

THE TENNESSEE CONSOLIDATED RETIREMENT SYSTEM

INVESTMENT POLICY

REVISED AND RESTATED

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I. Definitions

The following definitions are used hereafter with respect to this Investment Policy:

Board – The Board of Trustees of the TCRS.

Buyout – Generally a type of traditional private equity investment that invests in the purchase of all or part of the stock or assets of a privately or publicly owned company through the use of debt and equity.

Cash Equivalents – Debt investments representing highly rated, highly liquid and readily marketable securities with a remaining term to maturity (at the time of purchase) of ninety days or less (≤ 90 days), including, but not limited to, commercial paper and discount notes. Debt securities issued by the United States, any agency of the United States federal government or any entity with the express or implied backing of the United States with a remaining term to maturity of three hundred ninety-seven days or less (≤ 397 days) may also be considered Cash Equivalents for purposes of this Investment Policy.

Chief Investment Officer (“CIO”) – The Department of Treasury employee responsible for the investment and oversight of the TCRS assets in accordance with statutory guidelines and the investment policies and strategies established by the Board.

Commingled Investment – A pooled investment vehicle that is overseen by an External Investment Manager. The following types of pooled investment vehicles used for real estate investments may include, but are not limited to: open and closed end funds; private limited partnerships; private limited liability companies; private and public Real Estate Investment Trusts (“REITs”); and group trusts. The TCRS may also participate in secondary offerings or purchase fund interests from other investors in the secondary market.

Core Investments – An industry term that generally means a Traditional Property Type that is well-located, of institutional quality and leased, at the time of acquisition, at a rate of eighty percent or greater ($\geq 80\%$). “Core plus,” as defined by the general real estate industry, may also be considered a Core Investment for purposes of this Investment Policy.

Derivative Instruments – Any agreement, option or instrument, or any series or combinations of an agreement, option or instrument: (i) to make or take delivery of, or assume or relinquish, a specified amount of one (1) or more underlying interests, or to make a cash settlement in lieu thereof; or (ii) that has a price, performance, value or cash flow based primarily upon the actual or expected price, yield, level, performance, value or cash flow of one (1) or more underlying interests. Derivative Instruments include, but are not limited to, options, warrants (not attached to another investment), caps, floors, collars, swaps, security-based swaps, security-based swap agreements, mixed swaps, swaptions, forwards, futures and any other agreements, options or instruments substantially similar thereto, or any series or combinations thereof. Derivative Instruments do not include Collateralized Mortgage Obligations (“CMOs”), Treasury Inflation-Protected Securities (“TIPS”), other asset-backed securities, principal-protected structured securities or floating rate securities.

Direct Investment – A direct ownership or co-ownership in Core Investments or Non-Core Investments (real estate).

Direct Lending – The transfer of funds from the ultimate lender to the ultimate borrower, most often through a third (administrative) party.

Distressed – Generally a type of traditional private equity investment that invests in the debt obligations of under-performing companies in need of operating or financial restructuring and that are typically involved in a turnaround, restructuring, deleveraging or bankruptcy situation.

Distressed Debt – A debt instrument issued by a company that is typically involved in a turnaround, restructuring, deleveraging or bankruptcy situation.

Emerging Market Debt – A debt instrument issued by nations or companies that are in the process of rapid growth and industrialization. Emerging Market Debt is subject to the same screening methodology discussed within this Investment Policy (Section VI.G).

Equity(ies) – Investments representing an equity, ownership interest to include, but not limited to, publicly traded common and preferred stock, Initial Public Offerings (“IPOs”), bonds or any security convertible to stock, equity-focused Investment Companies, publicly traded Real Estate Investment Trusts (“REITs”) and equity Restricted Securities.

External Investment Adviser – An individual or entity duly selected and contractually bound, who/that typically provides asset management services on a non-discretionary basis to the TCRS. Such External Investment Adviser will be appropriately registered, or exempt from registration, under the applicable state and federal securities laws, rules and regulations.

External Investment Manager – An individual or entity, duly selected and contractually bound, who/that typically assumes discretion over a specified portion of the TCRS’s assets. Such External Investment Manager will be appropriately registered, or exempt from registration, under the applicable state and federal securities laws, rules and regulations.

Fixed Income Security(ies) – Investments representing an instrument under which the issuer owes the holder (debt) to include, but not limited to, notes, bonds or other fixed income securities, Mortgage-Backed Securities (“MBS”), Asset-Backed Securities (“ABS”), Collateralized Mortgage Obligations (“CMO”), Commercial Mortgage Backed Securities (“CMBS”), Medium Term Notes (“MTN”), municipal securities, corporate securities, bond-focused Investment Companies and debt Restricted Securities.

General Consultant – An entity or individual, duly selected and contractually bound, with substantial experience in providing advice on and/or consulting services related to the Total Assets based upon its/his/her expertise and analysis of the issues and/or assets under consideration.

Growth Equity – Generally a type of traditional private equity investment that invests in an established company for the purpose of growing its business.

Hedging Transaction – A derivative transaction that is entered into and maintained to manage: (i) the risk of a change in the value, yield, price, cash flow or quantity of assets or liabilities, or a portfolio of assets and/or liabilities; or (ii) the currency exchange rate risk related to assets or liabilities, or a portfolio of assets and/or liabilities.

High Yield Bonds – A debt instrument with a credit rating below Investment Grade.

