

Investment Policy Committee (IPC) Meeting Virtual via GoToWebinar Wednesday, 3/24/2021 1:00 - 3:00 PM ET

- I. Welcome & Introductions
- **II. Public Comment**
- **III. Approval of Prior Meeting Minutes**
 - August 13, 2019

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- November 20, 2019 (Brown Bag Lunch)
 IPC BBL Minutes Nov 20 2019 DRAFT Page 5
- February 13, 2020 (Brown Bag Lunch)

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- November 17, 2020 (Brown Bag Lunch)

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IV. Discussion and Review of Investments Beliefs Statement

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Investment Policy Committee
Meeting Minutes
August 13, 2019 10:00 a.m.
Page 1 of 3

Minutes

A joint meeting of the Investment Advisory Committee (IAC) and the Investment Policy Committee (IPC) of the Virginia Retirement System was held on August 13, 2019 with the following IPC members present:

Mitchell Nason, Chairperson Diana Cantor Brandon Bell Wallace Harris Brett Hayes William Leighty O'Kelly E. McWilliams, III Joseph Montgomery

The following IAC members were present:

Larry Kochard
Deborah Allen Hewitt
Michael Beasley
Theodore Economou
Thomas Gayner
Rod Smyth

The following staff members were in attendance:

Trish Bishop, Ron Schmitz, Stephen Adelaar, John Alouf, Rory Badura, Parham Behrooz, Erica Billingslea, Jeanne Chenault, Michael Cooper, Perry Corsello, Sara Denson, Josh Fox, Bryan Gardiner, Brian Goodman, Katie Grawe, JT Grier, Dane Honrado, K.C. Howell, Ross Kasarda, Kristina Koutrakos, Matt Lacy, Chung Ma, Curt Mattson, Jennifer MacKnight, Steve McClelland, Scott Mootz, Laurie Nelson, Walker Noland, Greg Oliff, Steven Peterson, Vera Pleasants, Jennifer Schreck, Lisa Turner, Dan Whitlock.

Also in attendance was Kimberly Sarte of JLARC; Marshall Terry and Rick Fowler of Virginia Governmental Employees Association; Jennifer Schoeller of APA; Adam Rosatelli of the Senate Finance Committee; and John Meier of Verus Investments.

Mr. Nason called the meeting to order at 10:01 a.m.

Minutes

A motion was made and seconded to approve the Investment Policy Committee minutes from the following Brown Bag Lunch meetings:



Investment Policy Committee Meeting Minutes August 13, 2019 10:00 a.m. Page 2 of 3

November 14, 2018, December 13, 2018, February 14, 2019, May 13, 2019, and June 13, 2019. The motion was unanimously approved.

CIO Report

Mr. Schmitz then gave a brief overview of current economic and market conditions. Mr. Schmitz reviewed plan performance analysis, including asset allocation, risk bucketed asset allocation, investment performance, and tracking error. Mr. Schmitz presented the Performance Summary and the Asset Allocation Report as of June 30, 2019. Mr. Schmitz then reviewed the New Investments and Terminations Report.

Asset Liability Study

Dr. Peterson introduced John Meier from Verus, and the Asset Liability Study that Verus has been conducting. Mr. Meier presented details regarding the Asset Liability study, including projections given current VRS risk and return assumptions, projections given changes to current VRS risk and return assumptions and the implications of the change to these assumptions.

Updated possible long-term Defined Benefits Plan asset allocation and allowable ranges were also presented.

The IPC and IAC members then discussed the projections and the implications of the various assumptions.

The IPC agreed that the assumed rate of return could be lowered, however, determined that further discussion at the next Board meeting is warranted before a final decision.

Recommended Program Benchmark Updates

Mr. Whitlock proposed a change to the VRS Public Equity Benchmark. Details of the current VRS Public Equity Benchmark were presented to the Committees, as well as details regarding the benchmark being proposed for the VRS Public Equity Program.

Mr. McClelland outlined changes to the Credit Strategies program that will be implemented at January 1, 2020. Because of the changes outlined, a change to the benchmark for the program is being proposed.

