

# Statement of Investment Policy

Amended September 8, 2016

# **Table of Contents**

1.	Introduction	1
2.	Purposes of the Statement of Investment Policy	1
3.	Mission Statement	2
4.	Roles and Responsibilities	2
5.	Investment Goals and Objectives	6
6.	Asset Allocation Policy	7
7.	Rebalancing Policy	8
8.	Investment Structure	9
9.	Liquidity	9
10.	Investment Manager Guidelines	9
11.	Monitoring	10
12.	Exercise of Shareholder Rights	11

#### 1. Introduction

This Statement of Investment Policy was adopted by the Board of Directors of the Tennessee Valley Authority Retirement System (hereinafter "Board of Directors") on December 17, 2010 to guide the Board of Directors in its responsibilities over the assets of The Tennessee Valley Authority Retirement System (hereinafter "Retirement System"), a defined benefit plan covering most annual TVA employees hired prior to July 1, 2014. By resolution of its Board of Directors, the Tennessee Valley Authority (hereinafter "TVA") established the Retirement System on September 6, 1939 and adopted Rules and Regulations for the establishment and administration of the Retirement System (hereinafter "Rules and Regulations"). The assets of the Retirement System are held in the Tennessee Valley Authority Retirement System Master Trust (hereinafter "Master Trust") with The Bank of New York Mellon, the Retirement System's Master Trustee.

The Board of Directors shall administer this Statement of Investment Policy and shall review it periodically to determine if modifications are necessary or desirable. All objectives and policies are in effect until modified by the Board of Directors. This Statement of Investment Policy is subject to and consistent with the Rules and Regulations.

#### 2. Purposes of the Statement of Investment Policy

This statement of investment policy defines the investment objectives and policies for the management and oversight of the Retirement System. It sets forth the objectives of the Retirement System, the strategies to achieve these objectives, procedures for monitoring and control, and the duties and responsibilities of the various entities responsible for Retirement System investments.

This Statement of Investment Policy shall:

- Memorialize the Retirement System's objectives and set forth appropriate and prudent
  policies and guidelines to assist in the achievement of those objectives, while at the same
  time allowing sufficient flexibility to permit the Retirement System to capture attractive
  investment opportunities.
- Provide an investment framework for the Retirement System that sets parameters to ensure prudence and care in the execution of the investment program.
- Establish criteria to evaluate the Retirement System's investment performance.

#### 3. Mission Statement

One of the primary purposes of the Retirement System is to accumulate and preserve assets exclusively for the benefit of the members, retirees and beneficiaries of the Retirement System and for the payment of retirement benefits as defined in the Rules and Regulations. The Retirement System's long-term objectives are to:

- Meet present and future benefit obligations to all members, retirees and beneficiaries under the Retirement System;
- Cover reasonable expenses incurred to provide such benefits, including expenses incurred in the administration of the Retirement System;
- Provide sufficient liquidity to meet such benefit and expense payment requirements on a timely basis;
- Provide a total return that, over the long-term, maximizes the ratio of assets to liabilities by maximizing investment return on assets, at an appropriate level of risk; and
- Adhere to the Rules and Regulations and all laws and regulations applicable to the Retirement System.

#### 4. Roles and Responsibilities

#### General

The current Master Trust with The Bank of New York Mellon was established effective as of February 1, 1988. The Retirement System is a qualified retirement plan under Section 401(a) of the Internal Revenue Code (the "Code"). As such, the Master Trust is a tax-exempt fund pursuant to the Code. However, as a federal governmental plan, the Retirement System is excluded from the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and the requirements of the Code that parallel those contained in ERISA.

#### Board of Directors of the Tennessee Valley Authority Retirement System

The Retirement System is administered by a 7 member Board of Directors pursuant to the Rules and Regulations. The Board of Directors is responsible for performing certain investment fiduciary functions of the Retirement System as set forth in the applicable governing agreements. In their capacity as fiduciaries, the members of the Board of Directors must fulfill their responsibilities in a prudent manner and for the exclusive benefit of the members, retirees and beneficiaries of the Retirement System.

