

TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
BOARD OF TRUSTEES MEETING
MARCH 29, 2019

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**TENNESSEE CONSOLIDATED RETIREMENT SYSTEM
BOARD OF TRUSTEES MEETING
MARCH 29, 2019**

TABLE OF CONTENTS

Minutes of the Board of Trustees	3
Committee Minutes	
Administrative Committee	9
Audit Committee	11
Investment Committee	15
TCRS Board of Trustee Appointment	21
Audit Committee Appointment	25
TCRS Audit Committee Charter	31
Retiree Group Trust Amendment.....	37
Statistical Reports	
Active Member Statistics	51
Retired Payroll Statistics	52
Refund Activity and Expenditures	54
Prior Service Activity	56
Disability Retirement Report	
Disability Statistical Report	61
Approved for Disability	63
Disapproved for Disability	67
TCRS Financial Report	71

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**MINUTES OF THE
BOARD OF TRUSTEES MEETING
NOVEMBER 30, 2018**

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Minutes of the TCRS Board of Trustees Meeting on November 30, 2018

The Board of Trustees of the Tennessee Consolidated Retirement System met on Friday, November 30, 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; Mr. Justin Wilson, Comptroller of the Treasury; Mr. Tre Hargett, Secretary of State; Ms. Deborah Tate, Administrative Director of the Courts; Mr. Michael Barker, Ms. Vicki Burton, Mr. Bill Kemp, Mr. Bob Wormsley, Mr. Paul Varble, Mr. Ed Taylor, Mr. Alfred Laney, Ms. Patsy Moore, and Mr. Kevin Fielden.

Announcements

Chairman Lillard mentioned Ms. Carrie Green from the investment division has been named Director of Equity for the Tennessee Department of Treasury. Chairman Lillard mentioned Ms. Green is the first woman to manage an asset class in the Treasury Department.

Chairman Lillard mentioned Ms. Jill Bachus will be retiring. Chairman Lillard mentioned Ms. Bachus served as Director of TCRS during her time and she retires with the rank of Assistant Treasurer of Financial Strategies and Analysis.

Approval of the September 28, 2018 Minutes of the Board of Trustees

On a motion by Comptroller Wilson and seconded by Mr. Barker, the minutes of the September 28, 2018 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 discussed Knox County Emergency Communications District participation into TCRS. Ms. Mary Beth Franklyn provided an update on employer participation. She also provided updates on various meetings held during the quarter. Ms. Erica Nale provided an update on operations in the retirement system. Ms. Nale mentioned the retirement applications increased by 14% from last year.

Chairman Lillard mentioned the audit committee did not meet.

Chairman Lillard reviewed the investment committee report. The investment committee approved several private equity transactions and real estate transaction. The committee received an overview from Mr. Michael Brakebill on the investment report.

Investment Report

Chairman Lillard called on Mr. Michael Brakebill to give an overview of the investment report. Mr. Brakebill reviewed the Verus Executive Summary Report, which showed the fund ended the first quarter of fiscal year 2019 with \$50.8 billion in assets. The TCRS portfolio returned 2.71% for the quarter, with small cap and domestic equities posting strong relative returns to their respective benchmarks. On an absolute basis, the international developed and emerging markets portfolios showed weakness compared to US stocks but continue to add value in relation to their benchmarks. Mr. Brakebill continued by mentioning that since the end of the quarter on the 30th of September, performance has been challenging due to the selloff in the equity markets.

Mr. Brakebill highlighted the strong recent and long term performance in private equity and real estate, both on a relative and absolute basis. Mr. Brakebill then discussed the negative impact of rising interest rates on returns in the fixed income portfolios and mentioned that Federal Reserve Chairperson Powell recently stated that the rate hike cycle may be slowing as the federal funds rate approaches neutrality. Investments staff will continue to monitor the interest rate environment and its impact on asset classes.

Political Subdivision Petitioning for Membership in TCRS

Chairman Lillard introduced Mr. Wayman to review political subdivision seeking participation into TCRS. Mr. Wayman reviewed the request for participation in TCRS for the Knox County Emergency Communications District. The Knox County Emergency Communications District have selected the hybrid plan without cost controls. The employer rate will be 1.06% and the employees will contribute 5%. The employer will pay \$1.4 million of their unfunded liability off prior to participation. The effective date of participation in TCRS is January 1, 2019.

On a motion by Mr. Wayman and seconded by Mr. Barker, the Board unanimously approved the requests for participation in TCRS for the Knox County Emergency Communications District.

Actuarial Valuation Presentation

Chairman Lillard introduced Mr. Justin Thacker from Findley to review the actuarial valuation presentation for the Legacy plan for state employees and teachers. Mr. Thacker noted the purpose of the actuarial valuation is to determine employer contribution rates for legacy pension plans and examine financial health of plan. He also mentioned that there is a separate process and reporting for GASB 67/68 information.

As determined by June 30, 2018 actuarial valuation, the employer contribution rates for the Legacy plan will be as follows: the contributory teachers rate will be 10.63%; the consolidated state rate will be 19.80%; and state judges and attorneys general will be 25.55%.

On a motion by Chairman Lillard and seconded by Mr. Barker, the Board unanimously approved the new employer contribution rates for the Legacy plan.

Other Business

Chairman Lillard announced future meetings.

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 Comptroller Wilson and seconded by Ms. Tate, the Board unanimously approved the TCRS Board of Trustees motion to adjourn.

With no other business, the Board of Trustees adjourned at 11:20 a.m. on November 30, 2018.

Respectfully Submitted,

**Jamie Wayman
Director, TCRS**

Approved:

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

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COMMITTEE MINUTES

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Minutes of the Administrative Committee

November 30, 2018

The Administrative Committee of the Board of Trustees of the Tennessee Consolidated Retirement System met on Friday, November 30, 2018 at 9:00 a.m. The meeting was held in Conference Room D, Eighth 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. Kevin Fielden.

Approval of the September 28, 2018 Minutes of the TCRS Administrative Committee

On a motion by Ms. Tate and seconded by Mr. Varble, the minutes of the September 28, 2018, TCRS Administrative Committee meeting were unanimously approved.

Political Subdivision Update

Mr. Wayman introduced Ms. Mary Beth Franklyn, Director of Employee Reporting and Customer Service, to discuss one employer seeking participation in TCRS. Knox County Emergency Communications District sought participation effective January 1, 2019 in the Local Government Hybrid Plan without Cost Controls. Knox County Emergency Communications District will also be joining the State's 401(k) plan for the defined contribution component of the Hybrid Plan. Employees will contribute 5% of salary to the TCRS defined benefit portion of the plan, and the initial employer rate to the TCRS defined benefit portion will be 1.06%. Knox County Emergency Communications District will not offer the plan to part-time employees, and it will provide cost of living adjustments. Knox County Emergency Communications District will allow employees to establish prior service individually and will prepay to TCRS a lump sum payment for the estimated unfunded liability. The Committee and Mr. Wayman discussed that if all employees do not establish prior service, excess employer assets will be used to offset future employer contributions. The Committee and Mr. Wayman discussed that employees who established prior service would have to establish all prior service which could be done through installment payments and rollover from another qualified plan. Mr. Drew Freeman, Director of Outreach, explained that Knox County Emergency Communications District previously had a defined contribution plan for its employees. The Committee and Ms. Franklyn discussed that during January before the first report from the employer would be due to TCRS, that her staff would conduct training for Knox County Emergency Communications District on reporting, and introduced Ms. Jessica Reaves, Assistant Director of Employee Reporting and Customer Service, and Mr. Joe Walker, Manager of Employer Participation.

On a motion by Mr. Laney and seconded by Mr. Varble, the Administrative Committee unanimously recommended to the Board of Trustees that Knox County Emergency Communications District be allowed entry to TCRS.

Operations Update

Ms. Franklyn discussed the number of phone calls and meetings with participants and employers during the third quarter of 2018. Over 45,000 member phone calls were answered and 343 group meetings for members were held during the time period, and there were 745 group presentations with employers. Mr. Freeman discussed that the third quarter saw a high number of meetings due to school kickoff events,

and discussed that the Outreach team will be spending more time with individual state Human Resources offices.

Next Ms. Erica Nale, Assistant Director of TCRS, shared an update on TCRS operations. Ms. Nale discussed that the Comprehensive Annual Financial Report would be published in the next month. Ms. Nale updated the Committee that TCRS has experienced a 14% increase in retirement applications this fiscal year compared to the same time last year. Ms. Nale shared with the Committee that TCRS has seen a steady uptick in applications submitted online, with 17% of applications submitted in November submitted online. Ms. Nale discussed that TCRS has received positive feedback on the rollout of online retirement and is looking toward enhancements for 2019 such as additional services and enhanced security. Ms. Nale also discussed that initiatives for the upcoming year will include contacting lost members, both vested and non-vested, to make them aware of contributions in the plan or eligibility for benefits, and enhanced prevention of overpayments.

Actuarial Update

Mr. Wayman discussed with the Committee that TCRS' actuary, Justin Thacker, would be presenting the full actuarial valuation at the Board meeting which would include the valuation and recommended employer contribution rates for the state employees' and teachers' legacy plans, with individual political subdivision rates to come out in March or April. The Committee discussed a summary of the actuarial valuation, including the funded rates for the state employees', teachers' and judges' plans.

Other Business

Mr. Freeman advised the Committee that the Outreach team had been contacted by some employers regarding use of retirement incentives. Retirement incentive payments are not included in compensation toward retirement benefits, and Mr. Freeman discussed that the Outreach team would work with employers on this item.

Adjournment

With no other business, the Administrative Committee of the Board of Trustees adjourned at 9:50 a.m. on November 30, 2018.

Respectfully Submitted,

Erica Nale

Assistant Director, TCRS

Approved:

James E. Wayman

Administrative Committee Chair

**AUDIT COMMITTEE MEETING MINUTES
OF TENNESSEE CONSOLIDATED RETIREMENT SYSTEM (TCRS)
September 28, 2018**

The Tennessee Consolidated Retirement System (TCRS) Audit Committee for the Board of Trustees met on Friday, September 28, 2018. The meeting began at 8:01 a.m. in the Cordell Hull Building, Conference Room B.

