetings are listed in a separate column titled Staff Present. Treasurer Lillard further clarified this listing represents the "Pitch"

meetings where representatives from the different private equity firms made presentations to Investment division employees listed in the disclosure report.

Comptroller's Hotline

Mr. Pierce informed the Committee there were no hotline submissions related to TCRS received by the Comptroller's office since the previous Audit Committee meeting in November 2017.

Current Internal Audit Article

Mr. Pierce discussed the article which discussed data analytics as a strategy vital to internal audit effectiveness.

Other Business

No other business was discussed.

Adjournment

Mayor Wilber motioned to adjourn and Ed Taylor seconded the motion. The motion to adjourn was unanimously approved. The meeting adjourned at approximately 8:48 a.m.

Meeting minutes documented by

Earle Pierce, CPA, CIA, CRMA
Director of Internal Audit
Tennessee Department of Treasury

Approved by:

Michael Barker
Chairman of the Audit Committee

Page is intended to be blank

**Minutes of the Meeting of the Investment Committee
September 5, 2017**

The Investment Committee of the Tennessee Consolidated Retirement System (TCRS) met on September 5, 2017 in the State Capitol. The Honorable David H. Lillard, Jr., State Treasurer, called the meeting to order at 10:30 AM. Investment Committee members in attendance included: Treasurer Lillard; Mr. Bob Wormsley, President/CEO of Local Government Insurance Pool; Mr. Bill Kemp, Sumner County Clerk. Additional attendees included: Richard Newton, F&A Division of Budget; Keith Boring, Director of Policy & Research; William Wood, Comptroller's Office; Michael Brakebill, Chief Investment Officer; Derrick Dagnan, Deputy Chief Investment Officer; Daniel Crews, Director of Private Equity; Carrie Green, Senior Portfolio Manager; Matthew Haitas, Senior Portfolio Manager; Jeff Dunn, Senior Portfolio Manager; Jennifer Selliers, Compliance Officer; Andrew Messer, Compliance Analyst; Jay Bullie, Senior Credit Analyst.

Michael Brakebill began the meeting by asking Matthew Haitas to quickly summarize the real estate portfolio's exposure to Hurricane Harvey and the Houston MSA. Mr. Haitas stated that TCRS owned three properties in the Houston market. All three properties were fully operational with limited damage to their exterior and interior structures.

After the Houston property review, Treasurer Lillard called upon Derrick Dagnan to present a recommendation for a separate account manager in the strategic lending portfolio. Mr. Dagnan recommended an allocation of up to \$150 million with a \$500 million maximum allocation to an investment management agreement with Lord Abbett for a US high yield bond portfolio. Staff suggests making a change to terminate the existing manager, Neuberger Berman. Mr. Dagnan stressed that the initial \$150 million investment was a direct transfer of the high yield bond allocation from Neuberger Berman. The request authorized the approval of an additional \$350 million of TCRS capital at a later date based on completion of the management transition and accommodation of expected future growth of the strategic lending portfolio.

The Treasurer then motioned to approve the investment which was seconded by Secretary Hargett. The motion was approved unanimously by voice vote.

Jeff Dunn presented a second recommendation for strategic lending. Mr. Dunn recommended a commitment of up to \$150 million to Berkshire Multifamily Debt Fund II. Berkshire's investment philosophy and process along with the superior risk adjusted returns of the strategy in prior funds were discussed in detail. Mr. Haitas highlighted TCRS's prior experience with Berkshire's real estate investment platform and their long running relationship with TCRS through participation in previous real estate equity funds.

Treasurer Lillard motioned to approve the investment which was seconded by Mr. Bob Wormsley. The motion was approved unanimously by voice vote.

The committee was notified of a commitment of \$50 million to Green Oak Fund III and a \$50 million commitment to Savanna Real Estate Fund IV for the real estate portfolio. Matthew Haitas reviewed investment strategy, return profile, and investment horizon of the two strategies.

Carrie Green presented a recommendation for Charlesbank Equity Fund IX for the private equity portfolio. Staff recommends a commitment of up to \$75 million in the fund, with discretion to invest an

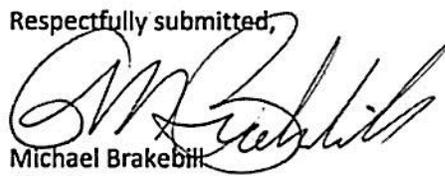
additional \$35 million to an overage fund for potential co-investment opportunities. Recommendation was based on impressive track record of the investment professionals and the diversification benefits of adding a middle-market value-oriented fund to the private equity portfolio. Staff is confident in the firm's expertise, strategy, and risk adjusted returns based on a previous investment in Charlesbank Equity Fund VIII and ongoing monitoring and diligence.

Secretary Hargett then motioned to approve the investment which was seconded by Mr. Bob Wormsley. The motion was approved unanimously by voice vote.

The committee was notified of an investment of up to \$50 million in Institutional Venture Partners XVI, L.P. Daniel Crews stated that the fund is a late stage venture capital fund. This is the third investment with this firm, who has a proven track record in the venture capital sector.

The Treasurer then adjourned the meeting at 11:30 AM.

Respectfully submitted,



Michael Brakebill
Chief Investment Officer

APPROVED:

David H. Lillard, Jr. Chairman
TCRS Board of Trustees

**Minutes of the Meeting of the Investment Committee
March 23, 2018**

The Investment Committee of the Tennessee Consolidated Retirement System (TCRS) met on March 23, 2018 in the Cordell Hall Building. The Honorable David H. Lillard, Jr., State Treasurer, called the meeting to order at 9:00 AM. Investment Committee members in attendance included: Treasurer Lillard; Honorable Tre Hargett, Secretary of State; Mr. Bob Wormsley, President/CEO of Local Government Insurance Pool; Mr. Bill Kemp; Sumner County Clerk. Additional attendees included: Keith Boring, Director of Policy & Research; William Wood, Comptroller's Office; Michael Brakebill, Chief Investment Officer; Derrick Dagnan, Deputy Chief Investment Officer; Daniel Crews, Director of Private Equity; Thomas Kim, Director of Fixed Income; Jeff Dunn, Senior Portfolio Manager; Matthew Haitas, Senior Portfolio Manager; Jay Bullie, Senior Credit Analyst; Jennifer Selliers, Investment Compliance Officer; Gillian Johnson, Assistant Director of Communications; Richard Newton, F&A Division of Budget; Andrew Messer, Investment Risk and Compliance Analyst; Austin Monsrud, Junior Investment Analyst; Margaret Jadallah, Verus Investments.

Treasurer Lillard began the meeting with a motion to approve the minutes from June 23, 2017, September 5, 2017, November 17, 2017, December 12, 2017, January 10, 2018, and February 28, 2018. The motion was seconded by Mr. Wormsley and was approved unanimously by voice vote.

The Treasurer then asked Mr. Jeff Dunn to present strategic lending transactions. Mr. Dunn recommended an allocation of \$150 million, with the ability to increase up to \$500 million with further approval by the Treasurer at a later date, to GoldenTree Opportunistic Credit Account. Dunn explained the investment as a replacement for another separately managed account that Staff has decided to wind down at a later date. Dunn discussed GoldenTree's differentiated strategy and other merits of the investment that the team expects to add value to the portfolio.

Mr. Kemp then motioned to approve the transaction which was seconded by Secretary Hargett. The motion was approved unanimously by voice vote.

The Treasurer called on Mr. Derrick Dagnan to present another strategic lending transaction. Mr. Dagnan recommended a commitment of \$150 million to ICG Europe Fund VII. Mr. Dagnan elaborated on TCRS' existing relationship with the firm between this funds predecessor as well as a recent commitment to ICG North America Private Debt Fund II. Given the existing relationship, firms track record, along with low loss ratio since 1989, Mr. Dagnan explained that staff is confident in ICG's ability to execute this strategy effectively.

Treasurer Lillard motioned to approve the transaction which was seconded by Mr. Kemp. The motion was approved unanimously by voice vote.

Mr. Dagnan then discussed a transaction to be proposed at a later date with the full Investment Committee in attendance, due to its unique structure. The investment involves contributing to a diverse portfolio of credit facilities for private equity owned middle market companies. The team expressed the merits of the investment and detailed diligence procedures of its evaluation but ultimately it was decided that further consideration is warranted.