Income Generation Transaction – A derivative transaction, excluding Hedging Transactions and Replication Transactions, which is entered into to generate income.

Internal Legal Counsel – The Assistant Treasurer for Legal, Compliance and Audit or his/her authorized designee(s) who represent the Department of Treasury.

Investment Advisory Council (“IAC”) – A council consisting of at least five (5) persons, duly qualified and selected, which will review information furnished to it and provide such investment advice to the State Treasurer and Chief Investment Officer as the Investment Advisory Council deems appropriate.

Investment Committee – A committee of the Board comprised of Board members that will assist the Board in fulfilling its responsibilities with respect to the investments of the TCRS.

Investment Companies – An entity, primarily engaged in the business of investing, that issues publicly listed securities. Investment Companies include, but are not limited to publicly listed unit investment trusts (“UITs”), exchange-traded funds (“ETFs”), open-ended mutual funds and close-ended mutual funds.

Investment Grade – Rating description given to debt securities. For purposes of this Investment Policy, Investment Grade for long-term debt securities must be within the four (4) highest tiers (e.g., AAA, AA, A, or BBB) and short-term debt securities must be within the three (3) highest tiers (e.g., A-1, A-2 or A-3); rating modifiers (+, -) should not be considered when determining the tiers. Debt securities issued by the United States, any agency of the United States federal government or any entity with the express or implied backing of the United States shall be considered as holding the highest possible rating.

Investment Guidelines – Policies and procedures that provide operational framework for implementing and monitoring various investment strategies and activities. Investment Guidelines are often drafted by Investment Staff and must be recommended by the Chief Investment Officer and approved by the State Treasurer before becoming effective.

Investment Staff – Each Department of Treasury, Investment Division employee involved in the investment management of the Total Assets.

Legal Advisor – The Attorney General and Reporter or his/her authorized designee(s) who represent the Board in all matters.

Levered and Unlevered Loans – A debt instrument from companies with below Investment Grade credit ratings. Leveraged loans are typically secured with a lien on the company's assets and are generally senior to the company's other debt.

Market Value – Sometimes referred to as aggregate book value or book value, Market Value are determined in accordance with applicable financial reporting requirements. For additional guidance, refer to the TCRS’s Comprehensive Annual Financial Report.

Master Custodian – A bank, savings and loan association or trust company, duly selected and contractually bound, that, at a minimum, holds the assets of and processes securities transactions for the State of Tennessee, Department of Treasury on behalf of the TCRS.

Mezzanine Debt – Placed between debt and equity in a company's capital structure, mezzanine debt is typically a subordinated debt instrument for late-stage venture and mature companies and offers income through a current coupon and equity participation through a warrant.

Non-Core Investments – Broadly defined as all other real estate assets that are not Core Investments. Non-Core Investments include “value-added,” “opportunistic,” “build to core” or “lease to core” investments, as defined by the general real estate industry.

Outside Legal Counsel – Attorney(s) or law firm(s), duly selected and contractually bound, who/that provide legal advice to the TCRS or the Department of Treasury for or on behalf of the TCRS.

Other Opportunities – Generally a type of private equity investment that is designed to capture innovative investment opportunities created by the marketplace that do not fit an existing category.

Real Estate Debt – A debt instrument that is secured by the collateral of specified real estate property.

Replication Transaction – A derivative transaction or combination of derivative transactions, excluding Hedging Transactions, affected either separately or in conjunction with cash market investments included in a portfolio in order to replicate the risks and returns of another authorized transaction, investment or instrument and/or operate as a substitute for cash market transactions.

Resource – Generally a type of traditional private equity investment that invests in commodities or natural resources.

Restricted Securities – Has the same meaning as set forth in Rule 144(a)(3) promulgated under the Securities Act of 1933.

Service Providers – Any external party who/that performs investment-related services for or on behalf of the TCRS, including, but not limited to, the General Consultant, External Investment Advisers, External Investment Managers, Outside Legal Counsel, investment consultants, data providers, data aggregators, securities litigation monitors, etc.

Short-Term Security(ies) – Debt investments representing highly rated, highly liquid and readily marketable securities with a remaining term to maturity (at the time of purchase) of three hundred sixty days or less (≤ 360 days), including, but not limited to, commercial paper, discount notes and short-term United States agency debt.

Structured Credit – Products comprised of tranches of portfolios of credit instruments or exposures, including credit derivatives, usually securitized by various financial assets.

T.C.A. – Tennessee Code Annotated.

TCRS – Tennessee Consolidated Retirement System, which may also be referred to under state law as “retirement system.”

Total Assets – The total plan assets or overall investment portfolio of the TCRS.

Traditional Property Type – Real estate that consists of only office, multifamily (apartment), retail and/or industrial assets.

Venture Capital – Generally a type of traditional private equity investment that invests in the financing of rapidly-growing companies that do not have access to public equity or debt financing.

II. Overview and Authority

A. Introduction

The Tennessee Consolidated Retirement System was established by the General Assembly as of July 1, 1972 for the purpose of providing retirement and other benefits for state employees, teachers, higher education employees, local government employees and employees of other entities authorized to participate.

B. Investment Authority

General administration and responsibility for the proper operation of the TCRS are vested with the TCRS Board of Trustees (“Board”), including the authority for investing and reinvesting the assets of the TCRS. The State Treasurer, a constitutional officer, is the custodian of the funds of the TCRS. The day-to-day administration and operation of the TCRS are primarily delegated to the State Treasurer.