The following committee 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 Treasury
- Jennifer Selliers, Director of Internal Compliance, TN Treasury
- Heather Iverson, Attorney, TN Treasury
- Jamie Wayman, Director of TCRS
- Kevin Gentry, Assistant Audit Director, TN Treasury
- Alison Cleaves, Assistant Treasurer for Legal, Compliance & Audit, TN Treasury

Call Meeting to Order

Chairman Barker called the meeting to order and presented the minutes from the June 29, 2018 Audit Committee meeting for approval. Secretary Hargett motioned to accept the minutes as presented and Commission Hunter seconded the motion. The minutes were unanimously approved from the June 2018 Audit Committee meeting.

Internal Audit Results

Earle Pierce presented the final results for the 2018 Bank & Investments Accounting audits. Discussion included an explanation of Bank & Investment Accounting operations as well as the scope of the internal audit. Issues regarding user access, end user controls, document retention, policy and procedure review as well as risk assessment recommendations were outlined for the Committee. The overall audit results were satisfactory with recommendations for improvement.

Mr. Pierce reviewed a list of completed audits since the last Audit Committee meeting in June 2018. This included a list of audit analytics completed on a monthly and quarterly basis.

Current Projects for TCRS

Mr. Pierce reviewed a list of current TCRS audit projects as well as those in the design phase. Chairman Barker noted the number of audit projects completed or in progress by the Internal Audit team. Chairman Barker noted the changes to TCRS recordkeeping over the years and TCRS Director Jamie Wayman as well as Treasurer Lillard discussed the changes from microfilm and paper records to electronic records with long retention times.

Private Equity Disclosure

Chairman Barker reviewed the Private Equity Disclosure and asked if there were any questions. There were no questions. Director of Internal Compliance Jennifer Selliers informed the Committee this listing will no longer be provided to the Audit Committee and going forward any issues with the conflicts of interest policy for Treasury and Investments will be brought to the Committee attention.

Comptroller's Hotline

Mr. Pierce informed the Committee there were no hotline submissions for TCRS since the last committee meeting in June 2018.

Current Internal Audit Article

Mr. Pierce discussed the article a "Conspiracy of Silence" which can envelop an organization and prevent small issues from being dealt with until they become large organizational scandals. The article also discusses the importance of assessing culture and addressing issues as they arise in order to avoid bigger issues later.

Other Business

Chairman Barker informed the Committee this meeting would be the last for Mayor Ken Wilber since he is retiring soon. Everyone thanked him for his contributions to the Committee and the Board. Jamie also discussed implementation of the Online Retirement Application process for Concord and the goal to migrate all employers to this new process over the next year.

Adjournment

Commissioner Hunter motioned to adjourn and Ed Taylor seconded the motion. The motion to adjourn was unanimously approved. The meeting adjourned at approximately 8:45 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

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**Minutes of the Meeting of the Investment Committee
November 30, 2018**

The Investment Committee of the Tennessee Consolidated Retirement System (TCRS) met on November 30, 2018 in the Cordell Hull 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; Larry Martin, Commissioner of the Department of Finance and Administration; Bill Kemp, Sumner County Clerk; Bob Wormsley, President/CEO of Local Government Insurance Pool. 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; Thomas Kim, Director of Fixed Income; Carrie Green, Director of Equity; JP Rachmaninoff, Director of Real Estate; Michael Keeler, Senior Portfolio Manager; Grant Leslie, Senior Portfolio Manager; Matthew Haitas, Senior Portfolio Manager; Stephen Wright, Senior Real Estate Analyst; Austin Monsrud, Junior Investment Analyst

Treasurer Lillard began the meeting with a motion to approve the minutes from September 28, 2018. The Motion was seconded by Mr. Kemp and was approved unanimously by voice vote. The Treasurer then called on Mr. Michael Brakebill to give an overview of the Investment Report.

Mr. Brakebill reviewed the Verus Executive Summary Report, which showed the fund ended the first quarter of fiscal year 2019 with \$50.8 billion in assets. The TCRS portfolio returned 2.71% for the quarter, with small cap and domestic equities posting strong relative returns to their respective benchmarks. On an absolute basis, the international developed and emerging markets portfolios showed weakness compared to US stocks but continue to add value in relation to their benchmarks. Mr. Brakebill mentioned that performance has been challenged since the end of September due to the selloff in the equity markets.

Mr. Brakebill highlighted the strong recent and long term performance in private equity and real estate both on a relative and absolute basis. Mr. Brakebill then discussed the negative impact of rising interest rates on returns in the fixed income portfolios and mentioned that Federal Reserve Chairperson Powell recently stated the rate hike cycle may be slowing as the federal funds rate approaches neutrality. Investments staff will continue to monitor the interest rate environment and its impact on asset classes.

The Treasurer called on Mr. JP Rachmaninoff to present a real estate transaction for approval. Mr. Rachmaninoff recommended up to a \$150 million commitment to Blackstone Real Estate Partners IX. He stated TCRS has several relationships with Blackstone through commitments to the firms GSO, Tactical Opportunities, and Strategic Partners products, highlighting the quality of the existing partnerships along with the strategies strong performance. Blackstone Real Estate Partners has consistently delivered best in class returns, even in challenging markets such as the financial crisis. BREP IX would allow for the real estate portfolio to gain exposure to international markets in addition to opportunities larger than would be feasible from direct investment or the current lineup of commingled funds.

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

Mr. Grant Leslie then presented a private equity transaction for approval. Mr. Leslie recommended a \$150 million commitment to Strategic Partners VIII. He stated that Strategic Partners is an existing TCRS manager focused on building well diversified private equity portfolios through secondary purchases of existing private equity funds. The firm has a strong track record over the last seventeen years and secondary funds generally offer investors earlier returns and cash distributions which will serve to bolster the private equity portfolio in its continued building phase.

Mr. Wormsley motioned to approve the transaction which was seconded by Mr. Martin. The motion was approved unanimously by voice vote.

The Treasurer then asked Mrs. Carrie Green to present a private equity transaction for approval. Mrs. Green recommended a \$150 million commitment to Ardian Secondaries Fund VII noting that it is another existing manager for TCRS. Mrs. Green highlighted the growth of the secondaries market and that Ardian's strategy typically involves larger transactions than the Strategic Partners platform which serves as a differentiator between the two programs.

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

Mr. Derrick Dagnan then presented a strategic lending transaction for approval. Mr. Dagnan recommended a commitment of up to \$450 million to Hayfin Separately Managed Account with an initial commitment of \$300 million. The SMA mandate is intended to be a blend of Hayfin's direct lending and special opportunities strategies, including potential co-investments. Direct lending focuses on new issue, senior-secured, cash-flow, and asset-based lending while special opportunities focuses on more complex situations where the market's perception of the risk is higher than Hayfin's analysis of the actual risk. TCRS has previously committed to both of the strategies and the separate account allows for more autonomy.

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

Mr. Michael Brakebill then presented several notifications including the recent approval for the acquisition of an apartment building near downtown Raleigh, North Carolina. He then discussed Mrs. Carrie Green's promotion to Director of Equity and highlighted her utility to Treasury. The former Director of Equity, Mr. Michael Keeler, will continue to manage the mid cap public equity portfolio.

Mr. Michael Brakebill provided an update on the state of the financial markets as well as the total plan, noting the recent sell off in large tech stocks along with other, riskier assets. Mr. Brakebill announced the creation of a small cap quantitative portfolio and highlighted the 10-year returns for both corporate fixed income and real estate.

The Treasurer notified the Investment Committee of Assistant Treasurer Jill Bachus' retirement, describing her contribution to Treasury as world class. Treasurer Lillard adjourned the meeting at 10:02 am.

Respectfully submitted,

/s/Michael Brakebill
Michael Brakebill
Chief Investment Officer

APPROVED:

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

**Minutes of the Meeting of the Investment Committee
February 14, 2019**

The Investment Committee of the Tennessee Consolidated Retirement System (TCRS) met on February 14, 2019 in the State Capitol. 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; Bill Kemp, Sumner County Clerk; Bob Wormsley, President/CEO of Local Government Insurance Pool. Additional attendees included: Lauren Topping, Assistant General Counsel; William Wood, Comptroller's Office; Michael Brakebill, Chief Investment Officer; Derrick Dagnan, Deputy Chief Investment Officer; Daniel Crews, Director of Private Equity; JP Rachmaninoff, Director of Real Estate; Jeff Dunn, Senior Portfolio Manager; Grant Leslie, Senior Portfolio Manager; Matthew Haitas, Senior Portfolio Manager; Jennifer Selliers, Director of Internal Compliance; Heather Iverson, Assistant General Counsel; Stephen Wright, Senior Real Estate Analyst; Austin Monsrud, Junior Investment Analyst.

Treasurer Lillard began the meeting by asking Mr. Matt Haitas to present a real estate transaction for approval.

Mr. Matt Haitas recommended a \$100 million commitment to Exeter Core Industrial Fund III. Mr. Haitas noted that Exeter is an existing relationship for TCRS, having invested in Fund II of this strategy along with Exeter Industrial Value Funds III and IV, a relationship the real estate team would like to continue. The strong performance of industrial real estate has provided tailwinds in recent years for Exeter, which specializes in industrial investments. With offices in each of the fourteen markets the firm focuses on, Exeter generates a significant amount of proprietary deal flow leading to attractive return expectations.

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

The Treasurer then asked Mr. Daniel Crews to present a private equity transaction for approval. Mr. Crews recommended a \$125 million commitment to Harvest Partners VIII. He stated that during a review of the private equity portfolio with TCRS consultant TorreyCove, Harvest Partners was selected as an ideal fit for the program. Two years later, the private equity team has been given the opportunity to partner with the firm. Harvest seeks stable businesses with high quality revenue streams and management teams. The strategy has been a top quartile performer and brandishes a low loss ratio. The firm specializes in the business services, healthcare, and industrial sectors, which would help diversify the private equity portfolio.