The Treasurer then called upon Ms. Margaret Jadallah of Verus Investments to discuss TCRS performance for 2017. Ms. Jadallah reviewed the Verus Executive Summary Report, which showed the fund ended 2017 with just over \$50 billion in assets under management. The review began by describing the key characteristics of 2017 within the markets which included globally synchronized growth, low inflation, and low equity market volatility. Ms. Jadallah then stated that the TCRS portfolio returned 16.27% for the year, beating its benchmark by 0.70% and significantly beating the actuarial rate of return. International Equities was the best performing portfolio for the plan, returning 29.47%.

Michael Brakebill then continued on performance stating that at their peak, TCRS assets had been valued at over \$52 billion but have since fallen to \$49.5 billion, representing a 5% correction. Noting that staff continues to see high valuations across the capital markets and have been assessing risk accordingly. Brakebill then highlighted that the 10-year annualized return figure of 6.32% outperformed 78% of peers.

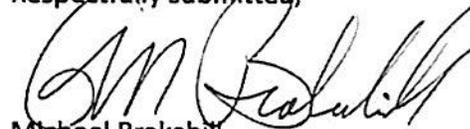
Mr. Brakebill concluded by reviewing key initiatives for the year. This included continuing to deploy capital in to the alternative asset portfolios as they build toward their target allocations as well as the expiration of international equity manager contracts this year. Accordingly, manager selection and contract renewals are underway.

Matthew Haitas then provided the committee with a description of a recent real estate investment. Staff identified a dislocation in private real estate valuations and publicly traded REITs, finding that the levels at which REITs are trading at to be significantly below private equivalents. With research of past trends in this divergence and conviction that the valuations would converge, the team decided to invest in a portfolio of REITs identified to possess attractive potential and valuations.

Following Mr. Haitas' update on the real estate portfolio, Thomas Kim then introduced Jay Bullie to the Investment Committee, who joined TCRS in 2017 as a Senior Credit Analyst. Mr. Bullie was previously employed at Fitch Ratings, where he focused on CMBS securities. Mr. Brakebill then introduced Austin Monsrud, who also joined TCRS in 2017 as a Junior Investment Analyst focusing on the alternative asset portfolios.

Seeing no further questions for Mr. Brakebill, the Treasurer then adjourned the meeting at 10:03 AM.

Respectfully submitted,



Michael Brakebill
Chief Investment Officer

APPROVED:

David H. Lillard, Jr. Chairman
TCRS Board of Trustees

**Minutes of the Meeting of the Investment Committee
May 24, 2018**

The Investment Committee of the Tennessee Consolidated Retirement System (TCRS) met on May 24, 2018 in the State Capitol. The Honorable David H. Lillard, Jr., State Treasurer, called the meeting to order at 1:00 PM. Investment Committee members in attendance included: Treasurer Lillard; Honorable Tre Hargett, Secretary of State; Mr. Bill Kemp, Sumner County Clerk. Additional attendees included: Keith Boring, Director of Policy & Research; Richard Newton, F&A Division of Budget; William Wood, Comptroller's Office; Mr. Michael Brakebill, Chief Investment Officer; Derrick Dagnan, Deputy Chief Investment Officer; JP Rachmaninoff, Director of Real Estate; Matthew Haitas, Senior Portfolio Manager; Jeff Dunn, Senior Portfolio Manager; Jennifer Selliers, Investment Compliance Officer; Stephen Wright, Real Estate Analyst; Austin Monsrud, Junior Investment Analyst.

Treasurer Lillard began the meeting by asking Jeff Dunn to present a strategic lending transaction for approval.

Mr. Dunn recommended a \$125 million commitment to GSO Energy Select Opportunities Fund II. This investment would help increase the portfolios, currently limited, exposure to the energy sector. He stated that TCRS has an existing relationship with this manager through the GSO Credit Alpha, and GSO Credit Alpha II funds, which were committed to in 2015 and 2018, respectively. The strategy will provide flexible capital to energy sector companies to be used for M&A, product development, and occasionally rescue finance. The GSO Energy team has been successfully investing in the energy space since 2005, weathering two cycles with outstanding performance. Mr. Dunn stated this provides the team with confidence in GSO's ability to execute on this strategy.

Mr. Bill Kemp then motioned to approve the transaction and it was seconded by Secretary Hargett. The motion was approved unanimously by voice vote.

The Treasurer then called upon J.P. Rachmaninoff to present a real estate transaction for approval. Mr. Rachmaninoff recommended an increase in commitment of \$10 million to Beacon Capital Strategic Partners VIII. He explained that earlier this year, TCRS's initial investment in Beacon was approved for \$65 million; however, an additional \$10 million would allow for a net reduction in management fees, benefiting the portfolio. Beacon invests in central business district office assets located in key markets such as New York, Chicago, and Los Angeles. These are areas which it would be difficult for TCRS to invest in directly due to the large amount of capital required, Mr. Rachmaninoff continued.

The Treasurer then motioned to approve the transaction and it was seconded by Secretary Hargett. The motion was approved unanimously by voice vote.

Michael Brakebill then discussed overall TCRS performance, stating that TCRS currently sits at \$49.9 billion in assets, which represents 8.4% return fiscal year-to-date. Mr. Brakebill elaborated

on the ongoing manager selection process for both the real estate and international equity portfolios, stating that the committee will be seeing the results soon. As for the overall market, Brakebill noted how the 10-year yield reached 3.1%, having since backed away. He also noted the team is anticipating rate hikes at both the June and September Federal Reserve meetings. Mr. Brakebill then commented on a recent Bridgewater Associates research report that estimates the unwinding of the Fed's balance sheet will equate to a 200 basis point increase in interest rates through the end of 2019. Given the current environment, Brakebill remarked that the team isn't making any significant bets in which direction the market will go and remains close to the strategic asset allocation.

The Treasurer then adjourned the meeting at 1:20 PM.

Respectfully submitted,



Michael Brakebill
Chief Investment Officer

APPROVED:

David H. Lillard, Jr. Chairman
TCRS Board of Trustees

**POLITICAL SUBDIVISIONS
SEEKING MEMBERSHIP**

Page is intended to be blank

**Political Subdivisions Beginning Participation
in the Tennessee Consolidated Retirement System
July 1, 2018**

Political Subdivision	Amount of Service Employer	Employee	ER Rate	EE Rate	Accrued Liability	Part Time Coverage	Cost of Living	Number of Employees
-----------------------	-------------------------------	----------	---------	---------	----------------------	-----------------------	----------------	------------------------

Red Boiling Springs	0	0	6.5%	5.00%	\$0	Excluded	Include	17
Regular Defined Benefit Plan								

Meetings:

September 2017	Explained initial employer costs and participating procedures to the governing body.
July 2018	Will explain reporting procedures to payroll officer(s).

Additional Notes:

Page is intended to be blank

**Tennessee Consolidated
Retirement System**

RESOLUTION #R5-2018-1

A RESOLUTION to authorize a political subdivision's participation in the Tennessee Consolidated Retirement System in accordance with Tennessee Code Annotated, Title 8, Chapters 34 – 37.

WHEREAS, Tennessee Code Annotated, Title 8, Chapter 35, Part 2 allows a political subdivision to participate in the Tennessee Consolidated Retirement System ("TCRS") subject to the approval of the TCRS Board of Trustees; and

WHEREAS, the City of Red Boiling Springs desires to participate in TCRS under the provisions of Tennessee Code Annotated, Title 8, Chapters 34 – 37 and in accordance with the following terms and conditions:

- A. **TYPE PLAN.** *(CHECK BOX 1 OR BOX 2 OR BOX 3 OR BOX 4).* The Political Subdivision adopts the following type plan:
- (1) Regular Defined Benefit Plan.
 - (2) Alternate Defined Benefit Plan.
 - (3) Local Government Hybrid Plan *(If this Plan is chosen, the Political Subdivision MUST also maintain a defined contribution plan on behalf of its employees and pass the attached resolution that describes the type of defined contribution plan the Political Subdivision will adopt. The defined contribution plan could provide for employer contributions of 0% to up to 7% of its employees' salaries).*
 - (4) State Employee and Teacher Hybrid Plan *(If this Plan is chosen, the Political Subdivision MUST also maintain a defined contribution plan on behalf of its employees whereby the Political Subdivision makes a mandatory employer contribution on behalf of each of its employees participating in the Hybrid Plan equal to 5% of the respective employee's salary subject to the cost controls and unfunded liability controls of the Hybrid Plan. The Political Subdivision must also pass the attached resolution that describes the type of defined contribution plan the Political Subdivision will adopt).*
- B. **EMPLOYEE CONTRIBUTIONS.** *(CHECK BOX 1 OR BOX 2 OR BOX 3 - IF THE STATE EMPLOYEE AND TEACHER HYBRID PLAN IS SELECTED ABOVE, THE EMPLOYEES MUST CONTRIBUTE 5% OF THEIR EARNABLE COMPENSATION UNDER THAT PLAN AND BOX 1 MUST BE CHECKED).* The Employees shall contribute:
- (1) 5% of the employees' earnable compensation.
 - (2) 2.5% of the employees' earnable compensation.
 - (3) 0% of the employees' earnable compensation.
- C. **COST-OF-LIVING INCREASES FOR RETIREES.** *(CHECK BOX 1 OR BOX 2 - IF EITHER THE LOCAL GOVERNMENT, OR THE STATE EMPLOYEE AND TEACHER HYBRID PLAN IS SELECTED ABOVE, COST-OF-LIVING INCREASES FOR RETIREES MUST BE GIVEN, SUBJECT TO ANY APPLICABLE COST CONTROLS AND UNFUNDED LIABILITY CONTROLS AND BOX 2 MUST BE CHECKED).* The Political Subdivision shall:
- (1) NOT provide cost-of-living increases for its retirees.
 - (2) PROVIDE cost-of-living increases for its retirees.
- D. **ELIGIBILITY OF PART-TIME EMPLOYEES.** *(CHECK BOX 1 OR BOX 2).* The Political Subdivision shall:
- (1) NOT allow its part-time employees to participate in TCRS.
 - (2) ALLOW its part-time employees to participate in TCRS.
- E. **PRIOR SERVICE.** *(CHECK AND COMPLETE BOX 1 OR BOX 2 OR BOX 3 OR BOX 4 OR BOX 5 - CAUTION: IF THE STATE EMPLOYEE AND TEACHER HYBRID PLAN IS SELECTED ABOVE AND IF BOX 3 BELOW IS NOT*

CHOSEN, THE EMPLOYER CONTRIBUTION COULD EXCEED 4% THEREBY CAUSING THE COST CONTROLS AND UNFUNDED LIABILITY CONTROLS TO AUTOMATICALLY APPLY. ACCORDINGLY, PRIOR SERVICE IS NOT RECOMMENDED). For each employee employed with the Political Subdivision on the effective date of the Political Subdivision's participation in TCRS, the Political Subdivision shall:

- (1) [] Purchase ALL years of prior service credit on behalf of its employees.
- (2) [] Purchase NO years of prior service credit on behalf of its employees, but shall accept the unfunded liability should its employees establish ALL years of prior service.
- (3) [X] NOT allow its employees to establish any prior service credit with the Political Subdivision.
- (4) [] Purchase _____ years of prior service credit on behalf of its employees and accept the unfunded liability should its employees establish an additional _____ years of prior service credit.
- (5) [] Purchase _____ years of prior service credit on behalf of its employees and no additional prior service credit may be established; and

F. MAXIMUM UNFUNDED LIABILITY. (COMPLETE THIS ITEM F ONLY IF THE STATE EMPLOYEE AND TEACHER HYBRID PLAN IS SELECTED ABOVE). For purposes of the cost control provisions of Tennessee Code Annotated, Section 8-36-922(d), the Political Subdivision defines "maximum unfunded liability" to mean an unfunded liability of no greater than N/A; and

WHEREAS, the liability for participation and costs of administration shall be the sole responsibility of the Political Subdivision and not the State of Tennessee; and

WHEREAS, the Political Subdivision has passed a budget amendment appropriating the funds necessary to meet such liability and the same is attached hereto; and

WHEREAS, the effective date of participation shall be on July 1, 2018, or on such later date as determined by the TCRS Board of Trustees, and the initial employer contribution rate shall be 6.5%, which is based on the estimated lump sum accrued liability of \$-0-.

NOW, THEREFORE, BE IT RESOLVED That the City Council of Red Boiling Springs hereby authorizes all its employees in all its departments or instrumentalities to become eligible to participate in TCRS in accordance with the above terms and conditions subject to the approval of the TCRS Board of Trustees. It is acknowledged and understood that pursuant to Tennessee Code Annotated, Section 8-35-111 the Political Subdivision shall not make employer contributions to any other retirement or deferred compensation plans on behalf of any employee who participates in TCRS pursuant to this Resolution wherein the total combined employer contributions to such plans exceed 3% of the employee's salary, unless the Local Government Hybrid Plan or the State Employee and Teacher Hybrid Plan is adopted by the Political Subdivision for such employee. If either the Local Government Hybrid Plan or the State Employee and Teacher Hybrid Plan is adopted by the Political Subdivision, the Political Subdivision may make employer contributions to the defined contribution plan component of that Plan and to any one or more additional tax deferred compensation or retirement plans on behalf of such employee provided that the total combined employer contributions to such plans on behalf of the employee does not exceed 7% of the employee's salary.

STATE OF TENNESSEE

COUNTY OF MACON

I, Angela Ray, clerk of the
CITY COUNCIL of RED BOILING SPRINGS

Tennessee, do hereby certify that this is a true and exact copy of the foregoing Resolution that was approved and adopted in accordance with applicable law at a meeting held on the 10th day of May, 2018, the original of which is on file in this office.

IN WITNESS WHEREOF, I have hereunto set my hand, and the seal of the CITY OF RED BOILING SPRINGS

Angela Ray
As Clerk of the Board, as aforesaid

Seal

Page is intended to be blank

STATISTICAL REPORTS

Page is intended to be blank

ANALYSIS OF MEMBERS ACTIVELY CONTRIBUTING

	3/31/2016	6/30/2016	9/30/2016	12/31/2016	3/31/2017	6/30/2017	9/30/2017	12/31/2017	3/31/2018
Group I Members:									
(State & Higher Ed.)	50,691	45,516	44,225	42,815	42,861	41,731	40,996	40,674	38,617
Highway Patrol	756	726	717	711	713	704	692	685	679
Wildlife Officers	191	190	191	188	187	186	183	187	183
Teachers	68,474	61,820	60,876	60,013	59,884	58,365	58,202	58,306	56,800
General Employees of Polisubs	81,199	73,655	73,734	73,821	74,574	73,897	74,966	76,301	73,732
Firemen & Policemen	7,446	7,040	7,108	7,233	7,306	7,350	7,476	7,617	7,480
General Assembly	111	103	103	98	97	96	94	92	87
County Officials	2	1	1	1	2	2	2	2	2
Board Members	435	392	386	395	389	382	378	382	370
County Judges	18	17	15	14	14	12	11	10	8
Attorney: ...	608	574	571	506	500	493	489	488	468
Total Group I	209,931	190,033	187,984	185,795	186,527	183,218	183,489	184,744	178,426
Group II & Prior Class:									
Wildlife Officers									
Highway Patrol	1								
Firemen & Policemen-Political Subdivisions	10	10	11	11	11	10	10	9	8
Total Group II & Prior Class	11	10	11	11	11	10	10	9	8
Group III and Prior Class:									
State Judges	1	1	1	1	1	1	1	1	1
County Judges	1	1	1	1	1	1	0	0	
Attorneys General	1	1	1	1	1	1	0	1	1
County Officials	2	2	2	2	2	2	2	2	2
Total Group III & Prior Class	5	5	5	5	5	5	3	4	4
Group IV									
State Judges	121	113	113	115	113	113	111	109	111
State & Teacher Hybrid Plan									
State	10,754	10,271	11,251	12,521	13,957	14,869	15,929	17,543	17,407
General Assembly	17	17	17	27	27	27	28	28	29
Teacher	12,229	11,142	14,560	15,291	15,965	15,681	19,099	20,751	19,931
Attorneys General, Judges	37	37	37	36	35	35	36	37	42
Political Subdivisions	453	474	673	711	971	1,244	1,620	1,996	2,052
Public Safety				178	220	222	222	296	306
Alcoa				43	43	43	43	42	40
Local Government Plans									
Alternate DB	35	25	30	34	36	36	40	45	48
Hybrid Plan W/O Cost Controls	207	173	194	217	244	267	292	320	371
Total Membership Contributing to TCRS									
Teachers Contributing to ORP	9,763	9,609	9,586	8,830	8,804	8,638	8,387	8,213	8,028
Grand Totals	243,563	222,025	224,644	225,323	227,535	224,408	229,309	234,137	405,241