Implementation of the TCRS Investment Policy established by the Board is hereby delegated to the State Treasurer, who shall put such policy into effect. In implementing this Investment Policy, the State Treasurer hereby delegates certain responsibilities to the Chief Investment Officer and Investment Staff, including the power to invest and reinvest the TCRS’s assets in accordance with the criteria established by this Investment Policy.

The Chief Investment Officer with the approval of the State Treasurer may, through written Investment Guidelines, provide additional investment criteria or guidance.

C. Fiduciary Standard

All assets of the TCRS shall be invested and managed solely in the interest of the TCRS’s beneficiaries and in a manner consistent with T.C.A. §35-14-107, the prudent investor rule pursuant to T.C.A. §35-14-103 and the standard of care pursuant to T.C.A. §35-14-104. Furthermore, the delegation of investment and management functions shall be carried out in accordance with T.C.A. §35-14-111. Notwithstanding the foregoing, and in accordance with T.C.A. §8-37-104, the assets of the TCRS shall be invested subject to the criteria further established by the Board through this Investment Policy, as may be amended from time to time.

D. Scope

The Investment Policy is binding on all persons and entities with authority over the TCRS’s assets, including, but not limited to, the Board, Investment Staff, External Investment Managers, External Investment Advisers, General Consultant, Service Providers, Master Custodian and any other person who or entity that may have a fiduciary relationship with the TCRS.

III. Objective

The purpose of this Investment Policy is to support the TCRS's primary investment objective by:

- Outlining the distinct roles and responsibilities of the Board, Investment Staff and Service Providers;
- Establishing formalized benchmarks to measure and evaluate the performance results of the Total Assets;
- Setting forth the additional investment criteria, which the Board determines to be prudent in consideration of the purposes, terms, distribution requirements and other circumstances of the TCRS and in the best interest of the beneficiaries;
- Communicating the Investment Policy, as approved by the Board, to the Investment Staff, External Investment Managers, External Investment Advisers, General Consultant, Service Providers, Master Custodian and any other person who or entity that may have a fiduciary relationship with the TCRS; and
- Functioning as a supervisory tool, guiding the ongoing oversight of the Total Assets.

IV. Roles and Responsibilities

In addition to the responsibilities described below and throughout this Investment Policy, Service Providers, as well as any other person who or entity that may have a fiduciary relationship with the TCRS, may have additional duties and responsibilities outlined within federal and state laws, rules and regulations; executed contracts or agreements; or as dictated by standard business or industry practices.

A. Board of Trustees

- 1) Adopt an Investment Policy that establishes the additional investment criteria, which the Board determines to be prudent in consideration of the purposes, terms, distribution requirements and other circumstances of the TCRS;
- 2) Delegate investment and management functions that a prudent trustee of comparable skills would properly delegate under the circumstances;
- 3) Review and, if applicable, authorize the use of Service Providers or the processes employed by Investment Staff;
- 4) Evaluate the investment performance of the Total Assets through reports supplied by the State Treasurer, Chief Investment Officer, Investment Staff and Service Providers; and
- 5) Periodically review the actions taken by delegates in order to monitor performance and compliance with the terms of the delegation.

B. Investment Advisory Council

- 1) Review information furnished to the Investment Advisory Council; and
- 2) Provide such investment advice to the State Treasurer and Chief Investment Officer as the Investment Advisory Council deems appropriate.

C. Investment Committee

- 1) Evaluate the investment performance of the traditional private equity, strategic lending and real estate portfolios, through reports supplied by the State Treasurer, Chief Investment Officer, Investment Staff and Service Providers;
- 2) Approve private equity, strategic lending and real estate commitments or transactions that equal or exceed seventy-five million dollars (\geq \$75,000,000) (for an acquisition or disposition of a Direct Investment the seventy-five million dollar-threshold is based upon the equity investment net of any leverage (debt) used or acquired by the TCRS); and
- 3) Review other information that may be furnished to the Investment Committee and, as applicable, provide assistance to the Board, State Treasurer and Chief Investment Officer.

D. State Treasurer

- 1) Implement the Investment Policy, as approved by the Board;
- 2) Operate with a duty of undivided loyalty, investing and managing the TCRS's assets solely in the interest of the beneficiaries;
- 3) Delegate investment and management functions that a prudent trustee of comparable skills would properly delegate under the circumstances;
- 4) Review and, as applicable, authorize the use of Service Providers and the employment of Investment Staff;
- 5) Evaluate and, as applicable, approve the processes employed and procedures established by Investment Staff;
- 6) Evaluate the investment performance of the Total Assets through reports supplied by the Chief Investment Officer, Investment Staff and Service Providers;
- 7) Negotiate and execute, with the advice and counsel of the Legal Advisor, Internal Legal Counsel and/or Outside Legal Counsel, as applicable, all contracts, agreements, forms and memoranda of understanding deemed necessary or desirable for the efficient administration of the TCRS's assets;
- 8) Monitor the Total Assets' compliance with this Investment Policy and applicable federal and state laws, rules and regulations; and
- 9) Take actions that are deemed essential to protect the assets of the TCRS with any emergency actions being promptly reported to the Board.