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

Mr. Grant Leslie then presented another private equity transaction for approval. Mr. Leslie proposed a \$150 million commitment to Trident Fund VIII. This is an existing relationship for TCRS, having committed to fund VI in 2014 and VII in 2016. Mr. Leslie stated that Stone Point, the general partner, has executed the same strategy in the financial sector for the past twenty years and has exhibited a low loss ratio even through tough times such as the financial crisis. Mr. Michael Brakebill further explained the diversification benefits of investing with sector specialists.

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

Mr. Grant Leslie then notified the Investment Committee of a potential co-investment platform to be proposed at a later date. The platform would outsource diligence to a third party and allow for TCRS to invest more with current managers in deals with a lower fee burden. Mr. Brakebill added this is an evolution

of the alternative investment program as the portfolios become more sophisticated. Mr. Derrick Dagnan also noted that co-investment has been offered across all three of the TCRS alternative portfolios; however, there is no solution in place to access the opportunities at the individual deal level.

Treasurer Lillard asked Mr. Grant Leslie about the increased discretion and monitoring of investments that would be in this portfolio. Mr. Leslie stated staff would be able to put controls in place including limits on specific exposures or potential veto rights. Mr. Crews added that TCRS could implement guidelines much like how separately managed accounts are structured, which would be able to be revised over time. Treasurer Lillard stated he is looking forward to learning more about the opportunity when diligence has concluded.

The Treasurer then called on Mr. Michael Brakebill to review the TCRS portfolio and current state of the financial markets. Mr. Brakebill highlighted private equities 23% return for calendar year 2018 as well as the long term performance numbers. He stated while the total fund performance for the quarter was poor on an absolute basis, relatively it outperformed 70% of peers. Following the equity market selloff in the quarter, staff purchased stocks in December and January. As the markets recovered, this asset allocation decision helped increase the total plans value by \$3.3 billion since the market bottomed. Mr. Brakebill also explained the denominator effect that alternative assets experience in volatile times as the public assets decline sharply in value, the private assets are typically only valued quarterly. The difference in this timing results in the alternative assets growing as a percent of total fund assets.

Seeing no further comments, Treasurer Lillard adjourned the meeting at 9:47 am.

Respectfully submitted,

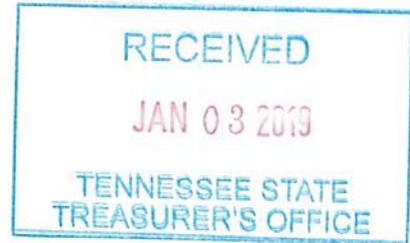
/s/Michael Brakebill
Michael Brakebill
Chief Investment Officer

APPROVED:

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

**TCRS BOARD OF TRUSTEES
APPOINTMENT**

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December 20, 2018

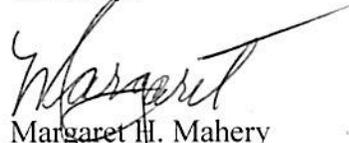
The Honorable David H. Lillard, Jr., Treasurer
Tennessee Department of Treasury
State Capitol
Nashville, TN 37243

Dear Treasurer Lillard:

The Tennessee Municipal League would like to appoint Tim Ellis, City Manager, City of Goodlettsville, as the representative for TML on the Tennessee Consolidated Retirement System Board of Trustees, to fill the remainder of Ken Wilber's term, effective now through June 30, 2019.

Thank you for your consideration and please feel free to contact me if you have questions.

Sincerely,


Margaret H. Mahery
TML Executive Director

MHM/jg

c: Ms. Jamie Wayman, Director
Tennessee Consolidated Retirement System

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AUDIT COMMITTEE APPOINTMENTS

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TIM ELLIS

City Manager - City of Goodlettsville, Tennessee



Tim Ellis was appointed as the City Manager of the City of Goodlettsville in 2011 after serving as Assistant City Manager since 2007. He originally began his public service career in the Parks, Recreation and Tourism field and has over 32 years of experience in local government administration, with the Cities of Springfield, White House and Goodlettsville.

Mr. Ellis oversees all City operations with the assistance of a highly dedicated staff and works closely with the City Commission to carry out its goals and policy directives. He is responsible for the operations of the City, which consists of a total 2019 Fiscal Year budget of \$29.6 million, with 145 full-time employees.

Over the past 9 years Mr. Ellis has strived to promote and encourage public engagement with each citizen and business owner, so that they will be better informed and take a more active role in making Goodlettsville an even better place to call home.

He is an active member of the International City/County Management Association, where he serves on conference program and host committee's and the Tennessee City Managers Association, where he serves on the Executive Board of Directors, along with other associations and organizations. Mr. Ellis currently serves as the Chairman of the Forward Sumner Economic Partnership, Member of the United States Department of Agriculture's - Land Between the Lakes National Recreation Area Board, Leadership Goodlettsville Board of Directors, Goodlettsville Help Center Board of Directors. Goodlettsville Area Chamber of Commerce Board of Directors and is a former member of the Southern Regional Council of the National Recreation & Parks Association.

In 2017 he was named the City Manager of the Year for the State of Tennessee by the Tennessee City Managers Association.

He and Dena his wife of thirty one years, have two daughters, Brandi and Stefanie and two grandsons Brayden & Liam and a granddaughter Reese.

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Juan Williams

Commissioner
Human Resources

Juan Williams was appointed Commissioner of the Department of Human Resources by Governor Bill Lee. Prior to this appointment, he spent fourteen years at Duke Energy's Piedmont Natural Gas Division in management positions in Human Resources, Utility Operations, and Change Readiness.

During his tenure at Duke Energy Nashville Resource Center, Juan advised managers, supervisors and employees on matters including operations and workplace culture. Previously, Juan served as the Director of Change Readiness with focuses on business process, systems and technology, talent management and restructuring. He also led the Human Resources department with oversight over Employee Relations, Labor Relations, Talent Acquisition and Business Support functions. In addition to nearly 17 years of human resources and operations experience, Juan is an active member of the community and serves on the PENCIL Foundation Board of Directors.

Juan is a results oriented energetic leader with a focus on excellence in communication and continuous learning.

Juan received a bachelor's degree in business from North Carolina Wesleyan College and MBA from Queens University in Charlotte, NC.

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**TCRS AUDIT
COMMITTEE CHARTER**

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JUSTIN P. WILSON
Comptroller

JASON E. MUMPOWER
Deputy Comptroller

February 28, 2019

Mr. Earle Pierce, Internal Audit Director
Tennessee Department of the Treasury
13.305, Andrew Jackson Building
502 Deaderick Street
Nashville, Tennessee 37243

Dear Mr. Pierce:

Thank you for your submission of a revised audit committee charter for the Tennessee Consolidated Retirement System. We have reviewed the charter for compliance with the Comptroller's Guidelines for Audit Committee Charters. I am pleased to approve the revised charter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Justin P. Wilson", is written over the word "Sincerely,".

Justin P. Wilson
Comptroller of the Treasury

JPW/geb

**TCRS BOARD OF TRUSTEES
AUDIT COMMITTEE CHARTER**

PURPOSE

The primary purpose of the TCRS Audit Committee is to assist the Board of Trustees in fulfilling its oversight responsibilities with respect to:

- The financial reporting process
- The system of internal controls and risk management
- The internal and external audit process
- The standards of professional conduct

The Audit Committee's responsibility is one of oversight recognizing the agency's management is:

- Responsible for preparing the financial statements
- Subject to the financial and accounting policies for the State of Tennessee
- Implementing and monitoring internal controls as well as compliance with laws and regulations
- Recognizing the Comptroller of the Treasury is statutorily responsible for financial and compliance auditing

AUTHORITY

The Audit Committee has authority to:

- Conduct or authorize investigations into any matters within its scope of responsibility
- Oversee resolution of any disagreements between management and the auditor regarding financial reporting
- Seek any information required from employees whom are directed to cooperate with such requests
- Meet as needed with divisional officers, state auditors or legal counsel
- Require internal auditors to report directly to the Audit Committee

COMPOSITION & MEETINGS

The Audit Committee shall be a standing committee of the Board of Trustees consisting of five members of the Board of Trustees. The members of the Audit Committee shall be independent and have the appearance of independence of any conflicts of interest in regards to their duties as members of the Audit Committee. The Board has the responsibility to ensure the Audit Committee chair has the requisite accounting/business management background to discharge the duties of the audit committee. The Audit Committee membership should have an adequate background and education to discharge their duties.

The chair of the Board of Trustees will nominate audit committee members and The Board of Trustees shall approve the audit committee members and the chair of the audit committee. A majority of the Audit Committee shall constitute a quorum. Audit Committee members will serve a three year term.

The Audit Committee shall meet to discuss internal and external audit reports as well as other business no less often than once per year. Participation in committee meetings may be in person or via teleconferencing as permitted by state regulation. Written minutes of all meetings will be maintained.