Mr. Gardiner outlined changes that are ongoing in the Fixed Income program. Because of the changes outlined, a change to the benchmark for the program is being proposed.

Members of both Committees engaged in thorough and detailed discussion throughout all of the reviews provided.



Investment Policy Committee Meeting Minutes August 13, 2019 10:00 a.m. **Page 3 of 3**

Request for Board Action

Based on the results of the asset/liability study and an in-depth discussion, as well as the Investment Advisory Committee's full support, the Investment Policy Committee recommends the approval of the following actions to the full Board:

Request for Board Action: The Board approves changes to the benchmarks in the Defined Benefit Plan Investment Policy Statement for the following programs: Public Equity; Credit Strategies; and Fixed Income. These changes are effective January 1, 2020. (Upon further review by staff since the last meeting, additional changes to the benchmarks may be necessary. Staff plans to review proposed changes at the November IAC meeting, and will bring revisions to the Board of Trustees at its November 20, 2019 meeting)

Request for Board Action: The VRS Board of Trustees approves the recommended changes to update the Defined Benefit Plan Strategic Asset Allocation and Allowable Ranges to reflect the new long-term Board target asset mix. The changes are effective January 1, 2020. (Note that the dates in the RBA for the Defined Benefit Plan Asset Allocation have been updated to clarify the inception date of the previous long-term target asset mix.)

Adjournment

The meeting was adjourned at 2:52 p.m.



Investment Policy Committee Meeting Minutes November 20, 2019 12:00 p.m. Page 1 of 1

Minutes

The Investment Policy Committee of the Virginia Retirement System held an informal meeting ("Brown Bag Lunch Session") for the purpose of member education on November 20, 2019 at the Bank of America Building, 1111 East Main Street, Richmond, Virginia with the following members present:

Mitchell Nason
Diana Cantor
Wallace "Bo" Harris
William Leighty
O'Kelly E. McWilliams, Ill
Joe Montgomery
Troilen Seward

Also present were Trish Bishop, Ron Schmitz, Sylvia Aryeh, Rory Badura, Jeanne Chenault, Michael Cooper, Sara Denson, Barry Faison, Josh Fox, JT Grier, KC Howell, Ross Kasarda, Kristina Koutrakos, Chung Ma, Jennifer MacKnight, Curt Mattson, Jennifer Schreck, Jillian Sherman, Lisa Turner, and Cindy Wilkinson of the VRS staff.

Liz Meyers from OAG; Lauren Axselle and Jamie Bitz from JLARC; and Latasha Johnson from the Virginia Department of Planning and Budget were also present.

The informal meeting convened at 12:03 p.m.

Meeting Contents

An informal education session, led primarily by Chung Ma, Ross Kasarda, and Kristina Koutrakos was conducted for the purpose of providing general education information on the Multi-Asset Public Strategy. A general discussion was held throughout the presentation.

Adjournment

The meeting was adjourned at 12:55 p.m.



Investment Policy Committee Meeting Minutes February 13, 2020 12:00 p.m. **Page 1 of 1**

Minutes

The Investment Policy Committee of the Virginia Retirement System held an informal meeting ("Brown Bag Lunch Session") for the purpose of member education on February 13, 2020 at the Bank of America Building, 1111 East Main Street, Richmond, Virginia with the following members present:

Mitchell Nason Diana Cantor Brandon Bell Wallace "Bo" Harris William Leighty O'Kelly E. McWilliams, Ill Joe Montgomery **Troilen Seward**

Also present were Trish Bishop, Ron Schmitz, Stephen Adelaar, Rory Badura, Jeanne Chenault, Michael Cooper, Sara Denson, Laurie Fennell, Josh Fox, Katie Grawe, JT Grier, KC Howell, Kristina Koutrakos, Matt Lacy, Chung Ma, Jennifer MacKnight, Curt Mattson, Steven Peterson, Dan Schlussler, Jennifer Schreck, Kristy Scott, Lisa Turner, Dan Whitlock, and Cindy Wilkinson of the VRS staff.

Liz Meyers from OAG and Jamie Bitz from JLARC were also present.

The informal meeting convened at 12:00 p.m.