Specifically, the responsibilities of the Board of Directors include the following:

• Comply with the applicable provisions and standards of the Code and any other applicable regulation, and comply with the Rules and Regulations.

- Develop investment policies and strategies for the Retirement System.
- Develop an appropriate allocation policy for the assets of the Retirement System.
- Approve the selection of qualified investment management organizations whose philosophy and approach supports the overall strategy of the Retirement System. These management organizations are expected to fulfill specific roles within the Retirement System's investment structure by executing the investment strategies of the Retirement System.
- Approve the investment guidelines for individual investment manager assignments.
- Monitor and evaluate the results generated by the investment managers in the context of their respective investment guidelines, performance objectives, and market environment
- Take appropriate action if the investment management organization fails to follow investment policy, deviates from the expected role within the investment structure, or fails to perform as expected over a reasonable period of time.
- Fulfill any other responsibilities as provided by the Rules and Regulations.

The Board of Directors may delegate certain of its responsibilities to others, such as the Executive Secretary and Retirement System staff, and may utilize the services of external advisors, such as actuaries, auditors, consultants and legal counsel, to assist in fulfilling its fiduciary responsibilities. The comments and recommendations of such parties will be considered by the Board of Directors in conjunction with other available information for the purpose of making informed and prudent decisions.

#### Executive Secretary / Retirement System Investment Staff

The Executive Secretary and the investment staff will be the primary liaisons between the Board of Directors and the Investment Consultant, the Investment Managers, and the Master Trustee/Custodian. The Board of Directors has delegated to the investment staff the principal responsibility for implementing the investment decisions approved by the Board of Directors as well as overseeing the day-to-day investment and financial operations of the Retirement System. Responsibilities include:

- Work closely with the Board of Directors to oversee and provide direction for the investment strategy for the Retirement System.
- Monitor the Retirement System's investments and investment managers to ensure compliance with investment policies and guidelines.

- Coordinate the investment manager selection, evaluation and retention decisions for the Retirement System's investments.
- Implement the Board of Directors' decisions regarding asset allocation, investment structure, manager selection, and portfolio rebalancing procedures.
- Manage the overall liquidity in the Retirement System assets to ensure timely
  payment of participant benefit payments and plan expenses and the
  investment of employer contributions consistent with established asset
  allocation and portfolio rebalancing policies.
- Assist the Board of Directors in fulfilling its investment responsibilities regarding the Retirement System.
- Assist in the evaluation of the financial condition of the Retirement System as requested by the Board of Directors.

#### **Investment Managers**

The investment managers, as fiduciaries of the Retirement System, assume certain responsibilities. Specifically, the investment managers have discretionary authority to direct the investment of a specific allocation of the Master Trust subject to the parameters set forth in the individual manager guidelines section of this Investment Policy Statement.

The responsibilities of the investment manager are documented in the Investment Management Agreement which is executed upon the appointment of that manager as an Investment Manager of the Retirement System. These responsibilities generally consist of the following:

- Understand and accept the designated role within the Retirement System's investment structure.
- Construct a portfolio of securities that reflects the execution of a specific investment strategy.
- Adhere to the Investment Management Agreement including the investment guidelines.
- Agree to be held to the standard of care and diligence which applies to a corporate trustee of a pension trust governed by the laws of the State of New York or the state of residence of the Manager, or an equivalent standard of care such as the degree of care and diligence under ERISA.
- Comply with all applicable laws.