E. Chief Investment Officer

- 1) Assume executive responsibility and authority, as delegated by the State Treasurer, for the ongoing evaluation and management of the Total Assets, ensuring compliance with the Investment Policy and such other Investment Guidelines, policies, procedures, internal controls, laws, rules and regulations that may apply;
- 2) Operate with a duty of undivided loyalty, investing and managing the TCRS's assets solely in the interest of the beneficiaries;
- 3) Undertake the necessary authority to effectively manage and supervise the Investment Staff;

- 4) Delegate investment and management functions to Investment Staff that a prudent trustee of comparable skills would properly delegate under the circumstances;
- 5) Review and, as applicable, recommend the use of Service Providers, General Consultant, External Investment Managers and External Investment Advisers and the employment of Investment Staff;
- 6) Report to and consult with the State Treasurer and/or his designee on administrative, organizational and investment activities;
- 7) Collaborate, as applicable, with the Investment Committee, Investment Advisory Council, Investment Staff and Service Providers on development and implementation of appropriate investment strategies, policies, procedures and Investment Guidelines;
- 8) Prepare and submit reports, as required, to document investment activities; and
- 9) Notify the State Treasurer of situations that merit the Board's attention.

F. Investment Staff

- 1) Assume fiduciary responsibility and authority, as delegated by the State Treasurer and Chief Investment Officer, for the Investment Staff member's role in the ongoing evaluation and management of the Total Assets;
- 2) Utilize special skills and expertise in an effort to accomplish the primary objective of the Total Assets, as stated in the Investment Policy;
- 3) Operate with a duty of undivided loyalty, investing and managing the TCRS's assets solely in the interest of the beneficiaries;
- 4) Source and evaluate prospective investments on an as-needed basis;
- 5) Ensure compliance with the Investment Policy and such other Investment Guidelines, policies, procedures, internal controls, laws, rules and regulations that may apply;
- 6) Assist the State Treasurer, or his designee, and Chief Investment Officer with respect to any matters related to the TCRS's assets;
- 7) Prepare and submit reports, as required, to document investment activities; and
- 8) Notify the State Treasurer of situations that merit his attention.

G. General Consultant

- 1) Provide a third-party perspective and oversight to applicable portfolios;
- 2) Assess the TCRS's Investment Policy and applicable Investment Guidelines, policies and procedures;
- 3) Assist with developing and implementing Investment Guidelines, policies, procedures and investment strategies;
- 4) Prepare and submit relevant, reliable and timely research, performance reports and objective advice as required or as needed by the Board, State Treasurer, Chief Investment Officer or Investment Staff;
- 5) Source and evaluate prospective investments on an as-needed basis; and
- 6) Support the Investment Staff with respect to any matters related to applicable portfolios.

V. Governing Principles

The Board has adopted a set of governing principles for the oversight of the Total Assets. Those principles are as follows:

A. Primary Investment Objective

The primary investment objective of the Total Assets is to establish a stable, diversified investment portfolio that, in the long-term, will meet or exceed the assumed actuarial rate of return, as adopted by the Board, in order to provide sufficient liquidity to pay beneficiaries in a timely manner.

B. Authorized Asset Classes and Investment Activities

The Board, in accordance with T.C.A. §8-37-101 et. seq., hereby empowers the State Treasurer and Investment Staff to invest and reinvest the TCRS's assets in the following asset-classes and investment activities, subject to all the terms, conditions, limitations and restrictions imposed, as applicable, by this Investment Policy and other Investment Guidelines, policies, procedures, internal controls, laws, rules and regulations that may apply:

- Equities;
- Fixed Income Securities
- Short-Term Securities;
- Private equity;
- Real estate;
- Cash and Cash Equivalents;
- Canadian securities;
- International securities;
- Canadian and international currency;
- Derivative Instruments;
- Securities lending;
- Investment Companies; and
- Standby note purchaser.

C. Asset Allocation Ranges

Based on input from the Chief Investment Officer, Investment Staff and General Consultant, the Board hereby establishes the following strategic asset allocation ranges:

<u>Asset Classes</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Statutory Limit</u>
Domestic Equity	25%	50%	75%
International Equity	5%	25%	
Emerging Markets Equity	0%	10%	
Domestic Fixed Income Securities	20%	60%	75%
Short-Term Securities	0%	10%	
Inflation Indexed Bonds	0%	15%	
International Fixed Income Securities	0%	10%	40%
Private Equity	0%	20%	
Real Estate	0%	20%	
Cash and Cash Equivalents	0%	10%	

For purposes of the above table: domestic includes United States and Canada; emerging market is a subset of international; and private equity includes traditional and strategic lending. Additional statutory and Investment Policy limitations may apply.

D. Asset Allocation Targets

Based on input from the Chief Investment Officer, Investment Staff and General Consultant, the Board hereby establishes the following interim and strategic asset allocation targets:

<u>Portfolio</u>	<u>Prior Policy Target</u>	<u>Interim Target</u>	<u>Strategic Target</u>
Equity – United States	33%	31%	31%
Equity – Canadian	4%	2%	2%
Equity – International Developed Markets	13%	13%	12%
Equity – Emerging Markets	5%	4%	4%
Domestic Fixed Income/Short-Term Securities	25%	25%	20%
Inflation Indexed Bonds	4%	0%	0%
Private Equity – Traditional	3%	7%	10%
Private Equity – Strategic Lending	5%	7%	10%
Real Estate	7%	10%	10%
Cash and Cash Equivalents	1%	1%	1%

The Board acknowledges that the interim targets are intended to be in effect for a three- to five-year period in order to transition to the long-term, strategic targets. As such, the interim targets will become effective **January 1, 2017**.