Meeting Contents

An informal education session, led primarily by Steven Peterson, Matt Lacy, Dan Schlussler, Dan Whitlock, and Stephen Adelaar was conducted for the purpose of providing general education information on Global Equity - Long / Short activities. A general discussion was held throughout the presentation.

Adjournment

The meeting was adjourned at 1:00 p.m.



Investment Policy Committee Meeting Minutes November 17, 2020 12:00 p.m. Page 1 of 2

Minutes

An electronic meeting, held in accordance with Item 4-0.01 of Chapter 1289 of the 2020 Acts of Assembly, of the Investment Policy Committee of the Virginia Retirement System was held on November 17, 2020 with the following members present:

O'Kelly E. McWilliams, Ill Joseph Montgomery Michael Disharoon William Garrett Susan Gooden Wallace "Bo" Harris Troilen Seward

Also present were Trish Bishop, Ron Schmitz, John Alouf, Rory Badura, Parham Behrooz, Jeanne Chenault, Michael Cooper, Sara Denson, Valerie Disanto, Josh Fox, JT Grier, Dane Honrado, K.C. Howell, Ross Kasarda, Kristina Koutrakos, Matt Lacy, Chung Ma, Jennifer MacKnight, Curt Mattson, Tom Mulvin, Walker Noland, Greg Oliff, Jummai Sarki-Hurd, Dan Schlussler, Jennifer Schreck, Kristy Scott, Michael Scott, Jillian Sherman, Lisa Turner, Dan Whitlock, and Cindy Wilkinson of the VRS staff.

Beth Blandford from Pageant Media, Carlton Byrd from Triple I Partners, and Zack Cziryak from Financial Investment News were also present.

Ms. Turner served as host and walked participants through the logistics of an electronic meeting. Ms. Turner turned the meeting over to Mr. McWilliams to call the meeting to order.

Mr. McWilliams called the meeting to order at 12:05 p.m. Mr. McWilliams noted that given the current circumstances related to COVID-19, the IPC was unable to meet in person. However, utilizing electronic means, the IPC could hold this meeting in accordance with Item 4-0.01 of Chapter 1289 of the 2020 Acts of Assembly as it relates to conducting business during the pandemic.

Mr. McWilliams took a roll call of each IPC member for attendance purposes:

Mr. Bell – not present Mr. Disharoon – present Mr. Garrett – present Dr. Gooden – present



Investment Policy Committee Meeting Minutes November 17, 2020 12:00 p.m. Page 2 of 2

Mr. Harris – present

Mr. Hayes – not present

Mr. Montgomery – present

Ms. Seward – present

Mr. McWilliams - present

Meeting Contents

An information session led by K.C. Howell was conducted for the purpose of providing general information on the VRS Investments Women and Minority Engagement Policy. The presentation included the existing policy, as well as proposed changes to the existing policy that will redefine the diverse community and clarify reporting requirements. An updated policy will be presented through a Request for Board Action to the Board of Trustees at the December 10, 2020 meeting. A general discussion regarding diversity was held throughout the presentation.

Adjournment

Mr. Montgomery made a motion to adjourn the meeting. Mr. Harris seconded the motion. Mr. McWilliams asked for each Committee member to vote on the motion:

Mr. Disharoon – Aye

Mr. Garrett - Aye

Dr. Gooden – Aye

Mr. Harris – Aye

Mr. Hayes - Aye

Mr. Montgomery – Aye

Ms. Seward – Aye

Mr. McWilliams - Aye

The motion to adjourn the meeting passed.

The meeting was adjourned at 12:40 p.m.



Investment Policy Committee

Investment Beliefs Statements Review

March 24, 2021



Key Investment Portfolio Documents



Investment Beliefs Statement Articulates fundamental views of the Board and establishes the foundation for making investment-related decisions (guides Board policy as well as day-to-day staff implementation).

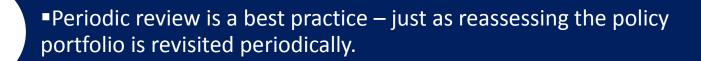
Asset Liability Policy

Sets desired risk/reward profile and defines asset class target exposures and allowable ranges.