RESPONSIBILITIES

Audit Committee responsibilities include:

Financial Reporting Process

- Review significant accounting and reporting standards, as applicable
- Review financial statements and comprehensive annual financial report

Internal Controls & Risk Management

- Review management's processes for monitoring compliance with policies, plans, procedures, laws, and regulations with management
- Understand the scope of internal and external auditors' review of internal control
- Inquire of management and auditors about significant risks and how those risks are managed
- Review management's processes for assessment of risk, including fraud risk, for adequacy
- Review risk assessment results ensuring internal controls sufficiently mitigate assessed risks in the agency

Internal & External Audit

- Review reports issued by internal and external auditors
- Ensure management has taken appropriate action on audit recommendations made by internal or external auditors
- Discuss the proposed scope and approach of the external audit as well as the results of the audit with representatives of the Comptroller of the Treasury, including any difficulties encountered during the course of the audit
- Encourage internal or external auditors to discuss any issues of concern with the Audit Committee

Standards of Conduct

- Immediately report any fraud to the Comptroller of the Treasury's office
- Communicate to the Director of TCRS, the Chief Investment Officer, and the Treasurer their responsibility for preventing, detecting, and reporting fraud, waste, and abuse as well as reporting any instances of fraud, waste, and abuse to the Audit Committee and the Comptroller of the Treasury
- Review communications from the Director of TCRS, the Chief Investment Officer, and the Treasurer to agency personnel concerning their obligation to prevent, detect, and report fraud, waste and abuse as well as reporting any instances of fraud, waste and abuse to the Audit Committee and the Comptroller of the Treasury
- Ensure procedures exist for the receipt, retention, and treatment of complaints about accounting, internal controls, or auditing matters
- Periodically review the agency's Professional Standards of Conduct and Code of Ethics ensuring it is easy to access, widely communicated, and easy to understand and implement
- Ensure the Professional Standards of Conduct contains a comprehensive conflict of interest policy which includes documenting potential conflicts and resolutions
- Ensure the Professional Standards of Conduct are enforced

- Ensure the term “conflict of interest” is clearly defined
- Review management’s process for obtaining, within division policies or at least annually, documentation of employees’ signatures acknowledging review of the agency’s Professional Standards of Conduct
- Regularly update the board about Committee activities and make appropriate recommendations
- Periodically review and amend the Audit Committee charter

Audit Committee Relationship with Management

- Review management’s assertion internal controls are effective and adequate
- Evaluate whether management is setting the appropriate ‘control culture’ and ‘tone at the top’ by communicating the importance of internal controls and risk management
- Ensure a confidential mechanism is in place for staff to report any suspected fraud, abuse or other complaints regarding operations to the Audit Committee

Chairman, TCRS Audit Committee

Adopted by TCRS Board of Trustees

Date _____

Chairman _____

Secretary _____

Revised: 2/25/2019

**RETIREE GROUP TRUST
AMENDMENT**

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Amendment One
Group Trust Declaration
State of Tennessee Retiree Group Trust

WHEREAS, the State of Tennessee (the “State”) established the State of Tennessee Retiree Group Trust (the “Group Trust”), effective as of March 27, 2015;

WHEREAS, the State reserve the right to amend the Group Trust pursuant to Section 8.02 of the Group Trust Declaration;

WHEREAS, the State now desires to amend the Group Trust to permit the State Treasurer, as Custodian, to determine in his sole discretion an entity’s eligibility to participate in the Group Trust and become a Participating Trust;

NOW, THEREFORE, the Group Trust Declaration is hereby amended, effective on the date this document is adopted by the Board, as set forth below:

Section 1.5 of the Group Trust Declaration is amended by deleting the section in its entirety and replacing with the following:

Section 1.5 Participating Trusts. The Custodian shall be the sole judge of whether an entity is eligible to participate hereunder and become a Participating Trust.

**THE BOARD OF TRUSTEES OF THE TENNESSEE CONSOLIDATED RETIREMENT
SYSTEM ADOPTED THIS AMENDMENT ONE TO THE GROUP TRUST
DECLARATION AT ITS BOARD MEETING ON March 29, 2019.**

David H. Lillard, Jr., Chairman
Board of Trustees
Tennessee Consolidated Retirement System

Date

**Group Trust Declaration
for the
State of Tennessee Retiree Group Trust**

RECITALS

1. The State of Tennessee (the “State”), pursuant to Tennessee Code Annotated (“TCA”), Title 8, Chapters 34-37 maintains certain pension benefit plans (the “Pension Plans”) for the exclusive benefit of providing benefits to certain current and future retired employees and their beneficiaries and dependents. The Tennessee Consolidated Retirement System (“TCRS”) and its board of directors (“Board”) were established by Tennessee Code Annotated Title 8, Chapters 34-37. The State Treasurer (the “Treasurer”) is custodian of TCRS funds pursuant to TCA § 8-37-102.
2. The Board is authorized by TCA § 8-37-104 to adopt a master or group trust for the purpose of pooling funds of TCRS with other assets in the custody of the Treasurer, solely for investment purposes, that 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 (such assets referred to herein as “Retirement Assets”).
3. The State, pursuant to TCA, Title 8, Chapter 25 maintains certain deferred and tax-sheltered compensation plans (the “DC Plans”) for the exclusive benefit of providing benefits to certain current and future retired employees and their beneficiaries and dependents.
4. Should the trustees of a DC Plan authorize that participants in the DC Plan be offered as an investment option one or more comingled funds in which assets in the custody of the Treasurer that consist exclusively of Retirement Assets are pooled, solely for investment purposes, in a common or group trust fund, the trust established under such DC Plan shall be a Participating Trust hereunder in accordance with the terms hereof.
5. The members of the Board will act as trustees, under the terms and conditions of this Group Trust Declaration (hereinafter “Trustees”) for the money or property transferred to the Group Trust from time to time (the “Group Trust Funds”).
6. The Treasurer shall be the custodian of the Group Trust Funds pursuant to TCA §§ 8-37-102 and 8-37-104. The Group Trust Funds shall be invested solely in accordance with T.C.A. 8-37 Part 1.

ARTICLE I
ESTABLISHMENT OF THE GROUP TRUST

Section 1.1 The Group Trust. The Board hereby establishes the State of Tennessee Retiree Group Trust (the "Group Trust") for the purposes stated in the recitals hereto, by adoption of this declaration (the "Group Trust Declaration"). The members of the Board shall be the trustees of the Group Trust ("Trustees") with the Chairman and Secretary of the Board serving in respective roles for the Group Trust. This Group Trust is intended to qualify as a group trust under Internal Revenue Service Revenue Ruling 81-100, 1981-1 C.B. 326, as amended by Rev. Ruls. 2004-67, 2008-40 and 2011-1, and any successor ruling, regulation or similar pronouncement ("Revenue Ruling 81-100"), and this Group Trust Declaration shall be construed to give effect to that intention.

Section 1.2 Group Trust Fund. The Trustees hereby establish a trust fund consisting of such monies or other property as shall from time to time be transferred to the Group Trust from a Participating Trust (such monies and other property together with the proceeds and reinvestments thereof, the income therefrom and any other increment thereto shall be hereinafter referred to as the "Group Trust Fund"). Deposits into the Group Trust Fund shall be received only from trusts which meet the requirements of Revenue Ruling 81-100. The Treasurer shall serve as custodian of the Group Trust Fund (the "Custodian").

Section 1.3 Participating Trust Assets. Assets of Participating Trusts shall consist exclusively of trust assets held under plans qualified under Internal Revenue Code of 1986, as amended (the "Code") § 401(a) that are exempt under Code § 501(a); funds from Code § 401(a)(24) governmental retiree benefit plans that are not subject to Federal income taxation; funds from individual retirement accounts that are exempt under Code § 408(e); and funds from eligible governmental plan trusts or custodial accounts under Code § 457(b) that are exempt under Code § 457(g). For this purpose, a trust includes a custodial account that is treated as a trust under Code § 401(f), Code § 408(h), or Code § 457(g)(3). Appendix A lists the Participating Trusts, which may be updated from time to time by the Custodian.

Section 1.4 Situs of Trust. The Group Trust will be located and administered in the State of Tennessee at the office of the Treasurer.

Section 1.5 Participating Trusts. The Custodian shall be the sole judge of whether a Pension Plan or a DC Plan is eligible to participate hereunder and become a Participating Trust.

ARTICLE II

PROVISIONS RELATING TO THE TRUSTEE AND CUSTODIAN

Section 2.1 Title to Trust Property. The Trustees shall have legal title to the assets of the Group Trust. No Participating Trust shall be deemed to have individual ownership interest of any asset thereof. Instead, each Participating Trust shall have an undivided ownership interest in the Group Trust Funds and shall share proportionately with all other Participating Trusts in the net income, profits, and losses thereof.

Section 2.2 Trustee and Treasurer Responsibility. The Trustees hereby delegate administrative responsibility over the Group Trust to the Custodian. In such capacity, the Treasurer shall (i) serve as Custodian of the Group Trust Fund, (ii) hold, administer, collect the income of, and make payments from the Group Trust Fund, and (iii) have such other authority and responsibility as set forth herein.

Subject to the conditions and limitations set forth herein, the Custodian shall be responsible only for the property actually received by it hereunder, and shall not be responsible for the administration or interpretation of the Pension Plan or any DC Plan solely by reason of this Group Trust Declaration (including, without limitation, the determination of participation rights of any person and the determination of benefits or rights of any person having or claiming any interest in or benefit under the Group Trust Fund or the Pension Plan or any DC Plan) or for those assets of any Participating Trust that have not been delivered to and accepted by the Custodian. The Custodian shall be under no duty or obligation, and shall have no right, to determine the adequacy of or to compute any amount to be paid to it pursuant to the Pension Plan or any DC Plan, or to enforce the collection of any sums from a Participating Trust solely by reason of this Group Trust Declaration.

Section 2.3 Exclusive Benefit and Prohibited Assignment. At no time shall any part of the Group Trust Fund be used for, or diverted to, any purpose other than for the exclusive purpose of providing benefits to participants and beneficiaries of the Participating Trusts (collectively, the "Eligible Participants"), including providing such benefits through the funding of the benefits payable to such Eligible Participants and by the payment of reasonable expenses of each respective Participating Trust. At no time shall any part of the Group Trust Fund that equitably belongs to any Participating Trust be used for, or diverted to, any purpose other than for the exclusive benefit of the Eligible Participants of the Participating Trust. At no time may any Participating Trust assign any portion of its equity or interest in the Group Trust Fund.