#### **Investment Consultant**

The Board of Directors has retained an investment consulting organization (the "Investment Consultant") to assist in the overall strategic investment direction of the Retirement System. The consultant, in recognition of its role as a co-fiduciary of the Retirement System, assumes specific duties. These duties include:

- Assisting the Board of Directors in fulfilling its responsibilities regarding the Retirement System.
- Assisting in the evaluation of the financial condition of the Retirement System as requested by the Board of Directors.
- Recommending appropriate investment strategies based on the financial condition of the Retirement System, including liquidity needs and future funding obligations.
- Recommending the asset allocation, investment structure and strategy (including the investment objectives, policy and guidelines) and qualified investment managers to execute investment strategy.
- Recommending the individual investment objectives, policy and guidelines for each qualified investment manager.
- Monitoring and evaluating the ongoing progress of the Retirement System toward stated investment goals and objectives.
- Recommending appropriate action should an investment strategy or individual investment managers fail to meet expectations.
- Recommending strategy changes in response to material changes in either the financial condition of the Retirement System or the capital market environment.
- Any additional duties as may be provided in the written agreement between the Board of Directors and the Investment Consultant.

#### Trustee / Custodian

The Board of Directors will utilize the services of a master custodian bank that will be responsible for holding and safekeeping Master Trust assets, settling purchases and sales of securities; identifying and collecting income which becomes due and payable on assets held; providing a management information/accounting system; and any other duties outlined in the Trust Agreement between the Board of Directors and Trustee.

#### 5. Investment Goals and Objectives

Investment goals and objectives are designed to provide a broad, general statement of the long-term purpose of the investment program. The assets are invested in a diverse set of strategies and evaluated within the context of a long-term investment horizon, consistent with the time horizon of the Retirement System's liabilities.

The overall goal of the investment program is to ensure solvency of the Retirement System, enabling the payment of pension obligations over time as they come due. As such, the investment decisions will be made solely in the interest of the Retirement System's members, retirees and beneficiaries and for the exclusive purpose of providing vested benefits accrued thereunder.

Retirement System assets will be adequately diversified (in a total-portfolio context) across multiple asset classes so as to minimize the risk of large losses. The goals for each of these asset classes are set forth below.

Short-term fluctuations in value will be considered secondary to long-term results.

#### Total Fund Return Objectives:

- Long-term returns on Retirement System investments, in addition to employer contributions, should satisfy any current funding obligations of the Retirement System and once fully funded, should keep pace with the growth of liabilities.
- The investment performance goal for the Retirement System is to meet or exceed the return of the total fund policy benchmark over a full market cycle, generally measured over three to five years, with a similar level of risk as measured by standard deviation of returns.

The investment policy benchmark is a weighted-average of the allocation targets (to the extent the asset class has been fully allocated) multiplied by the benchmark performance for each asset class approved for the Retirement System. The investment policy benchmark permits the Board of Directors to compare the Retirement System's actual performance to a weighted market index, and to measure the contribution of active investment management and policy implementation.

#### Total Fund Risk Tolerance:

 Based on the present funded status of the Retirement System, a level of risk commensurate with an asset allocation that keeps pace with the growth of liabilities is desired. The level of risk takes into consideration employer contributions. It is the objective of the Board of Directors to reduce the risk level of the Retirement System over time as funded status improves. Specifically, the Board of Directors has adopted a de-risking strategy focused on the volatility of the Retirement System's funded status. The funded status is calculated as the market value of assets divided by the actuarial value of the FAS 87/ASC 715 liabilities. The objective of the de-risking strategy is to reduce the volatility of the funded status of the Retirement System over time. Predetermined steps will be taken to reduce the volatility of the funded status as funded status improves. The Asset Allocation Policy outlined below will be dynamic in nature to achieve the stated objective of reducing the volatility of the funded status over time.

# 6. Asset Allocation Policy

Over the long-term, asset allocation is expected to be the single greatest determinant of investment risk and contributor of investment return to the Retirement System. The Asset Allocation Policy embodies the Board of Director's decisions about what proportions of the Retirement System assets shall be invested in various asset classes.

Based on an asset-liability analysis conducted periodically by the Investment Consultant and the Retirement System's actuaries, and the return objectives, risk tolerance, and liquidity needs of the Retirement System, the following asset allocation policy has been established (see Strategic Asset Allocation Table below). The recommended long-term asset allocation policy is identified by strategic target weights to individual asset classes. In addition, minimum and maximum allocations are provided to serve as guidelines for the range of the asset class weights. The asset classes may fluctuate within the bands established by the minimum and maximum allocation ranges before the Investment Staff must consider reallocating from one asset class to another.