Investment Policy Statement Codifies policy portfolio, establishes Board and staff responsibilities, delegates authority, and sets guidelines for portfolio operations.

Why Review These Now?





New members have joined the Board (IPC) since the current Investment Beliefs Statements document was created.

Market action can test investment beliefs from time to time; now is a good time to examine a few of our beliefs that have been under pressure.

Are there any new beliefs to add?

Today's Activities



Staff Made Suggested Changes To The Investment Beliefs Statement On Two Levels:

- Initial edits based on grammar and clarity
- Secondary edits to better organize the document
- Possible Board actions today
 - Keep current Investment Beliefs 'as is'
 - Review and approve proposed document
 - Edit the edits (fine-tuning)
 - Enlist a consultant to do a full survey of Board beliefs



I. Introduction

The VRS Board of Trustees (Board) developed Investment Beliefs to help guide the strategic management of the VRS investment portfolio. These Investment Beliefs represent a high-level framework for making decisions that require balancing multiple, and competing, factors. In addition, the Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on maintaining the long-term commitment to provide benefits to participants.

II. VRS Investment Beliefs Statements

With the assistance of an outside expert, the Board developed the following Investment Beliefs Statements to guide the Board's decisions and provide an anchor to the Board's stated goals and objectives.



Goals and Objectives

- 1) The primary objective of the VRS investment portfolio is to achieve the highest level of return for a given level of risk over the long term.
- 2) With respect to VRS' investments, the VRS Board has two key roles:
 - a. Establish the overall level of investment risk for the Fund:
 - i. <u>Total Risk</u> (range of outcomes that the VRS total portfolio is likely to experience). Total risk is determined largely by the Strategic Allocation Policy as set by the Board. Total risk is the larger of the two risks.
 - ii. Relative Risk (range of outcomes in relation to Strategic Allocation Policy benchmark). Once the Board establishes this range, staff is expected to add value over the investment performance policy benchmark by an amount commensurate with that amount of relative risk allowed. While material, relative risk is typically a fraction of total risk.
 - b. Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.



- 3) As VRS conducts its investment activities, it seeks to strike a balance among three competing objectives:
 - a. <u>Achieving Long Term Funding Progress</u> In order to achieve long term funding goals, VRS must allocate to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce volatility into the Fund.
 - b. Avoiding Short Term Drawdown Risk Higher exposures to equity and liquidity risk increase the probability of large short-term mark-to-market declines in the Fund's value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.
 - c. <u>Avoiding Contribution Volatility</u> Short term mark-to-market declines in the Fund's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, thus requiring higher overall contribution rates and raising long term costs for employers.



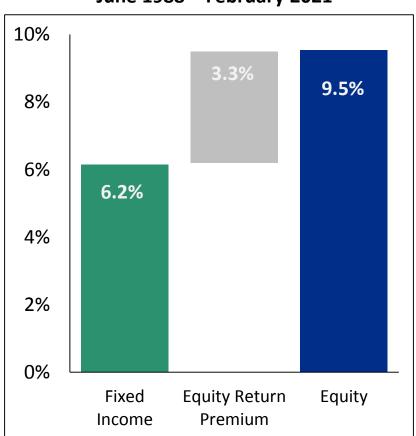
VRS Access and Structural Advantages

4) In order to achieve the necessary long-term returns, VRS focuses on two premiums that typically reward long-term investors: the equity risk premium and the illiquidity risk premium. Both risk premiums vary over short to intermediate periods; however, over longer horizons, both risk premiums have historically produced positive returns.

Equity Return Premium (to Fixed Income)