Section 2.4 Policies and Procedures Governing Disbursement of the Group Trust Fund. The Custodian shall adopt policies and procedures to ensure that disbursements from the Group Trust Fund to and/or for the benefit of the Eligible Participants, are made at such times, in such manner, in such amounts, in such form and for such purposes as may be properly specified by a person authorized to act on behalf of the Pension Plan, DC Plan or Participating Trust, as applicable (an "Authorized Person"). The Custodian shall be under no duty or obligation under this Group Trust Declaration to

make any inquiry or investigation as to whether any direction is made pursuant to the provisions of the Pension Plan, a DC Plan or Section 2.2. Any such direction from an Authorized Person shall be deemed to include a certification that any payment directed thereby is one which such person is authorized to direct, and the Custodian may conclusively rely on such certification without further inquiry. Payment in response to such direction from an Authorized Person shall be a complete discharge of the Custodian of its responsibility for the holding and safe-keeping of such assets and any assets so paid over shall no longer constitute part of the Group Trust Fund.

Section 2.5 Powers and Duties of Trustees and Treasurer. The Trustees and the Custodian shall have only those powers, rights, duties and responsibilities expressly set forth in this Group Trust Declaration (determined without regard to any Participating Trust), which hereby incorporates by reference those powers and duties described in TCA Chapter 37, including, without limitation, TCA §§ 8-37-104 through 8-37-116, and such other powers provided by Tennessee law for fiduciaries acting in a similar capacity, to the extent not inconsistent with such statutes and this Group Trust Declaration.

ARTICLE III ACCOUNTS AND INVESTMENT OF GROUP TRUST FUND

Section 3.1 Commingled Funds and Accounting. The Custodian shall consolidate the assets transferred to the Group Trust from the Participating Trusts in a single fund, or multiple funds, which may be commingled for investment purposes, and shall maintain a bookkeeping accounting system whereby the beneficial interest of each Participating Trust in each such fund is identifiable (the "Participating Trust Accounts"). The contributions of, and the disbursements made with respect to, each Participating Trust shall be credited to or charged against such Participating Trust Accounts.

The Custodian shall adjust, account for, and allocate investment transactions, valuations of assets, rates of return and expenses with respect to the Group Trust Fund as a whole and with respect to each separate Participating Trust account, and those records shall be available at all reasonable times to the trustees of the Participating Trusts.

The separate Participating Trust account of each Participating Trust shall reflect the contributions made with respect to such Participating Trust, the share of investment gain and loss attributable to such Participating Trust, and disbursements made with respect to such Participating Trust. The beneficial interest of each Pension Plan or DC Plan in the Group Trust Funds from time to time shall be equal to the balance credited to its Participating Trust account. The Participating Trust, the Eligible Participants of each Pension Plan or DC Plan, and all other persons claiming under, through or against the Pension Plan or DC Plan shall in the aggregate not have any right to or claim against any assets of the Group Trust in excess of the balance credited to the Participating Trust account of such Participating Trust. The Custodian shall cause the separate Participating Trust account of each Pension Plan or DC Plan to be adjusted periodically to reflect the share of each of the Participating Trusts of

Group trust declaration 03.27.15

the fair market value of the Group Trust. For purposes of valuation, the value of the interest maintained by the Group Trust Fund with respect to any Participating Trust account shall be the fair market value of the portion of the fund held for that Participating Trust account, determined in accordance with generally recognized valuation procedures.

The Participating Trust account need not be invested separately or segregated on account of the maintenance of such separate account; the separate Participating Trust accounts shall be maintained only as a bookkeeping entry to reflect the share of each Participating Trust participating in the Group Trust.

Section 3.2 Custodian to Manage and Direct Investment. The Custodian shall be responsible for managing and directing the investment of the Group Trust Funds in the same manner as it invests funds of TCRS.

ARTICLE IV WITHDRAWAL PROCEDURES, DIRECTIONS TO TRUSTEE

Section 4.1 Withdrawals from Group Trust. Any Participating Trust may at all times have the right to withdraw any or all of its Participating Trust account, provided that such right of withdrawal shall be limited by such policies and procedures that the Custodian may require. Appropriate accounting records pursuant to Section 3.1 herein shall be maintained at all times as to the amount of each Participating Trust account. Upon the withdrawal of assets from the Group Trust Funds, the Custodian shall distribute from the Group Trust Funds to the Participating Trust making such withdrawal the sum properly specified. Such distribution will be made in cash or in kind or some combination of cash or in kind as the Custodian in its sole discretion shall determine.

Section 4.2 Directions to the Trustee. The Custodian shall adopt such policies and procedures necessary to ensure certificates, notices, orders, requests, instructions, directions or objections (sometimes referred to as a "Direction" or "Directions" as the context so requires) received from an Authorized Person are satisfactorily evidenced to the Custodian by a written statement signed by an Authorized Person (provided, however, that the Custodian may, in its sole discretion, accept oral notices, orders, requests, instructions, directions and objections subject to confirmation in writing), and the Custodian shall be fully protected for acting in accordance therewith or for failing to act in the absence thereof. Directions to the Custodian shall be sent to such address as the Custodian shall designate in writing from time to time and in such format as may be mutually agreed between the parties. Such communications to the Custodian shall be binding upon the Group Trust and the Custodian when received by the Custodian. In addition, the Custodian shall be fully protected in acting in accordance with Directions received by it through authenticated telecommunications facilities, including without limitation, communications effected directly between electro-mechanical or electronic devices, to the same extent as if such Directions were in writing.

Notwithstanding anything to the contrary in this Group Trust Declaration, if the Custodian is also an Authorized Person, the Custodian may act in accordance with the terms of the applicable Pension Plan, the DC Plan or a Participating Trust, the terms of which are hereby incorporated herein by reference, and such action may be deemed to be taken in accordance with a Direction received under this Group Trust Declaration.

ARTICLE V FIDUCIARY OBLIGATIONS

Section 5.1 Standard of Care. The Trustees and Custodian are fiduciaries and shall discharge their duties with respect to the Group Trust solely in the interests of the Eligible Participants and for the exclusive purpose of providing benefits to such persons and defraying the reasonable expenses of administering the Group Trust, in a manner consistent with TCA § 35-14-107, the prudent investor rule of TCA § 35-14-103, the standard of care described in TCA § 35-14-104, and the exercise of reasonable care in delegation of investment and management functions described in TCA § 35-14-111. However, notwithstanding the foregoing, the Trustees and Custodian shall not, solely by reason of this Group Trust Declaration, be under any duty to require payment of any contributions to the Group Trust Fund or to see that any payment made to the Group Trust Fund is computed in accordance with the provisions of the Pension Plan, a DC Plan or policy of reimbursement or otherwise be responsible for the adequacy of the Group Trust Fund to meet and discharge any liabilities under the Pension Plan or a DC Plan. The duties and obligations of the Trustees and Custodian as such shall be limited to those expressly imposed upon them by this Group Trust Declaration. Notwithstanding any reference to the Pension Plan, the DC Plans or provisions thereof, it is hereby expressly agreed that no Trustee is a party to the Pension Plan or the DC Plans merely by the operation of this Group Trust Declaration.

Section 5.2 Allocation of Responsibility. Except as may be otherwise provided by statute, no fiduciary under this Group Trust Declaration shall be liable for any alleged or actual act or failure to act on the part of another fiduciary in carrying out any fiduciary responsibility where such fiduciary responsibility is allocated to such other fiduciary by this Group Trust Declaration or pursuant to a procedure established in this Group Trust Declaration.

ARTICLE VI RESIGNATION AND REMOVAL

Section 6.1 Resignation and Removal of Trustee. Any Trustee who is a member of the Board shall be deemed to have automatically resigned as a Trustee on the date he or she ceases to be a member of the Board. This provision shall be self-executing and no further act shall be necessary to effectuate such resignation.

ARTICLE VII
EXPENSES OF FUND

Section 7.1 Expenses of Group Trust Fund. All expenses properly and actually incurred by the Trustees or Custodian, including fees for legal and other services rendered with respect to the establishment and administration of this Group Trust, shall be allocated and paid from the Group Trust. Notwithstanding the foregoing, the Group Trust shall not be liable or responsible for the payment of fees incurred on account of any misfeasance, malfeasance, or nonfeasance of the Trustee or Custodian or on account of any act or omission in violation of this Group Trust Declaration or of any applicable law.

ARTICLE VIII
AMENDMENT AND TERMINATION

Section 8.1 General Rule on Termination. Except as expressly provided in this Article VIII, no Participating Trust shall be entitled to terminate the Group Trust hereunder. The bankruptcy of a Pension Plan or a DC Plan shall not cause the termination of the Trust.

Section 8.2 Amendment; Termination. The Trustees shall have the right at any time to amend this Group Trust Declaration. Notwithstanding anything to the contrary herein, in no event shall this Group Trust Declaration be amended or modified in any manner that would allow the Group Trust Funds to be distributed, disbursed or otherwise administered for any purpose other than those purposes identified in Section 2.3 above. The Trustees shall have the right to terminate the Group Trust at any time. If the Group Trust is terminated, the assets of the Group Trust must be returned to the Participating Trust(s). No Group Trust assets may be used for any other purpose.

ARTICLE IX
GENERAL PROVISIONS

Section 9.1 Assignability. Except as specifically permitted by this Group Trust Declaration, the Pension Plan, a DC Plan or applicable law, no beneficial interest in the Group Trust Fund is assignable or subject to transfer, hypothecation, encumbrance, anticipation, alienation, legal process, pledge, mortgage, levy, execution, receivership, attachment or garnishment by any Eligible Participant, nor shall any interest pass to any trustee in bankruptcy or otherwise be reached or applied by any legal process for the payment of any obligation of any such person.

Section 9.2 Taxes.

(a) Except as provided in subparagraph (b) below, neither the Custodian, nor the Trustees, nor their agents or custodians shall have any responsibility or liability for any obligations now or hereafter imposed upon a Pension Plan or DC Plan, the property held under this Group Trust Declaration, or upon the Custodian, Trustees or their agents or custodians hereunder by the tax laws of the United States or any political subdivision thereof, or any foreign jurisdiction.

