

# VRS Defined Benefit Plan Investment Policy Statement

Approved by the Board of Trustees: June 15, 2006

Updated November 14, 2018

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## 1. Investment Objective

The investment objective of the VRS defined benefit plan portfolio is to maximize return while managing risk within an acceptable range. Due to the long-term nature of the plan's liabilities, the horizon for investment decisions is generally defined as 10 years or longer. Risk is assessed in an asset-liability framework, and primary risk measures are volatility in the plan's assets, funded status, and contribution rates.

The objective of the investment staff is to execute the asset allocation policy established by the Board of Trustees and to attempt to add value relative to the policy benchmarks.

The Code of Virginia (§51.1-124.30) requires that "the Board shall...invest the assets of the Retirement System with the care, skill, prudence, and diligence under the circumstances prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims. The Board shall also diversify such investments so as to minimize the risk of large losses unless under the circumstances it is clearly prudent not to do so."

## 2. Decision Making

The Board is responsible for establishing broad policy guidelines and benchmarks that will enable the fund to achieve its investment objective. Board decisions are required in the following areas:

1. Asset Allocation Targets (Policy Risk/Reward Parameters)
2. Allowable Ranges around the Policy Targets
3. Total Fund and Program Level Benchmarks
4. Active Risk Ranges Relative to Policy

Beyond these broad policy decisions, the Board delegates to the Chief Investment Officer (CIO) all other decision-making relating to the investment of VRS assets, subject to the guidelines presented in this document.

In carrying out its fiduciary duty to oversee the investments of the fund, the Board will consider advice and recommendations provided by the VRS Investment Advisory Committee (IAC). The specific duties and responsibilities of the IAC are described in the IAC Charter.

### **3. Asset Allocation/Rebalancing**

The Board has an Investment Policy Committee (IPC). Its membership is the entire Board of Trustees. The IPC is a forum for the Board to discuss the fund's mission, objectives, risk tolerance and asset allocation.

The fund's strategic asset allocation mix will be set by the Board and reviewed periodically. Annually, the Board will review the capital market return projections. In setting the strategic asset allocation mix, the Board will give consideration to the recommendations of the CIO and the IAC. A significant change in capital market conditions, pension program demographics, or benefit formula could trigger a fresh asset/liability study.

In developing policy parameters, the Board will work on an asset-liability analysis with an outside expert on such issues. Normally an analysis will be made every 2 – 3 years to coincide with the contribution rate setting cycle. This project is designed to assist the Board in determining an acceptable volatility target for the fund and an optimal asset allocation policy mix. The Board will also establish an allowable range around each asset class target weight within which the CIO is granted discretion.

Appendix 1 shows the fund's current strategic asset allocation mix and the allowable range for each asset class.

### **4. Total Fund Performance Benchmark**

The Board will establish the total fund performance benchmark. In analyzing the performance of the fund and the investment staff, the Board will use a VRS Custom Benchmark. The VRS Custom Benchmark represents the strategic asset allocation mix and the program level benchmarks established by the Board during the asset allocation process. The VRS Custom Benchmark is rebalanced monthly. See Appendix 1 for details.

Assets involved in transition from one mandate to another may be temporarily managed within "Transition Accounts" and such individual accounts might not be benchmarked during the transition period. The CIO will ensure that such transitions are completed on a timely basis, consistent with market conditions.

### **5. Active Risk Allocation**

The Board will establish a total fund active risk range that describes the degree of tolerance for yearly variation in the fund's performance relative to the Total Fund Custom Benchmark. The primary risk measure used for this purpose is Tracking Error, calculated as the standard deviation of the difference between the fund's return and the benchmark's return. From this measure, probability estimates can be derived to help the

Board estimate the risk of underperforming the benchmark by certain margins. It is recognized that statistical measures, such as tracking error, are in fact just estimates and do not guarantee that observed performance will occur as expected.

Appendix 1 shows the current tracking error range for the total fund.