Equity Return Premium To Fixed Income June 1988 – February 2021



Public Equity vs. Fixed Income 5-Year Rolling Returns

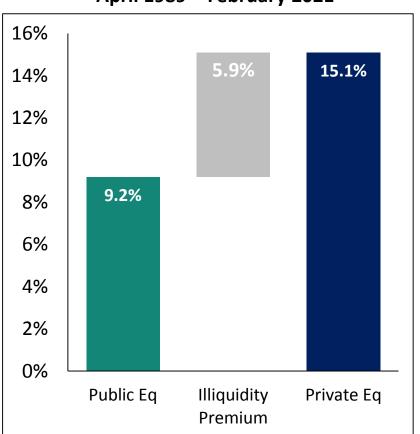


Source: BNY Mellon, using VRS program benchmark returns

Illiquidity Premium



Illiquidity Premium April 1989 – February 2021



Public vs. Private Equity 5-Year Rolling Returns



Source: BNY Mellon, using VRS program returns

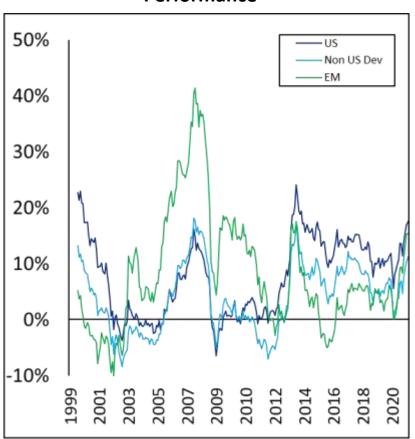


5) VRS has the size and capabilities to pursue global opportunities, which offer a vast array of investments across a wide spectrum of domestic and international markets.

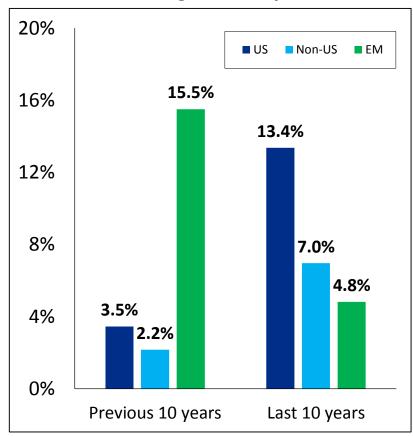
Regional Differences In Returns



5-Year Rolling Equity
Performance



Regional Equity Returns Through February 2021



Source: BNY Mellon, using VRS program benchmarks

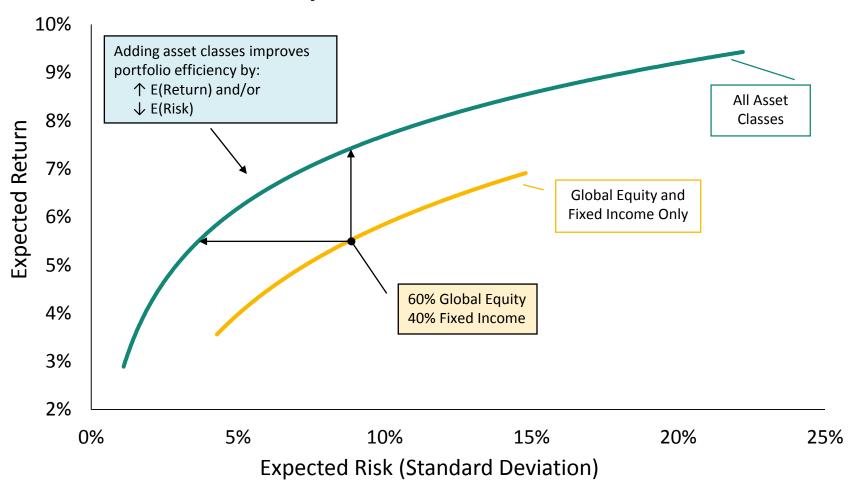


- 6) Diversification can take the form of exposure or time:
 - a) Multiple asset classes/risk premiums enhance the return-risk tradeoff of VRS' investment portfolio, particularly over short-to-intermediate horizons.
 - b) Vintage year diversification, as well as dollar-cost averaging, in and out of investments helps mitigate the impact of market volatility.