**RETIRED PAYROLL
STATISTICS
March 31, 2018**

	<u>AMOUNT</u>	<u># OF RETIREES</u>
STATE EMPLOYEES	64,204,615.60	46,744
STATE PAID JUDGES	1,075,238.16	220
COUNTY PAID JUDGES	274,224.79	70
ATTORNEY GENERALS	956,753.55	244
COUNTY OFFICIALS	326,546.96	151
PUBLIC SERVICE COMMISSIONERS	7,463.38	4
POLITICAL SUBDIVISIONS	33,859,197.38	39,452
TEACHERS	105,354,476.21	49,967
LOCAL TEACHERS	3,114,892.05	1,627
GOVERNORS AND WIDOWS	27,727.00	4
AGED TEACHERS	355.52	3
OTHERS	<u>\$237,770.30</u>	<u>90</u>
TOTAL	\$209,439,260.90	138,576

RETIRED PAYROLL
January 1, 2018
through
March 31, 2018

	<u>AMOUNT</u>	<u># OF RETIREES</u>
STATE EMPLOYEES	192,372,488.41	46,744
STATE PAID JUDGES	3,215,943.38	220
COUNTY PAID JUDGES	839,870.46	70
ATTORNEY GENERALS	2,941,095.56	244
COUNTY OFFICIALS	991,622.00	151
PUBLIC SERVICE COMMISSIONERS	22,390.14	4
POLITICAL SUBDIVISIONS	101,561,050.37	39,452
TEACHERS	316,553,503.95	49,967
LOCAL TEACHERS	9,417,758.55	1,627
GOVERNORS AND WIDOWS	83,181.00	4
AGED TEACHERS	1,409.14	3
OTHERS	<u>\$686,498.22</u>	<u>90</u>
TOTAL	\$628,686,811.18	138,576

NOTE: NINETY-NINE PERCENT (99%) OF THE RETIREES ARE ON DIRECT DEPOSIT

NUMBER OF MEMBERS REFUNDED

<u>Month</u>	<u>2011-12</u>	<u>2012-13</u>	<u>2013-14</u>	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>	<u>2017-18</u>
July	496	475	516	613	512	417	451
August	466	471	782	820	403	425	458
September	447	394	457	586	522	458	343
October	383	375	378	483	364	379	468
November	364	319	314	244	359	321	313
December	257	241	276	338	326	344	373
January	348	338	402	322	386	308	324
February	312	335	310	238	351	380	404
March	262	253	284	331	355	354	332
April	346	311	424	338	347	405	
May	329	274	866	247	332	347	
June	339	336	674	383	336	352	
TOTAL	<u>4,349</u>	<u>4,122</u>	<u>5,683</u>	<u>4,943</u>	<u>4,593</u>	<u>4,490</u>	<u>3,466</u>

**REFUND EXPENDITURES
2017-2018 FISCAL YEAR**

MONTH	MEMBER'S CONTRIBUTIONS	414(H) CONTRIBUTIONS	MEMBER'S INTEREST	EMPLOYER CONTRIBUTIONS	DEATH PAYMENTS	TOTAL
July	35,548.25	3,211,415.45	1,145,920.84	0.00	526,717.66	\$4,919,602.20
August	12,799.99	3,064,728.29	980,946.29	0.00	494,134.94	\$4,552,609.51
September	123,840.91	2,095,841.18	699,097.15	93,460.04	387,434.47	\$3,399,673.75
October	151,552.51	2,831,483.76	970,052.78	31,545.10	258,476.55	\$4,243,110.70
November	70,380.55	1,708,517.99	705,071.03	47,464.65	256,267.83	\$2,787,702.05
December	32,525.31	2,684,424.68	996,978.75	0.00	646,164.35	\$4,360,093.09
January	31,288.58	2,260,340.28	844,015.16	0.00	342,033.93	\$3,477,677.95
February	59,605.93	2,675,499.44	977,108.80	12,831.63	496,607.34	\$4,221,653.14
March	72,551.35	2,425,406.20	1,073,060.20	2,133.38	521,750.83	\$4,094,901.96
April						
May						
June						
TOTAL	590,093.38	22,957,657.27	8,392,251.00	187,434.80	3,929,587.90	\$36,057,024.35

PRIOR SERVICE ACTIVITY
January 1, 2018 through March 31, 2018

Legacy State:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	-	-	\$ -
	Military	-	-	-
	Redeposit	6	31	\$ 86,071
	Totals	6	31	\$ 86,071

Legacy Teachers:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	9	10	\$ 41,515
	Military	-	-	-
	Redeposit	16	89	\$ 533,765
	Totals	25	99	\$ 575,280

Legacy Higher Education:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	13	60	\$ 834,357
	Military	-	-	-
	Redeposit	2	6	34,949
	Totals	15	66	\$ 869,306

Legacy Political Subdivisions:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	43	23	\$ 18,737
	Military	2	1	\$ 2,003
	Redeposit	7	26	\$ 111,135
	Totals	52	51	\$ 131,875

Hybrid Higher Education:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	2	1	\$ 1,010
	Military	-	-	\$ -
	Redeposit	0	0	\$ -
	Totals	2	1	\$ 1,010

Hybrid Teachers:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	1	0	\$ -
	Military	-	-	\$ -
	Redeposit	0	0	\$ -
	Totals	1	0	\$ -

Hybrid Political Subdivisions:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	2	5	\$ -
	Military	-	-	\$ -
	Redeposit	0	0	\$ -
	Totals	2	5	\$ -

Hybrid State:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	0	0	\$ -
	Military	1	4	\$ -
	Redeposit	0	0	\$ -
	Totals	1	4	\$ -

Grand Totals:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	70	99	\$ 895,619
	Military	3	5	2,003
	Redeposit	31	152	765,920
	Totals	104	257	\$ 1,663,542

Page is intended to be blank

DISABILITY RETIREMENT REPORT

Page is intended to be blank

Disability Statistical Report

Third Quarter 17-18

Disability Applications Received	January	21
	February	20
	March	<u>29</u>
	TOTAL	70
Initial Claims Approved	January	19
	February	15
	March	<u>18</u>
	TOTAL	52
Initial Claims Disapproved	January	10
	February	03
	March	<u>08</u>
	TOTAL	21
Initial Claims Approved after Reconsideration		09
Initial Claims Disapproved after Reconsideration		03
Re-Evaluation Claims Approved		25
Re-Evaluation claims Disapproved		00

Page is intended to be blank

**APPROVED FOR DISABILITY
THIRD QUARTER
2017-2018**

TYPE	RE-E	Re-C	Age	EMPLOYER	POSITION	SVC	AFC	OPT	MO. BEN.	DISABILITY SUMMARY
ORD.	NO	NO	58	POL SUB	FLOOR TECH	11	\$25,956	B	\$382	SPINAL STENOSIS/LUMBAR RADICULOPATHY/ CHRONIC FOOT PAIN/ CHRONIC NECK PAIN
SS-ORD	NO	NO	54	POL SUB	DETENTION OFFICER	23	\$45,906	D	\$1,144	TREMORS
ORD.	YES	NO	55	POL SUB	LIBRARY ASST	10	\$17,264	A	\$316	POST-LAMNECTOMY SYNDROME, SEVERE CHRONIC LBP, LE RADICALITIS
ORD.	NO	NO	52	STATE	CASE MANAGER II	20	\$50,956	B	\$1,128	STAGE 4 RENAL FAILURE, INSULIN DEPENDENT DIABETIC
ORD.	NO	NO	55	STATE	LPN II	9	\$31,998	A	\$548	SPINDYLOLISTHESIS/LUMBAR REGION, HYPOTHYROIDISM, UNCONTROLLED TYPE 2 DIABETES
ORD.	YES	YES	44	STATE	STATE TROOPER	17	\$77,605	D	\$1,695	PTSD, DEPRESSION, SOCIALLY WITHDRAWN, AND MULTIPLE MEDICAL INJURIES
ORD.	YES	NO	40	STATE	CASE MANAGER II	12	\$39,608	B	\$828	RA/ FIBROMYALGIA/ FATTY LIVER/ DEPRESSION/ SUICIDAL ATTEMPT
SS-ORD	NO	NO	57	STATE	PSYCH SOC. WKR SUP.	8	\$41,188	A	\$527	SEVERE PTSD/ INSOMNIA/ OBESITY/ FATTY LIVER
ORD.	NO	NO	58	POL SUB	CUSTODIAN	5	\$22,799	B	\$234	TRIPLE BYPASS SURGERY, COPD, PULMONARY HTN.
ORD.	NO	NO	59	POL SUB	FOOD SERVICES	19	\$15,982	D	\$272	METASTATIC COLON CANCER
ORD.	YES	NO	51	STATE	FOOD SERVICE WORKER	9	\$17,605	A	\$379	DDD, HTN, ASTHMA
ORD.	YES	NO	45	TEACHER	TEACHER	20	\$69,356	A	\$1,686	DEVIC'S SYNDROME
SS- INACT.	NO	NO	54	POL SUB	ADMINISTRATOR OF ELECTIONS	19	\$66,723	B	\$1,025	ANKYLOSING SPONDYLITIS, RHEUMATOID ARTHRITIS, SCIATICA, AND ANEMIA
ORD.	NO	YES	56	POL SUB	PRE- K EDUCATIONAL ASST.	15	\$15,178	B	\$308	MULTIPLE MYELOMA