## **6. Program and Manager Level Policies**

The Board delegates to the CIO the authority to establish and modify as necessary the program level investment policy statements. Individual manager investment policy statements can be approved by the respective Program Managers provided they work in concert with the overarching program level investment policy statements. Each program and investment manager policy statement (both internal and external) should clearly define the investment objectives, allowable strategies, limits, risks, and performance benchmarks applicable to the program or account in question. In the case of commingled investments or where VRS is a limited partner, the appropriate fund documents (i.e. Limited Partnership Agreement, Offering Memorandum, etc.) may be used in lieu of the investment manager policy statement. The program level policy statement should also include due diligence procedures for hiring, monitoring, and terminating investment managers. The CIO is responsible for ensuring that adequate due diligence is being performed in the evaluation of potential and existing investments, and that all investment activity will be legal and in compliance with appropriate regulatory bodies.

## **7. Investment Manager Selection and Termination**

The CIO has full authority to hire and fire investment managers and negotiate or renegotiate fees at any time using processes deemed likely to achieve the best investment results for the fund. The CIO will report any hirings or terminations at the next Board meeting.

## **8. Risk Management**

Risk management is a primary objective for the investment staff and investment results will be reviewed in the context of risk-adjusted returns. The primary risk objectives for the fund are to (1) manage the volatility of the fund within a reasonable range around the targeted volatility as established in the asset allocation process, and (2) manage the tracking error of the fund within the tracking error range as established by the total fund risk budget. Should the total fund experience active risk outside of the tracking error range, the CIO is responsible for communicating the variance to the Board on a timely basis. In addition, the CIO is responsible for obtaining and/or developing appropriate systems, models, tools, and reports necessary to monitor the risks of the fund and effectively communicate such risks on a regular basis to the Board.

## **9. Authority to Execute Contracts**

The CIO and the Chief Administrative Officer (CAO) have full authority to execute contracts on behalf of VRS, provided that any contract relating directly to an investment decision must be approved by the CIO. Such contracts may include, but not be limited to, investment management contracts, partnership agreements, subscription agreements, service agreements, consulting contracts, and contracts for derivative investment instruments consistent with the fund's investment policy and strategies.

## **10. Best Execution**

Generally, all investment transactions executed on behalf of the fund will be made on the basis of best execution. VRS defines best execution as the process and price that results in the best overall performance impact, as judged by the portfolio manager, taking into account current market conditions. VRS will generally discourage the use of soft dollar arrangements, and where such arrangements are utilized, staff will review this usage for reasonableness.

## **11. Corporate Governance Policy**

All investment activity will be consistent with the Board's Corporate Governance Policy, which outlines procedures for proxy voting, securities litigation, and involvement in investor groups.

## **12. Use of Consultants / Service Providers**

The CIO has authority to hire consultants, research providers, and other service providers providing that such expenditures are in alignment with the Board approved investment department operating budget.

### **13. Reporting**

The CIO is responsible for reporting on a timely basis the significant activity and results of the fund. Such reports will include regular performance reports and commentary and updates as needed in each Board meeting. The CIO will respond in a timely manner to requests for information from the Board.

### **14. Code of Ethics**

The investment staff will conduct its affairs in a manner that reflects the highest standards of ethical conduct. The staff is expected to comply with the CFA Institute Code of Ethics and Standards of Professional Conduct, a copy of which is attached.

**VRS Defined Benefit Plan Investment Policy Statement**  
as of November 14, 2018 \*

**Appendix 1**

Asset Class (Strategies)	Policy Target %	Allowable Range	Benchmark	Tracking Error Range
Global Public Equity	40.0%	35% - 45%	Public Equity Custom	
Global Equity	-	-	MSCI ACWI IMI with developed currencies 50% hedged Index Net	
Equity Hedge Funds	-	-	Credit Suisse Equity Long/Short Broad Index	
Fixed Income	16.0%	14% - 21%	Bloomberg Barclays Capital US Aggregate Index	
Credit Strategies	15.0%	10% - 20%	Credit Strategies Custom	
Non-Rate Sensitive Credit	-	-	S&P Performing Loan Index	
Rate Sensitive Credit	-	-	Rate Sensitive Custom Benchmark	
Convertible Bonds	-	-	Merrill Lynch All U.S. Convertibles Index	
Emerging Market Debt	-	-	Emerging Market Debt Custom	
Real Assets	14.0%	9% - 19%	Real Assets Custom	
Public Real Estate	-	-	FTSE/EPRA/NAREIT Developed REIT Index	
Private Real Estate	-	-	NCREIF ODCE Index Net	
Other Real Assets	-	-	CPI-U + 400 bps	
Private Equity	10.0%	5% - 15%	Private Equity Custom	
MAPS	3.0%	2% - 4%	MAPS Custom Benchmark	
DStrat	-	-	DStrat Custom Benchmark	
RBI	-	-	RBI Custom Benchmark	
PIP	2.0%	1% - 3%	PIP Custom Benchmark	
Cash	0.0%	0% - 5%	Merrill Lynch 91-day T-Bill Index	
<b>Total Fund</b>	<b>100.0%</b>		<b>VRS Custom Benchmark</b>	<b>100 - 300 bps</b>
<b>Hedge Funds (Strategies)</b>	<b>≤ 15.0%</b>	<b>n/a</b>	<b>varies by program</b>	