(b) It shall be the responsibility of a Participating Trust to notify the Custodian of any obligations imposed on such Participating Trust, the property held under this Group Trust Declaration or upon the trustees or their agents or custodians of such Participating Trust by the tax law of any jurisdiction, including responsibility for withholding and other taxes, assessments or other governmental charges, certification and governmental reporting. The Custodian shall use reasonable efforts to assist the Participating Trust with respect to any claim for exemption or refund under the tax law of any jurisdiction for which the Participating Trust has provided information.

Section 9.3 Employee Rights. Neither the establishment of this Group Trust, nor any modification thereof, nor the creation of any fund or account, nor the payment of any benefits, shall be construed as giving to any employee, retired employee or other person any legal or equitable right against the Trustees, any Pension Plan or DC Plan, or any officer, employee or member of any thereof, except as herein expressly provided; and in no event shall the terms or conditions of employment of any employee, or the control of any Pension Plan or DC Plan over the same, be modified or in any manner affected hereby.

Section 9.4 Successors and Assigns. This Group Trust Declaration shall be binding upon, and the powers granted to the Trustees, hereunder shall be exercisable by the Trustees' successors and permitted assigns.

Section 9.5 Governing Law.

(a) This Group Trust Declaration shall be construed, enforced and administered and the validity thereof determined in accordance with the laws of the State of Tennessee.

(b) The headings and subheadings in this Group Trust Declaration are inserted for convenience of reference only and are not to be considered in the construction of any provision of the Group Trust Declaration.

(c) In resolving any conflict among provisions of this Group Trust Declaration and in resolving any other uncertainty as to the meaning or intention

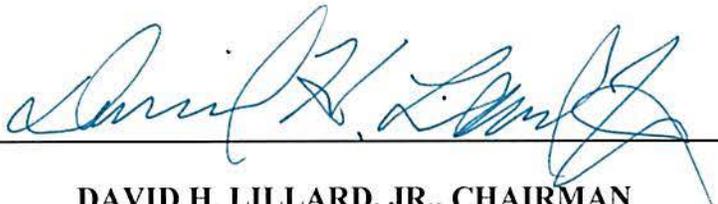
Group trust declaration 03.27.15

of any provision of this Group Trust Declaration, the interpretation that (i) causes the Trust to be exempt from tax as an instrumentality of the State of Tennessee, (ii) causes the Trust to comply with all applicable requirements of the Code, and (iii) causes the Trust to comply with Revenue Ruling 81-100, shall prevail over any different interpretation.

Section 9.6 Severability of Provisions. If any provision of this Group Trust Declaration is held illegal or invalid for any reason, such illegality or invalidity shall not affect the remaining provisions of this Group Trust Declaration, but shall be fully severable, and this Group Trust Declaration shall be construed and enforced as if the illegal or invalid provision had never been included herein.

Section 9.7 Gender and Number. Wherever any words are used herein in the masculine, feminine or neuter, such words shall be construed as though they were also used in another gender in all cases where they would so apply. Additionally, whenever any words are used herein in the singular or the plural form, such words shall be construed as though they were also used in another form in all cases where they would so apply.

**THE BOARD OF TRUSTEES OF THE TENNESSEE CONSOLIDATED
RETIREMENT SYSTEM ADOPTED THIS GROUP TRUST DECLARATION,
PURSUANT TO TENN.CODE ANN. § 8-37-104(f), AT ITS BOARD MEETING
ON March 27, 2015.**



**DAVID H. LILLARD, JR., CHAIRMAN
BOARD OF TRUSTEES
TENNESSEE CONSOLIDATED RETIREMENT SYSTEM**



DATE

Group trust declaration 03.27.15

APPENDIX A

Tennessee Consolidated Retirement System

State of Tennessee Deferred Compensation Plan and Trust

State of Tennessee Deferred Compensation Plan II

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STATISTICAL REPORTS

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ANALYSIS OF MEMBERS ACTIVELY CONTRIBUTING

	12/31/2016	3/31/2017	6/30/2017	9/30/2017	12/31/2017	3/31/2018	6/30/2018	9/30/2018	12/31/2018
Group I Members:									
(State & Higher Ed.)	42,815	42,861	41,731	40,996	40,674	38,617	37,974	37,057	36,509
Highway Patrol	711	713	704	692	685	679	668	634	627
Wildlife Officers	188	187	186	183	187	183	180	179	176
Teachers	60,013	59,884	58,365	58,202	58,306	56,800	55,712	54,935	53,833
General Employees of Polisubs	73,821	74,574	73,897	74,966	76,301	73,732	73,484	73,239	73,053
Firemen & Policemen	7,233	7,306	7,350	7,476	7,617	7,480	7,659	7,712	7,940
General Assembly	98	97	96	94	92	87	89	93	80
County Officials	1	2	2	2	2	2	2	1	1
Board Members	395	389	382	378	382	370	373	368	419
County Judges	14	14	12	11	10	8	7	6	6
Attorney: ...	506	500	493	489	488	468	468	461	457
Total Group I	185,795	186,527	183,218	183,489	184,744	178,426	176,616	174,685	173,101
Group II & Prior Class:									
Wildlife Officers									
Highway Patrol									
Firemen & Policemen-									
Political Subdivisions	11	11	10	10	9	8	8	8	8
Total Group II & Prior Class	11	11	10	10	9	8	8	8	8
Group III and Prior Class:									
State Judges	1	1	1	1	1	1	1	1	-
County Judges	1	1	1	0	0				
Attorneys General	1	1	1	0	1	1	1	1	1
County Officials	2	2	2	2	2	2	2	2	1
Total Group III & Prior Class	5	5	5	3	4	4	4	4	2
Group IV									
State Judges	115	113	113	111	109	111	112	111	114
State & Teacher Hybrid Plan									
State	12,521	13,957	14,869	15,929	17,543	17,407	17,797	18,991	19,742
General Assembly	27	27	27	28	28	29	30	30	48
Teacher	15,291	15,965	15,681	19,099	20,751	19,931	19,601	22,936	23,049
Attorneys General, Judges	36	35	35	36	37	42	41	41	47
Political Subdivisions	711	971	1,244	1,620	1,996	2,052	2,243	2,572	2,917
Public Safety	178	220	222	222	296	306	309	374	350
Alcoa	43	43	43	43	42	40	40	39	0
Local Government Plans									
Alternate DB	34	36	36	40	45	48	49	51	54
Hybrid Plan W/O Cost Control	217	244	267	292	320	371	413	472	492
Total Membership									
Contributing to TCRS	216,493	218,731	215,770	220,922	225,924	218,763	217,251	220,191	219,800
Teachers Contributing to ORP	8,830	8,804	8,638	8,387	8,213	8,028	8,219	8,054	7,860
Grand Totals	225,323	227,535	224,408	229,309	234,137	226,791	225,470	228,245	227,660

**RETIRED PAYROLL
STATISTICS
December 31, 2018**

	<u>AMOUNT</u>	<u># OF RETIREES</u>
STATE EMPLOYEES	\$67,142,003.74	47,561
STATE PAID JUDGES	\$1,085,752.65	220
COUNTY PAID JUDGES	\$243,789.03	64
ATTORNEY GENERALS	\$961,541.87	242
COUNTY OFFICIALS	\$316,799.23	143
PUBLIC SERVICE COMMISSIONERS	\$7,626.75	4
POLITICAL SUBDIVISIONS	\$36,188,084.69	40,701
TEACHERS	\$109,991,242.20	51,192
LOCAL TEACHERS	\$3,067,038.19	1,561
GOVERNORS AND WIDOWS	28309.75	4
AGED TEACHERS	\$224.81	2
OTHERS	\$274,697.88	105
TOTAL	\$219,307,110.79	141,799

RETIRED PAYROLL
October 1, 2018
through
December 31, 2018

	<u>AMOUNT</u>	<u># OF RETIREES</u>
STATE EMPLOYEES	\$201,224,124.42	47,561
STATE PAID JUDGES	\$3,252,199.44	220
COUNTY PAID JUDGES	\$740,004.12	64
ATTORNEY GENERALS	\$2,892,289.82	242
COUNTY OFFICIALS	\$966,385.18	143
PUBLIC SERVICE COMMISSIONERS	\$22,880.25	4
POLITICAL SUBDIVISIONS	\$108,579,013.49	40,701
TEACHERS	\$331,270,225.05	51,192
LOCAL TEACHERS	\$9,250,873.24	1,561
GOVERNORS AND WIDOWS	\$84,929.25	4
AGED TEACHERS	\$674.43	2
OTHERS	<u>\$834,539.72</u>	<u>105</u>
TOTAL	\$659,118,138.41	141,799

NOTE: NINETY-FIVE PERCENT (95%) OF THE RETIREES ARE ON DIRECT DEPOSIT

NUMBER OF MEMBERS REFUNDED

<u>Month</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>	<u>2018-19</u>
July	475	516	613	512	417	451	479
August	471	782	820	403	425	458	581
September	394	457	586	522	458	343	426
October	375	378	483	364	379	468	433
November	319	314	244	359	321	313	389
December	241	276	338	326	344	373	283
January	338	402	322	386	308	324	
February	335	310	238	351	380	404	
March	253	284	331	355	354	332	
April	311	424	338	347	405	284	
May	274	866	247	332	347	305	
June	336	674	383	336	352	328	
TOTAL	<u>4,122</u>	<u>5,683</u>	<u>4,943</u>	<u>4,593</u>	<u>4,490</u>	<u>4,383</u>	<u>2,591</u>

**REFUND EXPENDITURES
2018-2019 FISCAL YEAR**

MONTH	MEMBER'S CONTRIBUTIONS	414(H) CONTRIBUTIONS	MEMBER'S INTEREST	EMPLOYER CONTRIBUTIONS	DEATH PAYMENTS	TOTAL
July	97834.52	3104492.08	1022607.73	2265.71	353712.4	\$4,580,912.44
August	36787.48	3599652.88	1290180.74	8037.05	383958.37	\$5,318,616.52
September	88736.08	2917396.43	1068085.04	31101.58	687802.92	\$4,793,122.05
October	60068.91	3714682.69	1272714.76	52596.79	576648.58	\$5,676,711.73
November	43958.12	2077038.61	846533.35	58194.12	453913.77	\$3,479,637.97
December	27656.33	1994752.34	618832.13	39264.66	294516.98	\$2,975,022.44
January						
February						
March						
April						
May						
June						
TOTAL	355,041.44	17,408,015.03	6,118,953.75	191,459.91	2,750,553.02	\$26,824,023.15