**APPROVED FOR DISABILITY
THIRD QUARTER
2017-2018**

ORD.	YES	YES	47	STATE	OPERATIONS TECH	10	\$27,629	E	\$616	ANXIETY/ DEPRESSION/ MIGRAINES/ DDD/
SS-ORD	NO	NO	51	STATE	DIRECTOR'S ASSISTANT III	13	\$33,271	A	\$309	ESRD
ORD.	YES	YES	51	STATE	ACCOUNT CLERK	22	\$38,338	A	\$1,007	VERTIGO/ CHRONIC FATIGUE/ DIZZINESS/ MIGRAINES
SS-ORD	NO	NO	53	TEACHER	TEACHER	6	\$59,718	A	\$917	SEVERE JUVENILE GLAUCOMA/ LOW VISION
ORD.	YES	NO	50	TEACHER	TEACHER	17	\$53,494	A	\$1,263	EPILEPSY, ANXIETY, DEPRESSION, AND TREMORS
ORD.	NO	NO	59	POL SUB	CAFETERIA MANAGER	17	\$25,327	D	\$479	COPD, PULONARY HYERTENSION
ORD.	NO	NO	46	STATE	ELIGIBILITY ASSISTANT	14	\$25,741	A	\$608	FIBROMYALGIA/ INFLAMMATORY ARTHRITIS/ SJORGEN'S SYNDROME/ CARPAL TUNNEL SYNDROME
ORD.	NO	NO	49	TEACHER	TEACHER	23	\$51,236	B	N/A	MALIGNANT NEOPLASM OF BREAST
ORD.	YES	NO	43	STATE	COMPUTER OPERATOR 2	6	\$24,822	A	\$586	NON-HODGKINS LYMPHOMA
SS-ORD	NO	NO	56	POL SUB	TRANSIT OPERATOR	8	\$20,526	A	\$242	RT. DISTAL RADIUS FRACTURE/ CARPAL TUNNEL SYNDROME
ORD.	NO	YES	58	POL SUB	WATER PLANT OPERATOR	10	\$33,915	B	\$410	COPD/ NEUROPATHY/ MORBID OBESITY/ BACK SURGERY COMPLICATIONS
ORD.	YES	NO	47	POL SUB	ENFORCEMENT OFFICER	17	\$31,971	A	\$755	CERVICAL DISC DISEASE/ HTN
ORD.	NO	NO	55	POL SUB	HEAD MECHANIC	14	\$28,399	B	\$543	CORONARY ARTERY DISEASE, HYPERTENSION
ORD.	NO	NO	52	POL SUB	POLICE OFFICER	23	\$48,024	E	\$1,297	CVA/ EXPRESSIVE APHASIA/

**APPROVED FOR DISABILITY
THIRD QUARTER
2017-2018**

ORD.	YES	NO	55	TEACHER	TEACHER	17	\$51,996	A	\$1,228	BILATERAL KNEE REPLACEMENT/ CERVICAL SPINE PAIN/ POSTLAMINECTOMY SYNDROME
ORD.	YES	NO	49	STATE	PLACEMENT SPECIALIST	9	\$39,982	A	\$944	CHRONIC PAIN RELATED TO LARGE NEUROFIBROMAS.
ORD.	YES	NO	44	STATE	PROBATION OFFICER	18	\$37,580	B	\$761	MULTIPLE SCLEROSIS/ HYPERTENSION/ CARPEN TUNNEL/ HYPERTENSION
ORD.	NO	NO	59	POL SUB	MEO I	19	\$26,133	A	\$627	PROSTATE CANCER
ORD.	YES	YES	47	STATE	RN	22	\$66,400	A	\$1,758	CVA, HEMIPARETIC/ MORBID OBESITY/ TYPE 2 DIABETES
SS-ORD	YES	YES	41	STATE	SERGANT	14	\$73,596	D	\$1,605	TRAUMATIC BRAIN INJURY/ C-4 SPINE FUSION/ NECK PAIN
ORD.	NO	NO	38	STATE	DTS2	16	\$31,240	B	\$703	BIPOLAR II DISORDER R/O BIPOLAR I MIXED EPISODES, DEPRESSED
ORD.	YES	NO	49	STATE	ACCOUNTANT	24	\$47,201	B	\$1,267	CVA/ HYPERTENSIVE RENAL DISEASE/ COPD/ CHF
ORD.	NO	NO	54	STATE	MEDICAL LAB TECH	5	\$43,188	A	\$582	PRIMARY OSTEOARTHRITIS OF LEFT KNEE
ORD.	YES	NO	48	POL SUB	EXECUTIVE ASSISTANT	11	\$36,277	A	\$857	DX WITH RA, DJD INVOLVING C SPINE AND LS JOINT AND CHRONIC PAIN.
INACT.	NO	NO	49	STATE	CORRECTIONAL OFFICER	7	\$19,563	N/A	N/A	CAD/ CERVICAL AND LUMBAR SPINAL STENOSIS/ ABNORMAL GAIT
ORD.	NO	NO	55	STATE	FORK LIFT OPERATOR	5	\$19,563	N/A	N/A	CERVICAL SPONDYLOSIS/ CERVICAL DISCK DEGENERATION/ COPD
ORD.	NO	NO	58	POL SUB	CUSTODIAN	27	\$29,859	B	\$849	DEGENERATIVE DISC DISEASE, SPINAL CANAL STENOSIS, NERVE ROOT COMPRESSION
ORD.	NO	NO	54	POL SUB	CUSTODIAN	10	\$19,712	A	\$376	MEMORY LOSS - FRONTAL TEMPORAL LOBE DEMENTIA

**APPROVED FOR DISABILITY
THIRD QUARTER
2017-2018**

ORD.	YES	NO	52	STATE	CORRECTIONAL OFFICER	18	\$36,447	A	\$861	PTSD, SLEEP APNEA, DEPRESSION AND DEGENERATIVE ARTHRITIS OF THE SPINE
ORD.	YES	YES	51	POL SUB	CAFETERIA MANAGER	13	\$20,312	A	\$489	ARTHRITIS/ FIBROMYALGIA DDD/ DIABETES
ORD.	YES	NO	53	STATE	ASA 2	10	\$32,124	A	\$640	MALIGNANT NEOPLASM OF THE BRAIN
ORD.	NO	YES	54	POL SUB	DEPUTY SHERIFF	12	\$27,709	A	\$594	OSTEOARTHRITIS/ PAIN IN RT. HIP/ PAIN IN RT. KNEE
ORD.	YES	YES	49	STATE	EQUIPMENT OPERATOR	5	\$47,201	B	\$1,267	DDD/BACK PAIN/ DEPRESSION/ FATIGUE/ CAD