Note: The Board establishes and reviews the total fund tracking error range. The total fund tracking error range is the allowable observed tracking error calculated quarterly using 5 years of history. Should the plan experience active risk outside of the tracking error range, the CIO is responsible for communicating the variance to the Board on a timely basis. The total fund tracking error range is the amount of expected tracking error based on the total fund's current mix and strategies. The CIO establishes individual program tracking error ranges.

The Public Equity Custom Benchmark is a blend of the MSCI ACWI IMI with developed market currencies 50% hedged (net VRS tax rates) Index (80%) and the Credit Suisse Equity Long/Short Broad Index (20%).

The Credit Strategies Custom Benchmark is the weighted average of the Citigroup Broad Investment Grade Index (10%), the Bank of America Merrill Lynch BB-B Constrained Index (20%), the S&P Performing Loan Index (30%), the Emerging Market Debt Custom Benchmark (20%), and the Bank of America Merrill Lynch All U.S. Convertibles Index (20%).

The Rate Sensitive Credit Custom Benchmark is the weighted average of the Citigroup Broad Investment Grade Index and the Bank of America Merrill Lynch BB-B Constrained Index.

The Emerging Market Debt Custom Benchmark is a weighted average of the JP Morgan GBI-Emerging Markets Global Diversified Index (25% weighting) and the JP Morgan EMBI Global Diversified Index (75% weighting).

The Real Assets Custom Benchmark is the market value weighted blend of the Total Real Estate Benchmark, of which 85% is the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) and 15% of the Total REIT Benchmark (FTSE/EPRA/NAREIT Developed REIT Index) and the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) with modified benchmarking for Other Real Assets during the increased allocation period.

The Private Equity Custom Benchmarks is the MSCI ACWI IMI with the developed market currencies 50% hedged customized for the VRS dividend withholding tax rates lagged by three months plus 250 basis points per annum with modified benchmarking during the increased allocation period.

The Multi-Asset Public Strategies (MAPS) Custom Benchmark is the market value weighted average of the benchmarks of the mandates (Dynamic Strategies and Risk-Based Investments) within the program.

The Dynamic Strategies (DStrat) Benchmark is a blend of the MSCI ACWI IMI with developed market currencies 50% hedged (net VRS tax rates) Index (60%), the Bloomberg Barclays Capital US Aggregate Index (20%), the Bank of America Merrill Lynch U.S. High Yield BB-B Constrained Index (10%) and the JP Morgan EMBI Global Diversified Index (10%).

The Risk-Based Investments (RBI) Benchmark is a blend of the RBI Diversifiers Benchmark (80%) and the HRFI Risk Parity 12% Volatility Benchmark (20%). The RBI Diversifiers Benchmark is composed of the Credit Suisse Hedge Fund Index (25%), the Credit Suisse Global Macro Index (20%), the Credit Suisse Managed Futures Index (15%) and the Bloomberg Barclays Capital US Aggregate Bond Treasury Index (20%) scaled into the benchmark as volatility mandates are added to the program.

The Private Investment Partnerships (PIP) Benchmark is the weighted average of the custom VRS Private Equity Benchmark (MSCI 50% hedged customized for the VRS dividend withholding tax rates lagged by three months plus 250 basis points) (40%), the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) (30%), the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) (10%), the Credit Strategies Rate Sensitive Benchmark (the Bank of America Merrill Lynch High Yield BB-B Constrained Index) (10%), and the Credit Strategies Non-Rate Sensitive Benchmark (the S&P Performing Loan Index) (10%).