E. Benchmarks

Based on input from the Chief Investment Officer, Investment Staff and General Consultant, the Board has determined that the investment performance for the Total Assets and each component portfolio will be compared with the following respective benchmark indices:

<u>Portfolio</u>	<u>Benchmark Index</u>
Equity – United States	S&P 1500
Equity – Canadian	S&P / TSX 60 Index
Equity – International Developed Markets	MSCI EAFE Investable Market Index (IMI)
Equity – Emerging Markets	MSCI Emerging Markets Index*
Domestic Fixed Income and Short-Term Securities	Citigroup Large Pension Fund Index
Inflation Indexed Bonds	Citigroup TIPS Index
Private Equity – Traditional	S&P 500 + 3%
Private Equity – Strategic Lending	Custom Index: 50% Barclay's High Yield 2% Issuer Capped Index + 50% Credit Suisse Leveraged Loan Index
Real Estate	NCREIF Property Index
Cash and Cash Equivalents	91-Day United States Treasury Bills

*The equity emerging markets benchmark index will be adjusted to exclude countries based on the screening methodology, as further discussed below in Section VI.G.

The Total Assets' and each component portfolio's (investment) performance will be calculated in accordance with the performance reporting procedures established by the Investment Staff and approved by the State Treasurer.

VI. Additional Investment Criteria

The Board, in accordance with T.C.A. §8-37-104, hereby imposes the following investment terms, conditions, limitations and restrictions. The disqualification of an investment under one (1) section of this Investment Policy does not prevent its qualification in whole or in part under another section.

A. Equity

No Equity will be purchased with the purpose or with the effect of changing or influencing the control of the issuer. Additionally, no more than four and ninety-nine one hundredths percent ($\leq 4.99\%$) of a voting class of a company's equity securities registered under Section 12 of the Securities Exchange Act of 1934 (i.e., outstanding shares) shall be, directly or indirectly, acquired.

B. Fixed Income Securities and Short-Term Securities

Only Fixed Income Securities and Short-Term Securities rated Investment Grade by one of the designated Nationally Recognized Statistical Rating Organizations ("NRSROs") shall be purchased. This rating restriction does not apply to bond-focused Investment Companies or debt Restricted Securities. Additionally, there is no requirement to divest of an asset if it is downgraded below Investment Grade.

The TCRS may transact in when-issued, To Be Announced ("TBA"), dollar roll and other transactions that result or may result in delayed delivery for the purchase or sale of Fixed Income Securities. Cash and obligations of the United States government or any of its agencies may be used to meet variation margin or collateral requirements.

C. Private Equity

The private equity asset class is categorized into two component portfolios: traditional and strategic lending. Traditional private equity investments may include, but shall not be limited to, the following types of investments: Venture Capital; Buyout; Distressed; Growth Equity; Resource; and Other Opportunities. Strategic lending investments may include, but shall not be limited to, the following types of investments: High Yield Bonds; Levered and Unlevered Loans; Emerging Market Debt; Distressed Debt; Mezzanine Debt; Direct Lending; Structured Credit; Real Estate Debt; and Other Opportunities.

1. Disclosure Process

Any TCRS employee or Board member who has a role in determining whether the TCRS assets should be invested in a private equity investment and who is directly solicited by any person or entity on a specific private equity investment proposal must disclose such to the Investment Staff.

For purposes of this disclosure process, "directly solicited" means direct personal contact by person(s) or entity(ies) intending to solicit funding for a specific private equity fund or transaction. This direct contact will typically include a discussion on a particular investment, the merits of that investment and detailed

documentation supporting the investment. Casual meetings and telephone calls of a general nature are not deemed to be a direct solicitation for purpose of this disclosure process.

The names of any person(s) or entity(ies) disclosed to Investment Staff pursuant to this disclosure process will be recorded by the Investment Staff and reported to the audit committee of the Board on a quarterly basis.

2. Selection, Approval and Monitoring

The process for selecting and approving traditional private equity and strategic lending investments will be outlined within the Traditional Private Equity and Strategic Lending Investment Guidelines. At a minimum, such Investment Guidelines must detail the introduction, due diligence, recommendation, approval, legal review, closing, and monitoring processes.

The Board recognizes that various factors and differing standards should be used in evaluating and selecting traditional private equity and strategic lending investments and relies on Investment Staff and the respective investment consultant to use reasonable judgment in proactively investigating proposed traditional private equity and strategic lending investments. Prior to consideration of a traditional private equity or strategic lending investment, an independent third-party advisor selected by the TCRS (i.e., External Investment Advisor, External Investment Manager, General Consultant, investment consultant, etc.) must determine that the proposed investment complies with the factors and standards as established within this Investment Policy and any applicable Investment Guidelines.

3. Open Records Exception

Traditional private equity or strategic lending investment records shall be open to public inspection in accordance with and pursuant to T.C.A. §8-37-104(a)(10)(B).