**DISAPPROVED FOR DISABILITY
THIRD QUARTER
2017-2018**

Type	Re-C	Age	Employer	Position	SVC	Disability Summary	Reason Denied
ORD.	NO	49	POL SUB	DEPUTY TRANSPORT OFFICER	17	RT CUFF TEAR AND CAPSULITIS OF RIGHT SHOULDER.	LIMITED TO SEDENTARY WORK.
ORD.	YES	54	STATE	SERGEANT	23	BREAST CANCER, THORACIC AORTIC ANEURYSM	NO COMPLICATIONS, NO RECURRENCE
ORD.	NO	44	POL SUB	EQUIPMENT OPERATOR	9	DEPRESSION WITH ANXIETY, HTN, SEVERE MAJOR DEPRESSION	LIMITED TO SEDENTARY WORK
ORD.	NO	46	TEACHER	BAND DIRECTOR	20	SPINAL STENOSIS/ MIGRAINES/ HYPERTENSION	CAPABLE OF SEDENTARY WORK
ORD.	YES	53	POL SUB	POLICE OFFICER	16	ANXIETY DISORDER W/PANIC ATTACKS	CAPABLE OF LIGHT TO SEDENTARY WORK
ACC.	NO	27	POL SUB	POLICE OFFICER	2	RT. KNEE PAIN/ RECURRENT LABRAL TEAR OF LEFT SHOULDER	CAPABLE OF LIGHT WORK
ORD.	YES	54	STATE	OR NURSING ATTENDANT	25	CAD/CHRONIC ANGINA, EXTENSIVE CAD WITH MULTIPLE STENTS	LIMITED TO SEDENTARY WORK
ORD.	YES	49	POL SUB	MAINTENANCE	14	GAMMAGLOBULINEMIA, HTN AND COPD	SEDENTARY WORK CAPABLE
ORD.	NO	55	POL SUB	SUPPORT STAFF/ASSIST.	17	DJD OF CERVICAL AND LUMBAR SPINE WITH RADICULOPATHY.	MEMBER CAPABLE OF MEDIUM TO LIGHT SEDENTARY WORK.
INACT.	YES	50	STATE	RN II	17	BIPOLAR DISORDER	STABLE MILD DEPRESSION/ LIMITED TO LIGHT WORK
ORD.	NO	40	STATE	ELIGIBILITY COUNSELOR	13	DDD C SPINE, HYPERSOMNOLENCE CHRONIC PAIN, HTN, PSYCHIATRIC ISSUES.	PT CAN DO SEDENTARY WORK
INACT.	NO	54	POL SUB	DEPUTY	6	CHRONIC LOW BACK PAIN, LUMBAR POSTLAMINECTOMY SYNDROME, LUMBAR SPONDYLOSIS	PT LIMITED TO SEDENTARY WORK

**DISAPPROVED FOR DISABILITY
THIRD QUARTER
2017-2018**

Type	Re-C	Age	Employer	Position	SVC	Disability Summary	Reason Denied
ORD.	NO	53	TEACHER	LIBRARIAN	13	DIABETES/ NEUROPATHY/ DEPRESSION/ FIBROMYLAGIA	CAPABLE OF LIGHT WORK
ORD.	NO	38	STATE	DETENTION OFFICER	12	CROHN'S COLITIS, GERD, INFLAMMATORY POLYARTHROPATHY	SEDENTARY WORK IS POSSIBLE
ORD.	YES	56	POL SUB	RESOURCE OFFICER	9	LOWER BACK PAIN	LIMITED TO LIGHT SEDENTARY WORK
ORD.	YES	41	STATE	SERGANT	14	TRAUMATIC BRAIN INJURY/ C4-SPINE FUSION/ NECK PAIN	LIMITED TO LIGHT TO SEDENTARY WORK
ACC.	NO	52	STATE	OP TECH 2	4	LUMBAR FUSION SURGERY/ LOW BACK PAIN/	LIMITED TO LIGHT TO SEDENTARY WORK
ORD.	NO	58	STATE	EQUIPMENT MECHANIC	23	CERVICAL SPONDYLOSIS WITH KYPHOTIC DEFORMATION (L) KNEE DJD AND LOWER BACK PAIN.	MEMBER CAPABLE OF LIGHT TO MEDIUM SEDENTARY WORK.
ORD.	NO	49	POL SUB	MAINTENANCE	14	DX GAMMAGLOBULINEMIA, HTN, COPD	LIMITED TO SEDENTARY WORK
ORD.	NO	55	POL SUB	WITNESS COORDINATOR	17	CHRONIC VERTIGO/ ARACHNOID CYST/ BPPV/	CAPABLE OF LIGHT TO SEDENTARY WORK
ORD.	NO	59	POL SUB	BUS AIDE	8	OSTEOARTHIRITIS AND RHEUMATOID ARTHRITIS	LIMITED TO SEDENTARY WORK

FINANCIAL STATEMENTS

Page is intended to be blank

TENNESSEE RETIREE GROUP TRUST
STATEMENT OF FIDUCIARY NET POSITION
March 31, 2018

ASSETS

Cash and cash equivalents	\$	197,781,968.30
Cash collateral for securities on loan		5,128,372,764.00

Receivables

Investment income receivable	198,471,816.52
Derivative instruments receivable	162,843,337.19
Investments sold	234,568,193.72
Total receivables	595,883,347.43

Investments at fair value

Government securities	9,410,143,563.24
Corporate securities	6,439,144,753.70
Corporate stocks	25,034,322,597.82
Strategic lending	2,136,456,982.98
Private equities	2,413,305,276.45
Real estate	3,834,794,080.98
Total investments	49,268,167,255.17

TOTAL ASSETS	55,190,205,334.90
---------------------	--------------------------

LIABILITIES AND NET POSITION

LIABILITIES

Investments purchased	404,430,479.27
Other investments payables	7,115,331.72
Derivative instrument payable	162,867,079.46
Cash collateral for securities on loan	5,128,372,764.00
TOTAL LIABILITIES	5,702,785,654.45

NET POSITION HELD IN TRUST FOR

POOL PARTICIPANTS	\$ 49,487,419,680.45
--------------------------	-----------------------------

See Accompanying Notes to the Financial Statements

UNAUDITED

TENNESSEE RETIREE GROUP TRUST
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE PERIOD ENDED MARCH 31, 2018

OPERATIONS

INVESTMENT INCOME

Net appreciation in fair value of investments	\$ 2,448,378,403.41
Income on securities	879,559,071.07
Total investment income	<u>3,327,937,474.48</u>
Less: investment expense	63,135,429.39
Net income (loss) from investing activities	<u>3,264,802,045.09</u>
Securities lending activities	
Securities lending income	49,254,680.99
Less: securities lending expense	<u>21,530,091.68</u>
Net income from securities lending activities	<u>27,724,589.31</u>
NET INVESTMENT INCOME	<u>3,292,526,634.40</u>

CAPITAL SHARE TRANSACTIONS

Net shares sold	1,117,271,994.47
Net shares redeemed	<u>1,928,351,757.64</u>
TOTAL INCREASE FROM CAPITAL SHARE TRANSACTIONS	<u>(811,079,763.17)</u>

NET INCREASE IN FIDUCIARY NET POSITION	<u>2,481,446,871.23</u>
-----------------------------------------------	-------------------------

NET POSITION RESTRICTED FOR PARTICIPANTS

NET POSITION, BEGINNING OF PERIOD	<u>47,005,972,809.22</u>
NET POSITION, END OF PERIOD	<u><u>\$ 49,487,419,680.45</u></u>

See Accompanying Notes to the Financial Statements

UNAUDITED

**Tennessee Retiree Group Trust
Notes to Financial Statements
March 31, 2018**

A: Summary of Significant Accounting Policies

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 Comprehensive Annual 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 Comprehensive Annual Financial Report*.

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.

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.

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 March 31, 2018 represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants

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

UNAUDITED

TRGT with other assets in the custody of the Treasurer, solely for investment purposes. The 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 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 and Insurance, 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 market 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 market 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 asset allocation policy as of June 30, 2017:

<u>Authorized Asset Class</u>	<u>Target Allocation</u>
U.S. equity	31%
Canadian equity	2%
Developed market international equity	13%

UNAUDITED

Emerging market international equity	4%
Private equity	7%
U.S. fixed income	25%
Strategic lending	7%
Real estate	10%
Short-term securities	1%
Total	<hr/> 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 market 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 market value equal to at least one hundred two percent (102%) of the market 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 market 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.

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. At March 31, 2018, the TRGT had market value of securities on loan totaling \$5,072,160,128 and received \$5,128,372,764 in collateral.

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 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 <http://www.tn.gov/treasury/>.

UNAUDITED

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.

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.

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.

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 March 31, 2018 the TRGT had uninsured and uncollateralized cash deposits of foreign currency held by our master custodian, State Street Bank, in State Street's name. These deposits were used for investments pending settlement. These deposits were used for investments pending settlement.

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.

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. Any unrealized gain on foreign currency forward contracts has been reflected in the financial statements as an investment. The notional amount of the foreign currency forward contracts has been reflected in the financial statements as a receivable and a payable. Any unrealized loss on foreign currency forward contracts has been included in the payable established for the contracts.

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

UNAUDITED

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.