PRIOR SERVICE ACTIVITY
October 1, 2018 through December 31, 2018

Legacy State:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	5	34	\$ 235,877
	Military	-	-	-
	Redeposit	2	10	\$ 45,360
	Totals	7	43	\$ 281,237

Legacy Teachers:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	10	13	\$ 59,477
	Military	-	-	-
	Redeposit	11	39	\$ 188,851
	Totals	21	52	\$ 248,328

Legacy Higher Education:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	19	105	\$ 1,447,581
	Military	-	-	-
	Redeposit	2	3	13,694
	Totals	21	108	\$ 1,461,275

Legacy Political Subdivisions:	Type of Service	No of Members	Years of Service	Amount
	Backpayment	45	25	\$ 53,344
	Military	-	-	\$ -
	Redeposit	10	47	\$ 123,136
	Totals	55	71	\$ 176,480

Hybrid Higher Education:	Type of Service	No of Members	Years of Service	Amount
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Backpayment	1	2	\$ 5,100
Military	-	-	\$ -
Redeposit	0	0	\$ -
Totals	1	2	\$ 5,100

Hybrid Teachers:

Type of Service	No of Members	Years of Service	Amount
Backpayment	2	2	\$ 7,236
Military	-	-	\$ -
Redeposit	1	3	\$ 8,636
Totals	3	6	\$ 15,872

Hybrid Political Subdivisions:

Type of Service	No of Members	Years of Service	Amount
Backpayment	2	7	\$ 16,754
Military	-	-	\$ -
Redeposit	0	0	\$ -
Totals	2	7	\$ 16,754

Hybrid State:

Type of Service	No of Members	Years of Service	Amount
Backpayment	1	4	\$ 21,902
Military	-	-	\$ -
Redeposit	0	0	\$ -
Totals	1	4	\$ 21,902

Grand Totals:

Type of Service	No of Members	Years of Service	Amount
Backpayment	85	191	\$ 1,847,271
Military	-	-	-
Redeposit	26	101	379,677
Totals	111	292	\$ 2,226,948

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DISABILITY RETIREMENT REPORT

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Disability Statistical Report

Second Quarter 18-19

Disability Applications Received	October	19
	November	19
	December	<u>12</u>
	TOTAL	50
Initial Claims Approved	October	13
	November	08
	December	<u>20</u>
	TOTAL	41
Initial Claims Disapproved	October	03
	November	03
	December	<u>07</u>
	TOTAL	13
Initial Claims Approved after Reconsideration		04
Initial Claims Disapproved after Reconsideration		03
Re-Evaluation Claims Approved		41
Re-Evaluation claims Disapproved		02

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**APPROVED FOR DISABILITY
SECOND QUARTER
2018-2019**

Type	Re-E	Re-C	Age	Employer	Position	SVC	AFC	OPT	MO. BEN	DISABILITY SUMMARY
ORD.	NO	NO	55	POL SUB	INVESTIGATOR	19	\$56,325	B	\$1,221	STROKE WITH RIGHT UPPER AND LOWER WEAKNESS
ORD.	YES	YES	41	STATE	DR. JANOVICH	12	\$32,383	REG MAX	\$513	MVA/ C7 FRACTURE/ HYPERTENSION/ NERVE DAMAGE
ORD.	NO	NO	57	TEACHER	TEACHER	25	DECEASED	C	N/A	BREAST CANCER W/ METASTATIC BRAIN CANCER
SS-ORD	NO	NO	51	STATE	FOREMAN - CUSTO	15	\$21,282	REG MAX	\$502	IMPAIRED MOBILITY, DM2 AND DM NEUROPATHY
ORD.	NO	NO	59	STATE	PROVIDER SERVIC	18	\$ 32,542	REG MAX	\$743	DM WITH RETINOPATHY, LT GREAT TOE AMPUTATION, HTN, CHF & MACULAR DEGENERATION
ORD.	YES	NO	51	STATE	TEACHER	25	\$56,192	B	\$1,555	BIPOLAR/ SEVERE DEPRESSION/ DYSPHORIC MANIA/ GENERALIZED ANXIETY
INACT.	NO	NO	53	TEACHER	TEACHER	13	\$41,952	REG MAX	\$469	BREAST CANCER/ DEPRESSION & ANXIETY/ HYPOTHYROIDISM
SS-ORD	NO	NO	54	STATE	COORDINATOR	14	\$39,208	D	\$846	DEGENERATIVE DISC DISEASE/ LUMBAR SPINAL STENOSIS/ CHRONIC PAIN
SS-ORD	NO	NO	41	STATE	SEC 3	8	\$29,961	REG MAX	\$707	BIPOLAR 1 DISORDER PTSD BORDERLINE PERSONALITY DISORDER
SS-ORD	NO	NO	57	TEACHER	TEACHER	24	\$50,144	REG MAX	\$1,436	LUNG CANCER WITH BRAIN AND BONE METS

**APPROVED FOR DISABILITY
SECOND QUARTER
2018-2019**

ORD.	NO	NO	54	POL SUB	Operator	7	\$27,026	B	\$334	LUMBAR AND CERVICAL FACET ARTHROPATHY & DJD SHOULDER BILAT
SS-ORD	NO	NO	57	POL SUB	CRIMINAL SECRET	7	\$35,371	REG MAX	\$435	TERMINAL COLON CANCER
ORD.	NO	NO	59	POL SUB	TREATMENT OPER	18	\$42,922	C	\$872	PARKINSONS/NEUROPATHY/TREMORS/ DEMENTIA
ORD.	NO	NO	54	STATE	HOUSEKEEPER	11	\$18,176	C	\$332	CARDIOMYOPATHY, CHF
ORD.	NO	NO	57	POL SUB	MAINTENANCE SUP	13	\$42,856	REG MAX	\$835	DM/ NEUROPATHY/ THORACIC PAIN/ MYELOPATHY
ORD.	NO	NO	58	STATE	DIRECTOR	19	\$56,325	B	\$1,221	CHRONIC BRONCHITIS/ ACUTE RESPIRATORY INFECTIONS/ CHRONIC RHINITIS
ORD.	NO	NO	57	POL SUB	EDUCATION ASSIS	7	\$20,342	REG MAX	\$254	OA IN FEET/ OBESITY/ UNSTABLE GAIT
ORD.	NO	NO	41	POL SUB	ELECTRICIAN	6	\$27,433	B	\$607	SACROILIAC JOINT PAIN, DDD OF L5 & C5 SPINE WITH DISC DYSFUNCTION.
ORD.	NO	NO	53	POL SUB	ASSISTANT CHIEF	26	\$58,995	REG MAX	\$1,869	CVA/ DIABETES MELLITUS/ DDD
ORD.	NO	NO	57	STATE	MACHINIST	22	\$43,019	REG MAX	\$1,147	LBP WITH FORAMINAL STENOSIS,DDD, SHOULDER PAIN AND KNEE OA AND MULTI OTHER DX
INACT.	NO	NO	52	POL SUB	MEDICAL OFFICE A	17	\$48,155	B	\$591	COLON CANCER

**APPROVED FOR DISABILITY
SECOND QUARTER
2018-2019**

ORD.	NO	NO	59	STATE	OP TECH 2	12	\$32,383	REG MAX	\$513	CHARCOT JOINT/ DM/ HYPERTENSION
ORD.	NO	YES	50	TEACHER	TEACHER	15	\$49,056	B	\$1,060	LOW BACK PAIN AND PRIMARY OSTEOARTHRITIS OF LEFT KNEE.
SS-ORD	NO	NO	50	STATE	HWY WORKER	7	\$24,646	REG MAX	\$511	CLBP WITH RADICULOPATHY
ORD.	NO	NO	50	POL SUB	SPEC. ED. ASSISTANT	15	\$13,700	B	\$293	SPINAL STENOSIS/ SPINAL FUSION/ RA
INACT.	NO	YES	38	STATE	INFORMATION RES	11	\$45,355	D	\$108	CHRONIC TENSION HEADACHES,GERD, TREMOR AND MULTIPLE OTHER DX.
ORD.	NO	NO	54	POL SUB	TEACHER'S AIDE	9	\$28,744	REG MAX	\$497	FIBROMYALGIA/ OSTEOARTHRITIS/ SPINAL STENOSIS
ORD.	NO	NO	46	TEACHER	TEACHER	21	\$59,085	B	\$1,316	METASTATIC BREAST CANCER
ORD.	NO	YES	56	POL SUB	SBDPP	24	\$25,945	B	\$679	DDD,LUMBAR SPHERE - LATERAL RECESS STENOSIS
ORD.	NO	NO	55	POL SUB	CODES ENFORCEMENT	25	DECEASED		N/A	GASTRIC CANCER STAGE IV TERMINAL
ACC.	NO	NO	60	POL SUB	BUILDING ATTENDANT	1	\$32,285	REG MAX	\$423	DIABETIC RETINOPATHY, NEUROPATHY WITH LE WEAKNESS, GAIT ABNORMALITY
ORD.	NO	YES	54	POL SUB	CAPTAIN	24	\$54,287	REG MAX	\$1,549	ARTHRODESIS, STENOSIS WITH NEUROGENIC CLAUDICATION , LUMBAR RADICULOPATHY