The VRS Custom Benchmark is a blend of the Asset Class Benchmarks at policy weights.

Hedge Funds are a collection of active strategies that may be used in any VRS investment program that fits the underlying assets.

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\* Previous date was September 1, 2016

# CODE OF ETHICS AND STANDARDS OF PROFESSIONAL CONDUCT

## PREAMBLE

The CFA Institute Code of Ethics and Standards of Professional Conduct are fundamental to the values of CFA Institute and essential to achieving its mission to lead the investment profession globally by promoting the highest standards of ethics, education, and professional excellence for the ultimate benefit of society. High ethical standards are critical to maintaining the public's trust in financial markets and in the investment profession. Since their creation in the 1960s, the Code and Standards have promoted the integrity of CFA Institute members and served as a model for measuring the ethics of investment professionals globally, regardless of job function, cultural differences, or local laws and regulations. All CFA Institute members (including holders of the Chartered Financial Analyst® [CFA®] designation) and CFA candidates must abide by the Code and Standards and are encouraged to notify their employer of this responsibility. Violations may result in disciplinary sanctions by CFA Institute. Sanctions can include revocation of membership, revocation of candidacy in the CFA Program, and revocation of the right to use the CFA designation.

## THE CODE OF ETHICS

Members of CFA Institute (including CFA charterholders) and candidates for the CFA designation ("Members and Candidates") must:

- Act with integrity, competence, diligence, respect and in an ethical manner with the public, clients, prospective clients, employers, employees, colleagues in the investment profession, and other participants in the global capital markets.
- Place the integrity of the investment profession and the interests of clients above their own personal interests.
- Use reasonable care and exercise independent professional judgment when conducting investment analysis, making investment recommendations, taking investment actions, and engaging in other professional activities.
- Practice and encourage others to practice in a professional and ethical manner that will reflect credit on themselves and the profession.
- Promote the integrity and viability of the global capital markets for the ultimate benefit of society.
- Maintain and improve their professional competence and strive to maintain and improve the competence of other investment professionals.

## STANDARDS OF PROFESSIONAL CONDUCT

### I. PROFESSIONALISM

- A. Knowledge of the Law.** Members and Candidates must understand and comply with all applicable laws, rules, and regulations (including the CFA Institute Code of Ethics and Standards of Professional Conduct) of any government, regulatory organization, licensing agency, or professional association governing their professional activities. In the event of conflict, Members and Candidates must comply with the more strict law, rule, or regulation. Members and Candidates must not knowingly participate or assist in and must dissociate from any violation of such laws, rules, or regulations.
- B. Independence and Objectivity.** Members and Candidates must use reasonable care and judgment to achieve and maintain independence and objectivity in their professional activities. Members and Candidates must not offer, solicit, or accept any gift, benefit, compensation, or consideration that reasonably could be expected to compromise their own or another's independence and objectivity.

- C. Misrepresentation.** Members and Candidates must not knowingly make any misrepresentations relating to investment analysis, recommendations, actions, or other professional activities.
- D. Misconduct.** Members and Candidates must not engage in any professional conduct involving dishonesty, fraud, or deceit or commit any act that reflects adversely on their professional reputation, integrity, or competence.

### II. INTEGRITY OF CAPITAL MARKETS

- A. Material Nonpublic Information.** Members and Candidates who possess material nonpublic information that could affect the value of an investment must not act or cause others to act on the information.
- B. Market Manipulation.** Members and Candidates must not engage in practices that distort prices or artificially inflate trading volume with the intent to mislead market participants.