4. Holding Entities

The Board authorizes the State Treasurer and Investment Staff to create holding entities, to the extent permitted by law, on behalf of the TCRS for the purpose of acquiring, holding title to and collecting income from traditional private equity or strategic lending investments. The Board also authorizes the transfer of a traditional private equity or strategic lending investment from direct ownership to a title holding entity on behalf of the TCRS (or the converse) during the course of a holding period of the traditional private equity or strategic lending investment, if deemed prudent.

D. Real Estate

Acquisitions of real estate may be made in Direct Investments or Commingled Investments provided that:

- No Direct Investment may be located in the state of Tennessee; and
- No Direct Investment shall exceed one percent (< 1%) of the Market Value of the Total Assets.

The process for selecting and approving real estate investments will be outlined within the Real Estate Investment Guidelines. At a minimum, such Investment Guidelines must detail the introduction, due diligence, recommendation, approval, legal review, closing and monitoring processes.

The Board authorizes the State Treasurer and Investment Staff to create entities, to the extent permitted by law, on behalf of the TCRS for the purpose of acquiring, holding title to, and collecting income from real property. The Board also authorizes the transfer of real estate property from direct ownership to a title holding entity on behalf of the TCRS (or the converse) during the course of a holding period of the real estate investment.

E. Cash and Cash Equivalents

Cash that cannot be invested immediately, or that is needed for operations, should be actively managed through the use of cash and Cash Equivalents to obtain the best return available. Cash may also be invested in short-term, open-end mutual funds under the contractual arrangement with the Master Custodian or invested in the State Pooled Investment Fund.

Cash Equivalents must be rated within the highest tier (e.g., A-1) by at least two (≥ 2) of the designated NRSROs; rating modifiers (+, -) should not be considered when determining the tiers.

The TCRS shall invest not more than one hundred million dollars ($\leq \$100,000,000$) in Cash Equivalents issued by any one issuer, excluding Cash Equivalents

- Issued by the United States, any agency of the United States federal government or any entity with the express or implied backing of the United States; or
- That matures on the next business day.

For purposes of this section, “business day” shall mean any day on which (i) the United States securities exchanges, (ii) the Master Custodian and (iii) the State of Tennessee, Department of Treasury are open for regular business activity.

F. Canadian Securities

The TCRS may invest in publicly traded, Canadian securities that are otherwise of the same kinds, classes and investment grades otherwise eligible for investment.

G. International Securities

The TCRS may invest in publicly traded, international securities that are otherwise of the same kinds, classes and investment grades otherwise eligible for investment.

The Board hereby authorizes up to twenty-five percent ($\leq 25\%$) of the Total Assets may be invested in international securities, up to ten percent ($\leq 10\%$) of which may be invested in emerging markets.

The Board hereby determines that the following international countries are permissible:

- International countries included in the Morgan Stanley Capital International (“MSCI”) EAFE Investable Market Index (“IMI”), as amended from time to time (i.e., international developed markets); and
- International countries included in the MSCI Emerging Markets (“EM”) Index, as amended from time to time (i.e., emerging markets).

Suitability of investing in such emerging markets countries shall be further subject to a screening methodology reviewed by the TCRS’s General Consultant, recommended by the Chief Investment Officer and approved by the State Treasurer.

For purposes of the TCRS’s international securities investments, a security’s country classification will be determined, at the time of acquisition, using the following criteria:

- Market in which the issuer conducts its primary business (“Country Classification”);
- Issuer’s management location, country of primary listing, country of revenue and reporting currency (“Country of Risk”);
- Country in which the issuer is legally established (“Country of Incorporation”); and
- Investment’s geographical focus (“Geo Focus”).

The issuer’s parent and ultimate parent entity(ies) may also be evaluated in order to determine a security’s country classification.

H. Canadian and International Currency

Canadian and international currency transactions are permitted as necessary to facilitate the settlement of Canadian and international securities transactions and to mitigate currency risk. The TCRS may engage in “bona fide spot foreign exchange transactions,” as defined by the United States Commodities Futures Trading Commission (“CFTC”), Hedging Transactions, Income Generation Transactions or Replication Transactions involving currencies of Canada and those international countries authorized pursuant to this Investment Policy. Cash and obligations of the United States government or any of its agencies may be used to meet variation margin or collateral requirements related to currency transactions.

Hedging Transactions, Income Generation Transactions and Replication Transactions will be executed only with registered swap dealers.

I. Derivative Instruments

The TCRS may purchase or sell stock index futures. Stock index futures contracts shall

- Not be utilized for purposes of “speculative leveraging” as defined in T.C.A. §8-37-104(a)(7);
- Be classified by and included in the asset allocation ranges of the domestic and international equity portfolios;
- Be measured in their notional principal or notional equivalent amount; and
- Not exceed ten percent ($\leq 10\%$) of the Market Value of the Total Assets.

Cash and obligations of the United States government or any of its agencies may be used to meet variation margin or collateral requirements related to stock index futures.

Additionally, the TCRS may engage in Hedging Transactions, Income Generation Transactions or Replication Transactions involving Derivative Instruments under the following conditions:

- Derivative Instruments will be measured in their notional principal or notional equivalent amount;
- Derivative Instruments, excluding currency Derivative Instruments, shall not exceed twenty percent ($\leq 20\%$) of the Market Value of the Total Assets; and
- Cash and obligations of the United States government or any of its agencies may be used to meet variation margin or collateral requirements.