**APPROVED FOR DISABILITY
SECOND QUARTER
2018-2019**

ORD.	NO	NO	56	STATE	BRANCH MANAGER	15	\$36,706	D	\$716	HTN/ COPD/ SVT/ CHRONIC ABDOMINAL PAIN
SS-ORD	NO	NO	56	TEACHER	TEACHER	7	\$54,238	REG MAX	\$742	DDD,LUMBOSACRAL STRAIN AND LEFT KNEE MENISCUS
ORD.	NO	NO	50	TEACHER	TEACHER	12	\$53,350	REG MAX	\$1,260	ANOREXIA NERVOSA, PTSD, MAJOR DEPRESSION
ORD.	NO	NO	56	POL SUB	ADMINISTER OF EL	8	\$56,952	B	\$745	SEVERE DEPRESSION/ ANXIETY/ TRAUMA
ORD.	NO	NO	54	STATE	DIRECTOR	13	\$81,735	REG MAX	\$1,945	ALZHEIMER'S DISEASE (DEMENTIA) WITH BEHAVIORAL DISTURBANCE
ORD.	NO	NO	49	STATE	CASE MANAGER	25	\$46,036	B	\$1,174	
ORD.	NO	NO	55	POL SUB	CAPTAIN - PATROL	23	\$66,786	B	\$1,710	AMPUTATION ON RT FOOT,DM2,NEUROPATHY,DEPRESSION AND OTHER ISSUES.
ORD.	NO	NO	55	STATE	TRANSPORTER	5	\$34,680	B	\$375	RT. BELOW KNEE AMPUTATION/ RT. EYE BLIND/ DIABETES MELLITUS
ORD.	NO	NO	45	STATE	TRICOR FARM SUP	8	\$46,795	REG MAX	\$1,105	L - STENOSIS- S/P 2 LEVEL FUSION OPERATION

**DISAPPROVED FOR DISABILITY
SECOND QUARTER
2018 - 2019**

TYPE	RE-C	AGE	EMPLOYER	POSITION	SRV	DISABILITY SUMMARY	REASON DENIED
ORD.	YES	57	POL SUB	RESOURCE OFFICER	9	LOW BACK PAIN	CAPABLE OF SEDENTARY WORK
ORD.	NO	37	STATE	ELIGIBILITY COUNSELOR 2	11	L5 RADICULOPATHY SECONDARY TO RT RECURRENT DISK HERNIATION. INTERVERTEBRAL DISK	LIMITED TO SEDENTARY WORK
ORD.	NO	55	POL SUB	SPEC ED ASSISTANT	8	TYPE 1 DIABETES/ NEUROPATHY W/ GASTROPARESIS/ ASTHMA	CAPABLE OF MEDIUM WORK
ORD.	NO	43	STATE	LEGAL ASSISTANT	23	IDDM/ POLYNEUROPOTHY/ DEPRESSION & ANXIETY	CAPABLE OF SEDENTARY WORK
ORD.	NO	50	POL SUB	COOK	19	NEUROPATHY/ CARPAL TUNNEL/ CHRONIC PAIN	CAPABLE OF SEDENTARY WORK
ORD.	NO	55	TEACHER	TEACHER	20	LEFT EYE OPTIC NEUROTIS/ NEUROPATHY/ CHRONIC PAIN	LIMITED TO SEDENTARY WORK
ORD.	NO	53	POL SUB	COOK	19	FIBROMYALGIA/ COMMON MIGRAINE/ OBESITY/ DDD	CAPABLE OF MEDIUM WORK
ORD.	NO	48	STATE	CORRECTION SERGANT	18	LUMBAR RADICULOPATHY/ LUMBAR SPONDYLOSIS/ CHRONIC BACK PAIN	PATIENT LIMITED TO SEDENTARY WORK
ORD.	NO	43	POL SUB	PARAMEDIC	5	SACROLITIS, LUMBAR HNP, LUMBAR RADICULOPATHY & LT HERNIATED NUCLEUS PULPOSES.	CAPABLE OF SEDENTARY WORK
ORD.	NO	49	STATE	CASE MANAGER	25	PTSD/ BIPOLAR/ UNCONTROLLED DM	
ACC.	NO	28	STATE	TROOPER	4	LIMITED TO MEDIUM WORK	LIMITED TO MEDIUM WORK

**DISAPPROVED FOR DISABILITY
SECOND QUARTER
2018 - 2019**

ORD.	NO	59	STATE	OP TECH 2	12	DM/ CHARCOT JOINT/ HYPERTENSION/	
TYPE	RE-C	AGE	EMPLOYER	POSITION	SRV	DISABILITY SUMMARY	REASON DENIED
ORD.	NO	46	TEACHER	TEACHER	17	MAJOR DEPRESSION/DM/OBESITY	LIMITED TO SEDENTARY WORK

FINANCIAL STATEMENTS

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

ASSETS

Cash and cash equivalents	\$	224,967,775.42
Cash collateral for securities on loan		3,431,459,126.00
Receivables		
Investment income receivable		196,939,413.14
Derivative instruments receivable		31,957,813.46
Investments sold		173,450,281.67
Total receivables		<u>402,347,508.27</u>
Investments at fair value		
Government securities		9,004,717,542.34
Corporate securities		5,661,375,182.11
Corporate stocks		22,610,443,149.63
Strategic lending		2,428,193,560.08
Private equities		3,308,195,577.00
Real estate		4,018,182,422.40
Total investments		<u>47,031,107,433.56</u>
TOTAL ASSETS		51,089,881,843.25

LIABILITIES AND NET POSITION

LIABILITIES

Investments purchased	277,363,000.72
Other investments payables	31,464,284.46
Derivative instrument payable	24,235,552.74
Cash collateral for securities on loan	3,431,459,126.00
TOTAL LIABILITIES	<u><u>3,764,521,963.92</u></u>

**NET POSITION HELD IN TRUST FOR
POOL PARTICIPANTS**

\$ 47,325,359,879.33

See Accompanying Notes to the Financial Statements

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

OPERATIONS

INVESTMENT INCOME

Net appreciation in fair value of investments	\$ (2,410,189,203.65)
Income on securities	643,312,267.01
Total investment income	<u>(1,766,876,936.64)</u>
Less: investment expense	54,840,699.35
Net income (loss) from investing activities	<u>(1,821,717,635.99)</u>

Securities lending activities

Securities lending income	54,327,498.84
Less: securities lending expense	39,736,102.21
Net income from securities lending activities	<u>14,591,396.63</u>

NET INVESTMENT INCOME	<u>(1,807,126,239.36)</u>
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CAPITAL SHARE TRANSACTIONS

Net shares sold	804,065,888.11
Net shares redeemed	1,392,670,033.28
TOTAL INCREASE FROM CAPITAL SHARE TRANSACTIONS	<u>(588,604,145.17)</u>

NET INCREASE IN FIDUCIARY NET POSITION	<u>(2,395,730,384.53)</u>
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NET POSITION RESTRICTED FOR PARTICIPANTS

NET POSITION, BEGINNING OF PERIOD	<u>\$ 49,721,090,263.86</u>
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NET POSITION, END OF PERIOD	<u><u>\$ 47,325,359,879.33</u></u>
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See Accompanying Notes to the Financial Statements

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Tennessee Retiree Group Trust
Notes to Financial Statements
December 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 December 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 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,

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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.

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%)

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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 December 31, 2018, the TRGT had market value of securities on loan totaling \$3,355,705,794 and received \$3,431,459,126 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 Pooled Investment Fund 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 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.

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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 December 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.

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 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.

UNAUDITED

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 the end of the period.

UNAUDITED

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

ASSETS

Cash and Cash Equivalents	\$7,771,328.17
Cash collateral for securities on loan	\$3,420,060,209.80
Receivables	
Member receivable	2,303,608.26
Employer receivable	69,878.62
	<hr/>
Total receivables	2,373,486.88
	<hr/>
Investments, at fair value	
Tennessee Retiree Group Trust	48,615,957,026.27
Capital Assets (net)	19,677,760.28
	<hr/>
TOTAL ASSETS	52,065,839,811.40
	<hr/>

LIABILITIES

Retiree insurance premium payable	9,308,736.70
Other	63,714.74
Cash collateral for securities on loan	3,420,060,209.80
	<hr/>
TOTAL LIABILITIES	3,429,432,661.24
	<hr/>
NET POSITION RESTRICTED FOR PENSIONS	\$48,636,407,150.16
	<hr/> <hr/>

See Accompanying Notes to the Financial Statements

UNAUDITED

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

ADDITIONS

Contributions

Member contributions	\$140,774,793.94
Employer contributions	465,006,178.67
Other contributions	1,738,992.75
Total contributions	<u>607,519,965.36</u>

Investment income

Total investment income	(334,953,567.97)
Less: Investment expense	(27,124,417.51)
Net income (loss) from investing activities	<u>(362,077,985.48)</u>

Securities lending activities

Securities lending income	60,020,188.87
Less: securities lending expense	(47,358,625.06)
Net income from securities lending activities	<u>12,661,563.81</u>

Net investment income

(349,416,421.67)

TOTAL ADDITIONS

258,103,543.69

DEDUCTIONS

Annuity benefits	1,316,814,814.16
Death benefits	2,407,270.88
Refunds	20,957,029.69
Administrative expenses	4,113,701.73

TOTAL DEDUCTIONS

1,344,292,816.46

NET INCREASE

(1,086,189,272.77)

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

\$49,722,596,422.93

END OF PERIOD

\$48,636,407,150.16

See Accompanying Notes to the Financial Statements

UNAUDITED

Tennessee Consolidated Retirement System
Notes to Financial Statements
December 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 December 31, 2018, the TCRS owns 99.67 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 December 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.

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 \$19.7 million at December 31, 2018 and is being amortized using the straight line method over the ten year estimated life of the system.

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 December 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 period ending December 31, 2018, the required ADC for LEAs was 10.46 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 period ending December 31, 2018, the required ADC for LEAs was 1.94 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, 2018, 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.

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 December 31, 2018, the TCRS owns 99.67 percent of the investments in the TRGT.

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.

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 December 31, 2018, the TRGT had market value of securities on loan totaling \$3,355,705,794 and received \$3,431,459,126 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 Pooled Investment Fund 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 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 December 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.

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 the end of the period.