The asset allocation policy is designed to be dynamic in nature and responsive to changes in the funded status of the Retirement System consistent with the de-risking objective to reduce the volatility of the funded status over time. This asset allocation policy may be reviewed when there is a meaningful change in either the financial condition of the Retirement System, the return objectives, risk tolerance, and liquidity needs of the Retirement System, or a change in capital market conditions.

The dynamic policy predetermines changes to the strategic target asset class weights in response to changes in the funded status of the Retirement System, either through improvement in the asset value, reduction in liability value, or a combination of the two. As the funded status of the Retirement System improves, the target asset allocation will follow the Glide Path below on a forward moving basis. If market conditions cause the funded ratio to fall below the most recently adopted policy from the Glide Path, the policy will not shift backwards along the Glide Path to previous policies, but rather will maintain the newest adopted policy until the funded status exceeds the newest adopted policy targets.

Strategic Asset Allocation Policy

	Asset Allocation Policy Targets Based on Funded Ratio								Rebalancing	
	Funded Ratio								Range as a % of	
Asset Class	<75%	75%	80%	85%	90%	95%	100%	105%	110%	Asset Class
Public Equity	39.0%	24.5%	22.0%	17.0%	14.0%	10.0%	7.5%	5.0%	2.0%	0.8-1.2x
Private Equity	8.0%	10.0%	10.0%	10.0%	10.0%	10.0%	7.5%	5.0%	2.0%	0.8-1.2x
Safety Oriented Fixed Income	15.0%	30.5%	33.0%	38.0%	41.0%	46.0%	52.0%	60.5%	70.5%	0.8-1.2x
Opportunistic Fixed Income	15.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	0.8-1.2x
Public Real Assets	15.0%	15.0%	15.0%	15.0%	15.0%	14.0%	13.0%	10.0%	9.0%	0.8-1.2x
Private Real Assets	8.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	9.5%	6.5%	0.8-1.2x
Total Allocation	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	NA

While approved as permissible investment strategies by the Board of Directors, hedge funds are not viewed as an asset class and are therefore not allocated a specific target of the portfolio.

# 7. Rebalancing Policy

Each asset class will normally be maintained within the strategic ranges prescribed in the above table. For example, the starting point policy at the <75% funded ratio is as follows:

Asset Class	Target Allocation	Minimum	Maximum
Public Equity	39.0%	31.2%	46.8%
Private Equity	8.0%	6.4%	9.6%
Safety Oriented Fixed Income	15.0%	12.0%	18.0%
Opportunistic Fixed Income	15.0%	12.0%	18.0%
Public Real Assets	15.0%	12.0%	18.0%
Private Real Assets	8.0%	6.4%	9.6%

If market fluctuations or cash flows cause the holdings of a class to move outside the allocation ranges as of the end of any calendar quarter, corrective action should be considered to remove the imbalance within a reasonable time, taking into account market conditions, transactional costs, and other relevant factors. This rebalancing discipline is intended to encourage "buying low" and "selling high" and to keep the portfolio invested at an appropriate overall risk level. Except when there is a perceived extraordinary downside risk in a particular asset class, movement outside the normal ranges should be avoided.

Investment Staff will monitor the Retirement System's asset allocation relative to target allocations and ranges, and has the authority to direct transactions to address deviations. It is

anticipated that, due to a continuing need to raise cash to pay benefits and because the necessary cash will be generated by the sale of securities in over-weighted asset classes, rebalancing will occur via normal operations. However, should those transactions be inadequate to maintain in-range allocations, Investment Staff may initiate rebalancing transactions. Transactions will be reported to the Board of Directors at the next scheduled Board meeting. From time to time, public equity may serve as a proxy for private equity or private real assets.

#### **8.** Investment Structure

In addition to being diversified across asset classes, the Retirement System will be diversified within each asset class. This will provide reasonable assurance that no single security or class of securities will have a disproportionate impact on the total fund.