Hedging Transactions, Income Generation Transactions and Replication Transactions shall be executed only with registered swap dealers.

J. Securities Lending

The TCRS may loan its securities for a fee, provided that:

- The total market value of securities on loan does not exceed thirty percent ($< 30\%$) of the Market Value of the Total Assets; and
- Each loan is collateralized in accordance with this Investment Policy.

Only the following types of financial instruments will be acceptable collateral for purposes of securities lending:

- Bonds, notes and treasury bills of the United States or other obligations guaranteed as to principal and interest by the United States government or any of its agencies;
- Obligations guaranteed as to principal and interest by the United States government or United States sponsored corporations or enterprises; and
- Cash.

Collateral will be marked-to-market, each business day, to ensure that on any business day the market value, plus accrued but unpaid rebates and, in the case of debt securities, accrued but unpaid interest, of the collateral held in respect to a securities lending transaction is not less than:

- 102% ($\geq 102\%$) of the aggregate market value of the loaned securities for domestic securities and international securities that are denominated in the same currency as the collateral provided by the borrower;

- 105% ($\geq 105\%$) of the aggregate market value of the loaned securities for international securities that are not denominated in the same currency as the collateral provided by the borrower; or
- 100% ($\geq 100\%$) for cash collateral.

Cash received as collateral may be invested by or on behalf of the TCRS in any investment instrument in which the TCRS's assets may be directly invested. Such cash may also be invested in short-term investment funds, provided the portfolio of such funds contains only those investment instruments in which the TCRS's assets may be directly invested.

K. Standby Note Purchaser

The TCRS may enter into contracts to serve as a standby note purchaser for the Tennessee State School Bond Authority, the Tennessee State Funding Board and the Tennessee Local Development Authority, provided said contracts contain the following provisions:

- The TCRS receives an annual commission, representing a fair market value fee for serving as the standby note purchaser; such fee shall be reviewed annually and, as appropriate, adjusted; and
- If called upon to purchase such notes, the TCRS shall receive a market rate of return exceeding the market rate for short-term investments.

L. Investment Companies

The TCRS may invest in shares of publicly listed Investment Companies. Investment Companies shall be classified by and subject to the asset allocation range of the underlying asset class type (e.g. equity-focused ETF included in the equity allocation calculation, etc.).

VII. Risk Management

A. Rebalancing and Transitioning

The Total Assets should be actively managed in an effort to attain, within acceptable risk limitations, the TCRS's primary investment objective. As such, the Chief Investment Officer and Investment Staff shall have the ability to make tactical shifts in asset allocations as deemed appropriate to increase risk-adjusted returns, so long as such changes are within the approved asset allocation ranges as stated within this Investment Policy.

Additionally, the Board recognizes that one or more component portfolio may experience a period of transition due to, for example, an initial funding phase, rebalancing or strategy shift. The Board acknowledges that during a transition period it may be necessary to analyze assets based upon terminal value and not relative to a benchmark.

B. Percentage Limitations

In determining compliance with the percentage limitations stated within this Investment Policy, the Total Assets will be valued at Market Value. Accordingly, an investment may be made on any given day provided that such investment does not cause any applicable limitation prescribed in this Investment Policy to be exceeded on such day.

C. Designated Nationally Recognized Statistical Rating Organizations (“NRSROs”)

The credit ratings of any credit rating agency that is registered with the Securities and Exchange Commission (“SEC”) as a NRSRO will be deemed sufficiently reliable for use to determine a security’s investment grade and eligibility under this Investment Policy.

D. Trading, Brokerage and Research

Best execution, cost and benefits that serve the exclusive interest of the beneficiaries are the overriding principles in determining the trading and brokerage counterparty to be used in any transaction.

The State Treasurer and Investment Staff are hereby authorized to transact with duly selected trading and brokerage counterparties. Selection of trading and brokerage counterparties shall be subject to the qualifications and processes established by the Investment Staff and approved by the State Treasurer.

The State Treasurer and Investment Staff are hereby authorized to enter into client commission agreements or commission sharing or rebate arrangements in order to obtain research services permitted under the safe harbor protections of Section 28(e) of the Securities and Exchange Act of 1934.

E. Service Providers

The State Treasurer, in consultation with the Chief Investment Officer and Internal Legal Counsel, is authorized to contract for investment management services, personal services, professional services and consultant services as necessary and in the best interest of the TCRS. Such services include, but are not limited to, those provided by a General Consultant, External Investment Advisers, External Investment Managers, Outside Legal Counsel, investment consultants, data providers, data aggregators, securities litigation monitors, proxy advisors, investment and performance analytics, trading and execution platforms, research providers, etc. The Board delegates to the State Treasurer, in consultation with the Chief Investment Officer and Internal Legal Counsel, the responsibility to determine the procurement method for and duties and responsibilities of such Service Providers.

Pursuant to, and as defined in, T.C.A. §8-37-113 the State Treasurer shall endeavor to use “emerging investment managers” to the greatest extent feasible within the bounds of financial and fiduciary prudence. Use of “emerging investment managers” shall be subject to the qualifications established by the Investment Staff and approved by the State Treasurer.