### III. DUTIES TO CLIENTS

- A. Loyalty, Prudence, and Care.** Members and Candidates have a duty of loyalty to their clients and must act with reasonable care and exercise prudent judgment. Members and Candidates must act for the benefit of their clients and place their clients' interests before their employer's or their own interests.
- B. Fair Dealing.** Members and Candidates must deal fairly and objectively with all clients when providing investment analysis, making investment recommendations, taking investment action, or engaging in other professional activities.
- C. Suitability.**
1. When Members and Candidates are in an advisory relationship with a client, they must:
    - a. Make a reasonable inquiry into a client's or prospective client's investment experience, risk and return objectives, and financial constraints prior to making any investment recommendation or taking investment action and must reassess and update this information regularly.
    - b. Determine that an investment is suitable to the client's financial situation and consistent with the client's written objectives, mandates, and constraints before making an investment recommendation or taking investment action.
    - c. Judge the suitability of investments in the context of the client's total portfolio.
  2. When Members and Candidates are responsible for managing a portfolio to a specific mandate, strategy, or style, they must make only investment recommendations or take only investment actions that are consistent with the stated objectives and constraints of the portfolio.
- D. Performance Presentation.** When communicating investment performance information, Members and Candidates must make reasonable efforts to ensure that it is fair, accurate, and complete.
- E. Preservation of Confidentiality.** Members and Candidates must keep information about current, former, and prospective clients confidential unless:
1. The information concerns illegal activities on the part of the client or prospective client,
  2. Disclosure is required by law, or
  3. The client or prospective client permits disclosure of the information.

### IV. DUTIES TO EMPLOYERS

- A. Loyalty.** In matters related to their employment, Members and Candidates must act for the benefit of their employer and not deprive their employer of the advantage of their skills and abilities, divulge confidential information, or otherwise cause harm to their employer.
- B. Additional Compensation Arrangements.** Members and Candidates must not accept gifts, benefits, compensation, or consideration that competes with or might reasonably be expected to create a conflict of interest with their employer's interest unless they obtain written consent from all parties involved.
- C. Responsibilities of Supervisors.** Members and Candidates must make reasonable efforts to ensure that anyone subject to their supervision or authority complies with applicable laws, rules, regulations, and the Code and Standards.

### V. INVESTMENT ANALYSIS, RECOMMENDATIONS, AND ACTIONS

- A. Diligence and Reasonable Basis.** Members and Candidates must:
1. Exercise diligence, independence, and thoroughness in analyzing investments, making investment recommendations, and taking investment actions.
  2. Have a reasonable and adequate basis, supported by appropriate research and investigation, for any investment analysis, recommendation, or action.
- B. Communication with Clients and Prospective Clients.** Members and Candidates must:
1. Disclose to clients and prospective clients the basic format and general principles of the investment processes they use to analyze investments, select securities, and construct portfolios and must promptly disclose any changes that might materially affect those processes.
  2. Disclose to clients and prospective clients significant limitations and risks associated with the investment process.
  3. Use reasonable judgment in identifying which factors are important to their investment analyses, recommendations, or actions and include those factors in communications with clients and prospective clients.
  4. Distinguish between fact and opinion in the presentation of investment analysis and recommendations.
- C. Record Retention.** Members and Candidates must develop and maintain appropriate records to support their investment analyses, recommendations, actions, and other investment-related communications with clients and prospective clients.

### VI. CONFLICTS OF INTEREST

- A. Disclosure of Conflicts.** Members and Candidates must make full and fair disclosure of all matters that could reasonably be expected to impair their independence and objectivity or interfere with respective duties to their clients, prospective clients, and employer. Members and Candidates must ensure that such disclosures are prominent, are delivered in plain language, and communicate the relevant information effectively.
- B. Priority of Transactions.** Investment transactions for clients and employers must have priority over investment transactions in which a Member or Candidate is the beneficial owner.
- C. Referral Fees.** Members and Candidates must disclose to their employer, clients, and prospective clients, as appropriate, any compensation, consideration, or benefit received from or paid to others for the recommendation of products or services.

### VII. RESPONSIBILITIES AS A CFA INSTITUTE MEMBER OR CFA CANDIDATE

- A. Conduct as Participants in CFA Institute Programs.** Members and Candidates must not engage in any conduct that compromises the reputation or integrity of CFA Institute or the CFA designation or the integrity, validity, or security of the CFA Institute programs.
- B. Reference to CFA Institute, the CFA Designation, and the CFA Program.** When referring to CFA Institute, CFA Institute membership, the CFA designation, or candidacy in the CFA Program, Members and Candidates must not misrepresent or exaggerate the meaning or implications of membership in CFA Institute, holding the CFA designation, or candidacy in the CFA program.