Individual asset class portfolios will be diversified so that they are representative of the investment opportunity set within each asset class. The intent is to build asset class portfolios that are structured without strategic bias for or against specific subcategories within each asset class. The number and type of individual investment manager portfolios required to invest pension assets within each asset class will be determined with these portfolio structure principles in mind.

# 9. Liquidity

The Retirement System has a large retired population in current receipt of benefit payments. Therefore, the Retirement System must maintain a level of liquidity sufficient to satisfy the cash flow needs of the System. Also, the Board of Directors wishes to have sufficient flexibility to promptly respond to manager or market-specific issues and limit the extent to which assets are not available for immediate liquidation or reallocation. Accordingly, illiquid assets are limited to a maximum of 25% of the Retirement System's market value.

#### 10. Investment Manager Guidelines

The Board of Directors will select investment managers for the Retirement System based on the contributions that their respective investment styles and processes are expected to make to the investment performance of the overall portfolio. Each manager's Investment Management Agreement shall include the manager's Investment Objective and Guidelines.

The purposes of the Investment Objective and Guidelines are to:

- Establish the investment objective and performance standards for each manager based on its specific style and strategy;
- Identify the manager's approach to evaluating the risks of financial instruments or other assets in which an account is invested;
- Prevent the manager from exposing the account to excessive, undesired or inappropriate risk, or to a disproportionate concentration of risk; and
- Delineate which investments and strategies the manager is permitted to use to achieve its performance objectives (and which investments and strategies are prohibited).

When investment strategies permit the use of derivatives and/or currency management, language should be incorporated in each manager's guidelines to define allowable and prohibited transactions and/or strategies. Sufficient monitoring of counterparty and margin or collateral risk associated with derivatives should be employed by these investment strategies. Derivatives will typically be employed to modify portfolio risk/return characteristics, implement cost-effective asset allocation changes, and/or reduce transaction costs. Derivatives should be used only in circumstances where they offer the most economic means of improving the risk/reward profile of a portfolio or the Retirement System as a whole.

The Board of Directors acknowledges that, if it elects to invest in a commingled investment product (e.g. a group trust, mutual fund, limited partnership, etc.), the policies established for each product will govern and may not comply fully with policies established for the Retirement System. The Board of Directors will monitor the performance of commingled funds to the extent appropriate for the particular product in accordance with the principles set forth in Section 11.

#### 11. Investment Manager Monitoring

By monitoring the investment managers, the Board of Directors extends the initial due diligence into a formal process that regularly verifies the managers' compliance with the Retirement System's objectives and other requirements. In the broadest sense, the monitoring process is intended to confirm that the reasons the Board of Directors initially retained a manager still hold true. The process should disclose whether there has been any deviation from the investment philosophy and process, if the personnel responsible for management of the product are still in place, whether the organization continues to be stable, whether performance meets expectations, and confirms that the manager adheres to its investment guidelines. The underlying principle of the monitoring process is to assure that all risks to which the Retirement System is exposed through the use of investment managers have been identified, understood, and, to the extent possible, prudently managed.

# A. The monitoring process focuses on four areas:

- Compliance with investment guidelines;
- Continuity of and adherence to investment philosophy and process;
- Stability of personnel and organization; and

#### Performance.

### B. Performance Aspects of Monitoring:

The Board of Directors will review the performance of the Retirement System's managers on a quarterly basis. While short-term results will be monitored, it is understood that the objectives for the Retirement System are long-term in nature and that progress toward these objectives will be evaluated accordingly. Manager performance will be evaluated relative to the manager's specific style, risk profile and the market environment in which the performance was generated.

# 12. Exercise of Shareholder Rights

The Board recognizes that publicly-traded securities and other assets of the Retirement System include certain ancillary rights, such as the right to vote on shareholder resolutions at companies' annual shareholders' meetings, and the right to assert claims in securities class action lawsuits or other litigation. As a condition to appointment, investment managers shall agree that they will exercise any shareholder rights with respect to assets under their management solely in the interest of the Retirement System's members, retirees and beneficiaries.

\* \* \* \* \* \* \* \* \* \*