F. Legal, Compliance and Audit

The State Treasurer, in consultation with Internal Legal Counsel and with the approval of the Legal Advisor, has primary responsibility for the retention of Outside Legal Counsel. The State Treasurer and Internal Legal Counsel shall consult, as needed and applicable, with the Legal Advisor and/or Outside Legal Counsel. The State Treasurer, or his designee(s), has the authority to negotiate and execute, with the advice and counsel of the Legal Advisor, Internal Legal Counsel and/or Outside Legal Counsel, as applicable, all contracts, agreements, forms and

memoranda of understanding deemed necessary or desirable for the efficient administration of the TCRS's assets.

The Chief Investment Officer and Investment Staff will collaborate with the Department of Treasury compliance staff to ensure efficient and effective development and administration of a compliance program that is reasonably designed to prevent, detect and, if necessary, remedy violations of the laws, rules, regulations and policies applicable to the Department of Treasury Investment Division's investment and securities activities.

To aid in the safeguarding of the TCRS's assets, the Department of Treasury internal audit staff will periodically evaluate risk control areas as to their adequacy, efficiency and effectiveness. Additionally, the State Treasurer shall ensure that critical investment, accounting and legal, compliance and audit functions are segregated within the Department of Treasury.

G. Investment Guidelines, Policies and Procedures

The Investment Policy includes references to Investment Guidelines, policies and procedures established and implemented by the State Treasurer and Investment Staff. The Board deems these Investment Guidelines, policies and procedures as integral components to the implementation and oversight of the TCRS's Investment Policy. At a minimum, the State Treasurer shall implement detailed Investment Guidelines for Derivative Instruments, traditional private equity, strategic lending, real estate and securities lending. Additionally, the State Treasurer shall implement written policies and procedures related to proxy voting, trade management and supervision, evaluation of research services, the use of placement agents, conflicts of interest, and performance reporting.

VIII. Monitoring and Reporting

A. Quarterly

The State Treasurer shall report quarterly to the Council on Pensions and Insurance any holdings in securities issued by companies that have substantial current operations in nations determined by the United States Department of State to be state-sponsors of terrorism.

The State Treasurer shall also report quarterly to the Council on Pensions and Insurance the investments in emerging market countries.

The Chief Investment Officer shall provide a detailed, written review of the investment activity at the quarterly Board meetings. Pursuant to the private equity disclosure process (Section VI.C.1), the Investment Staff will report the required information to the audit committee of the Board on a quarterly basis.

B. Periodically

The Chief Investment Officer shall provide a detailed, written report of the investment activity, including, but not limited to, presenting all receipts, disbursements and changes in the assets and liabilities, at all Investment Advisory Council meetings.

The State Treasurer, Chief Investment Officer, Investment Staff and Service Providers, shall provide other reports as requested or as needed by the Board or State Treasurer.

C. Annually

The Board shall publish an annual report. The Chief Investment Officer, Investment Staff and, as needed, Service Providers shall assist in preparing the investment-related portions of the annual report.

The State Treasurer shall prepare an annual report of investment activity to the Council on Pensions and Insurance. Such report will consist of the General Consultant's report and a summary of the closing balances of investments in emerging market countries.

The State Treasurer, in accordance with T.C.A. §8-37-113(b) shall submit an annual statement to the general assembly regarding the use of emerging investment managers.

At least annually, the General Consultant shall review the TCRS's Investment Policy and applicable Investment Guidelines, policies and procedures and provide its recommendations to the State Treasurer and Chief Investment Officer for consideration.

IX. Policy Interpretation

The Board, State Treasurer, Investment Staff and Service Providers are required to comply with all applicable federal and state laws, rules and regulations. The Investment Policy may reference or restate applicable laws, rules and regulations, or portions thereof, for convenience; however, in the event of any conflict between the law and this Investment Policy, the law prevails. Each fiduciary to the TCRS is ultimately responsible for compliance with applicable laws, rules and regulations.

The Board hereby authorizes the State Treasurer to take, for and on behalf of the TCRS, all actions necessary to comply with applicable federal and state securities laws, rules and regulations. In implementing such, the State Treasurer may delegate certain responsibilities to the Investment Staff, Department of Treasury staff or Service Providers.

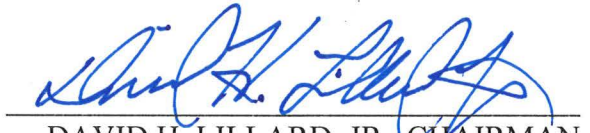
In cases of uncertainty, the State Treasurer is authorized to provide written interpretive guidance and approve in writing, from time to time, variances from the requirements contained within the Investment Policy in furtherance of compliance or as deemed in the best interest of the TCRS's beneficiaries, consistent with both fiduciary standards and the scope of the Investment Policy. Such interpretive guidance or variance shall be reported in writing to the Board at its next meeting and to the Council of Pensions and Insurance within a reasonable time.

X. Approval and Adoption

The Council on Pensions and Insurance hereby approved, as required, the applicable provisions within this revised and restated Investment Policy of the Tennessee Consolidated Retirement System at its meeting held on the 6th day of October, 2016.


RANDY McNALLY, COMMITTEE CHAIR
Council on Pensions and Insurance

The Board of Trustees of the Tennessee Consolidated Retirement System hereby approved and adopted this revised and restated Investment Policy of the Tennessee Consolidated Retirement System at its meeting on the 18th day of November, 2016.


DAVID H. LILLARD, JR., CHAIRMAN
BOARD OF TRUSTEES
Tennessee Consolidated Retirement System