Options - The TRGT is authorized to enter into option contracts and any income earned on option contracts has been included in investment income in the financial statements.

The fair values of foreign currency forward contracts are estimated based on the present value of their estimated future cash flows. Futures, Options 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 foreign currency forward contracts is managed by limiting the term of the forward contracts and restricting the trading to high quality banks. 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. 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 25 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, 40 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 75 basis points during the first 30 consecutive days, plus an additional 50 basis points for each consecutive 30 days thereafter, up to a maximum rate allowed by state law.

Alternative Investments: The TRGT had unfunded commitments in private equity, strategic lending, and real estate commitments at year end.

UNAUDITED

Page is intended to be blank

**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
STATEMENT OF FIDUCIARY NET POSITION
AS OF MARCH 31, 2018**

ASSETS

Cash and Cash Equivalents	\$28,529,210.41
Cash collateral for securities on loan	\$5,114,550,139.48

Receivables

Member receivable	1,941,327.51
Employer receivable	1,503,193.97

Total receivables	3,444,521.48
-------------------	--------------

Investments, at fair value

Tennessee Retiree Group Trust	49,482,846,476.60
Capital Assets (net)	22,463,176.11

TOTAL ASSETS	54,651,833,524.08
--------------	-------------------

LIABILITIES

Death benefits and refunds payable	177,099.75
Federal withholding payable	(13,474.47)
Retiree insurance premium payable	9,120,057.30
Other	0.00
Cash collateral for securities on loan	5,114,550,139.48

TOTAL LIABILITIES	5,123,833,822.06
-------------------	------------------

NET POSITION RESTRICTED FOR PENSIONS	\$49,527,999,702.02
--------------------------------------	---------------------

See Accompanying Notes to the Financial Statements

UNAUDITED

**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE PERIOD ENDED MARCH 31, 2018**

ADDITIONS

Contributions

Member contributions	\$218,987,785.32
Employer contributions	732,294,133.87
Other contributions	2,150,802.18
Total contributions	<u>953,432,721.37</u>

Investment income

Total investment income	3,514,581,538.04
Less: Investment expense	(53,994,513.36)
Net income (loss) from investing activities	<u>3,460,587,024.68</u>

Securities lending activities

Securities lending income	51,930,822.90
Less: securities lending expense	(26,789,807.97)
Net income from securities lending activities	<u>25,141,014.93</u>

Net investment income

TOTAL ADDITIONS	<u>4,439,160,760.98</u>
------------------------	-------------------------

DEDUCTIONS

Annuity benefits	1,884,249,622.51
Death benefits	3,381,404.31
Refunds	28,962,184.43
Administrative expenses	8,819,485.11

TOTAL DEDUCTIONS	<u>1,925,412,696.36</u>
-------------------------	-------------------------

NET INCREASE	2,513,748,064.62
---------------------	------------------

**NET POSITION RESTRICTED FOR PENSIONS
BEGINNING OF YEAR**

\$47,014,251,637.40

END OF PERIOD

\$49,527,999,702.02

See Accompanying Notes to the Financial Statements

UNAUDITED

**Tennessee Consolidated Retirement System
Notes to Financial Statements
March 31, 2018**

The Tennessee Consolidated Retirement System (TCRS) is a public employee retirement system comprised of defined benefit pension plans covering Tennessee state employees, employees of the state's higher education systems, teachers, and employees of political subdivisions in Tennessee. The TCRS was established in 1972 by a statutory enactment of the Tennessee General Assembly. The provisions of the TCRS are codified in *Tennessee Code Annotated* Title 8, Chapters 34-37. In accordance with Tennessee Code Annotated Title 8, Chapter 34, Section 202, all funds invested, securities, cash, and other property of the TCRS are held in trust and can be expended only for the purposes of the trust. Although the assets for all pension plans within the TCRS are commingled for investment purposes, the assets of each separate plan may legally be used only for the payment of benefits to the members of that plan and for its administration, in accordance with the terms of the plan.

A: Summary of Significant Accounting Policies

Reporting entity: The TCRS is included in the State of Tennessee financial reporting entity. Because of the state's fiduciary responsibility, the TCRS has been included as a pension trust fund in the *Tennessee Comprehensive Annual Financial Report*.

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.

Plan member and employer contributions are recognized in the period of time for which they are due, in accordance with legal provisions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

Cash and cash equivalents: Cash and cash equivalents includes cash, short-term investments with a maturity date within three months of the acquisition date, cash management pools, and cash invested in a short-term, open-end mutual fund under the contractual arrangement for master custody services. Cash received by the TCRS, that cannot be invested immediately in securities or is needed for operations, is invested in the State Pooled Investment Fund sponsored by the State of Tennessee and administered by the State Treasurer.

Method used to value investments: Assets of the TCRS are invested in the Tennessee Retiree Group Trust (TRGT). As of March 31, 2018, the TCRS owns 99.74 percent of the investments in the TRGT. 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 March 31, 2018 represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants.

UNAUDITED

Capital assets: Capital assets consist of internally generated computer software, reported at historical cost less any applicable amortization. Capital assets are defined by the state as assets with an initial individual cost of \$5,000 or more and an estimated useful life in excess of two years. The computer software was valued at \$23.4 million at year end and is being amortized using the straight line method over the ten year estimated life of the system. The amortization expense for the current year was \$8.3 million.

B: Plan Descriptions

Plan administration: The Tennessee Treasury Department, an agency in the legislative branch of state government, administers the plans of the TCRS.

At March 31, 2018, there were three defined benefit pension plans within the TCRS. The Public Employee Retirement Plan is an agent, multiple-employer defined benefit pension plan for state government employees and for political subdivisions electing to participate in the TCRS. The Teacher Legacy Pension Plan is a cost-sharing, multiple-employer defined benefit pension plan for teachers of local education agencies (LEAs). The Teacher Legacy Pension Plan closed to new membership on June 30, 2014, but will continue providing benefits to existing members and retirees. Beginning July 1, 2014, the Teacher Retirement Plan became effective for teachers employed by LEAs after June 30, 2014. The Teacher Retirement Plan is a separate cost sharing, multiple employer defined benefit pension plan.

The general administration and responsibility for proper operation of the TCRS plans are vested in a 20 member Board of Trustees, consisting of 18 voting members and two non-voting members. The Board has nine ex-officio members, two of whom are non-voting. The seven voting ex-officio members are the State Treasurer, Secretary of State, Comptroller of the Treasury, Commissioner of Finance and Administration, Commissioner of Human Resources, Director of the TCRS, and the Administrative Director of the Courts. The two non-voting ex-officio members are the chair and vice-chair of the Legislative Council on Pensions and Insurance.

Three active teacher members, one from each grand division of the state, and a retired teacher member are selected for three year terms by the Speaker of the House of Representatives and the Speaker of the Senate. Two active state employee members, who are from departments other than those represented by ex-officio members, are elected by state employees for three year terms. A board member is appointed for a two year term by each of the following organizations: Tennessee County Services, Tennessee Municipal League, and the Tennessee County Officials Association. Two members, a public safety employee and a retired state employee, are appointed by the Governor for two year terms. All members must be vested members of the TCRS, except for ex-officio members.

Benefits provided: The TCRS provides retirement, disability, and death benefits. The benefits of the TCRS are established by state law (Tennessee Code Annotated, Title 8, Chapters 34-37). In general, the benefits may be amended prospectively by the General Assembly for employees becoming members of the TCRS after June 30, 2014. Amendments of benefits for employees becoming members before July 1, 2014 can be restricted by precedent established by the Tennessee Supreme Court.

Teacher Legacy Pension Plan

Members of the Teacher Legacy Pension Plan are eligible to retire at age 60 with 5 years of service credit or after 30 years of service credit regardless of age. Plan members are entitled to receive unreduced service retirement benefits, which are determined by a formula using the member's highest five consecutive year average compensation and the member's years of service credit. Service related disability benefits are provided regardless of length of service. Five years of service is required for non-service related disability eligibility. The service related and non-service related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. Member and beneficiary annuitants are entitled to automatic cost of living adjustments (COLAs) after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the consumer price index (CPI) during the prior calendar year, capped at 3 percent,

and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent.

Teacher Retirement Plan

Members of the Teacher Retirement Plan are eligible to retire at age 65 with 5 years of service credit or pursuant to the rule of 90 where age and years of service total 90. Plan members are entitled to receive unreduced service retirement benefits, which are determined by a formula using the member's highest five consecutive year average compensation and the member's years of service credit. Service related disability benefits are provided regardless of length of service. Five years of service is required for non-service related disability eligibility. The service related and non-service related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. Member and beneficiary annuitants are entitled to automatic cost of living adjustments (COLAs) after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the consumer price index (CPI) during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. The Teacher Retirement Plan includes provisions to control employer contributions and unfunded liabilities. As such, plan provisions are automatically changed when employer contributions and unfunded liabilities exceed statutory limits.

Public Employee Retirement Plan

For state employees, there are two major tiers of benefits and eligibility requirements. State employees becoming members before July 1, 2014 are eligible to retire at age 60 with 5 years of service credit or after 30 years of service credit regardless of age. State employees becoming members after June 30, 2014 are eligible to retire at age 65 with five years of service or pursuant to the rule of 90 where age and years of service total 90. Plan members are entitled to receive unreduced service retirement benefits, which are determined by a formula using the member's highest five consecutive year average compensation and the member's years of service credit. Service related disability benefits are provided regardless of length of service. Five years of service is required for non-service related disability eligibility. The service related and non-service related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. Member and beneficiary annuitants are entitled to automatic COLAs after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the CPI during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. There are additional classes of employees that include state judges, elected members of the general assembly, and public safety officers which have different benefit structures and eligibility requirements. These classifications represent an immaterial percentage of the state employee membership.

For political subdivision employees, there are various tiers of benefits and eligibility requirements. Each political subdivision adopts the benefit structure that the entity provides to its employees. Unreduced service retirement benefits are determined using a multiplier of the member's highest 5 consecutive year average compensation multiplied by the member's years of service credit. Plan members are eligible for service related disability benefits regardless of length of service. Five years of service is required for non-service related disability eligibility. The service related and non-service related disability benefits are determined in the same manner as a service retirement benefit but are reduced 10 percent and include projected service credits. A variety of death benefits are available under various eligibility criteria. If adopted as a benefit provision by the political subdivision, member and beneficiary annuitants are entitled to automatic COLAs after retirement. A COLA is granted each July for annuitants retired prior to the 2nd of July of the previous year. The COLA is based on the change in the CPI during the prior calendar year, capped at 3 percent, and applied to the current benefit. No COLA is granted if the change in the CPI is less than one-half percent. A one percent COLA is granted if the CPI change is between one-half percent and one percent. There are additional classes of employees, local judges, elected officials, and public safety officers, which may have different benefit structures and eligibility requirements. These classifications represent an immaterial percentage of the political subdivisions' membership.

Contributions: Pursuant to *Tennessee Code Annotated* Title 8, Chapter 37, the Board of Trustees adopted an actuarially determined contribution (ADC) for each participating employer, as recommended by an independent actuary following an actuarial valuation.

For the Teacher Legacy Pension Plan, LEAs are required by statute to contribute the ADC. The ADC is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, the unfunded accrued liability, and the cost of administration. Teachers are required by statute to contribute 5 percent of salary. For the year ended June 30, 2017, the required ADC for LEAs was 9.04 percent of covered-employee payroll.

For the Teacher Retirement Plan, LEAs are required by statute to contribute greater of the ADC or 4 percent. The ADC is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, the unfunded accrued liability, and the cost of administration. Teachers are required by statute to contribute 5 percent of salary. For the year ended June 30, 2017, the required ADC for LEAs was 1.19 percent of covered-employee payroll while actual contributions were 4 percent of covered-employee payroll.

For the Public Employee Retirement Plan, each governmental entity is required by statute to contribute the ADC except that the contribution rate for state employees hired after June 30, 2014 is the greater of the ADC or 4 percent. The ADC is the estimated amount necessary to finance the costs of benefits earned by plan members during the plan year, the unfunded accrued liability, and the cost of administration. For the year ended June 30, 2017, the required ADC varied for each participating employer, with approximately ninety-six percent of all employer rates less than twenty (20) percent and contributions from these same employers accounting for over ninety percent of the contributions for this plan. By statute, state employees hired before July 1, 2014 are noncontributory while employees hired after June 30, 2014 contribute 5 percent of salary. As adopted by the governmental entity, political subdivision employees may be noncontributory, contribute 2.5 percent of salary, or contribute 5 percent of salary.

Reserves: The statute governing the Teacher Retirement Plan and certain employers in the Public Employee Retirement Plan provide for a minimum employer contribution rate of 4 percent. The statute further provides that the amount of the employer contributions in excess of the actuarially determined contribution rate is deposited into a stabilization reserve for each plan. The statute may be amended by the Tennessee General Assembly. Assets in the stabilization reserve are commingled for investment purposes and receive a pro rata share of investment earnings. The amount in the stabilization reserve is not considered in calculating the actuarially determined employer contribution rate for each plan. The statute provides that the assets in the stabilization reserve will be utilized should the actuarially determined contribution rate exceed 4 percent. In such case, the required employer contribution in excess of 4 percent will be transferred from the stabilization reserve to the account of the Teachers Retirement Plan or certain Public Employee Retirement Plan employers. By statute, the Board of Trustees may adopt a policy to suspend the deposits into the stabilization reserve in any given year when the stabilization reserve reaches a certain level that is determined by the Board. If deposits are suspended, then the employer contribution will be the actuarially determined contribution rate for that year rather than the higher 4 percent. The Board has not adopted a policy at this time. At March 31, 2018, there was \$27,700,444 in the stabilization reserve on behalf of the Teachers Retirement Plan and \$32,909,960 in the various stabilization reserves on behalf of the Public Employee Retirement Plan.

C: 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 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. As of March 31, 2018, the TCRS owns 99.74 percent of the investments in the TRGT.

UNAUDITED

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, an amount not to exceed twenty-five percent (25 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, provided that such percentage may be increased by the board with the subsequent approval of the council on pensions and insurance.
- 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 real estate shall not exceed ten percent (10 percent) of the market value of total assets.
- g. The total sum invested in private equities shall not exceed ten percent (10 percent) of the market 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 market value of the TRGT's total assets. Gross exposure to approved fixed income financial instruments will be limited to ten percent (10 percent) of the market value of the Trust's total assets for risk mitigating positions and 10 percent (10 percent) for risk positions. 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 asset allocation policy as of December 31, 2017:

<u>Authorized Asset Class</u>	<u>Target Allocation</u>
U.S. equity	31%
Canadian equity	2%
Developed market international equity	13%
Emerging market international equity	4%
Private equity	7%
U.S. fixed income	25%
Strategic lending	7%
Real estate	10%

UNAUDITED

Short-term securities	1%
Total	100%

Securities Lending: The TRGT is authorized to invest in securities lending investments 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 market 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 market value equal to at least one hundred two percent (102%) of the market 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 market 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. At March 31, 2018, the TRGT had market value of securities on loan totaling \$5,128,372,764 and received \$5,114,550,139.48 in collateral.

The TCRS 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 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 <http://www.tn.gov/treasury/>.

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.

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

UNAUDITED

payments on underlying mortgages and could therefore be more sensitive to prepayments by mortgagees as a result of a decline in interest rates.

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.

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 March 31, 2018, the TRGT had uninsured and uncollateralized cash deposits of foreign currency held by our master custodian, State Street Bank, in State Street's name. These deposits were used for investments pending settlement.

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 March 31, 2018, the TRGT was under contract for fixed income and equity index futures and the resulting payable 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. The TRGT can sell up to 80% of its foreign currency exposure into US dollars. Foreign currency forward contracts expose the TCRS to foreign currency risk as they are denominated in foreign currency.

Any unrealized gain on foreign currency forward contracts has been reflected in the financial statements as an investment. The notional amount of the foreign currency forward contracts has been reflected in the financial statements as a receivable and a payable. Any unrealized loss on foreign currency forward contracts has been included in the payable established for the contracts.

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.

Options - The TRGT is authorized to enter into option contracts and any income earned on option contracts has been included in investment income in the financial statements.

The fair values of foreign currency forward contracts are estimated based on the present value of their estimated future cash flows. Futures, Options and TBA mortgage backed securities are exchange traded and their price is based on quoted market prices. 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 foreign currency forward contracts is managed by limiting the term of the forward contracts and restricting the

trading to high quality banks. 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. 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 25 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, 40 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 75 basis points during the first 30 consecutive days, plus an additional 50 basis points for each consecutive 30 days thereafter, up to a maximum rate allowed by state law.

Alternative Investments: The TRGT had unfunded commitments in private equity, strategic lending, and real estate commitments at March 31, 2018.