Benefits of Diversification

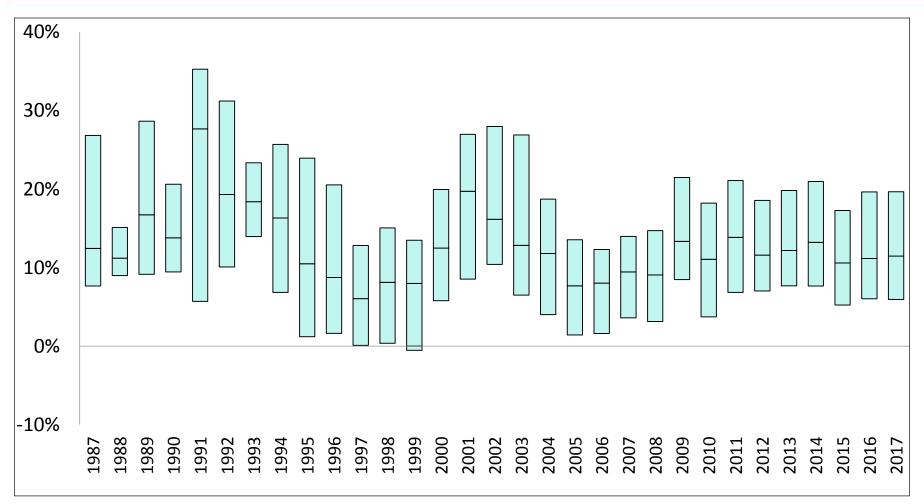


Stylized Efficient Frontiers



Private Equity Median Returns By Vintage Year





Source: Burgiss Vintage Year Global Private Equity Return Universe, Upper = 75th percentile, Lower = 25th Percentile and Line = Median



7) Portfolio management is an active and dynamic process. Market inefficiencies exist in varying degrees across and within all asset classes in which VRS invests. Using both internal and external management capabilities, VRS can add value exploiting these inefficiencies.

Portfolio Management



Opportunities Vary By Asset Class, Geographic Region, Capitalization, etc.

- Passive investing in the purest sense doesn't exist.
- Private market investments require significant resource commitments and are highly active because there are no index alternatives.
- In the Public Markets, investment opportunity sets must be identified and portfolios need rebalancing.
- Opportunities to enhance risk and return due to others' systematic mistakes, liquidity demands, and market frictions exist.

Opportunities Vary By Market Segment and Time



| Asset Class | Market Efficiency | Benchmarking Options | Indexing Options | Expected Tracking Error |
|-------------------|----------------------|-------------------------|---------------------|----------------------------|
| Private Equity | Low | Limited | None | High |
| Real Estate | Low | Limited | None | High |
| Credit Strategies | Low – Med | Limited | None | High – Med |
| Fixed Income | Med – High | Many | Many | Med – Low |
| Public Equity | Med – High | Many | Many | Med – Low |
| Total Fund | Mixed | Reference | Limited | Med |

Best Environments for Active and Passive



| Conducive to Active | Conducive to Passive | |
|---|--------------------------------------|--|
| Higher Interest Rates | Lower Interest Rates | |
| Average to Below-Average Equity Returns | Above–Average Equity Returns | |
| Higher Volatility | Lower Volatility | |
| Higher Dispersion, Lower Correlation | Lower Dispersion, Higher Correlation | |
| More Passive Investors | More Active Investors | |

Source: AllianceBernstein

Active Equity Management At VRS



VRS Has A Long History Of Successful Active Management In Public Equity

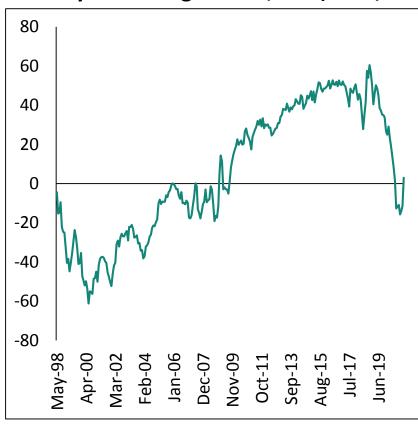
- Since January 2010, 128 of 134 performance reports (96%) have printed positive
 10-year excess returns for Public Equity
- Since 2000, staff has focused on internal management, fees, risk control and somewhat defensive strategies.
- Total history going back to 1988 is less consistent, but still has a good batting average over long time periods
- The recent drawdown in 2020 and recovery was an astonishing lack of breadth and public equity printed 6 months of negative 10-year excess returns. We have had good performance subsequently and are positive again through February (and continued in March).

Active Equity Management At VRS



VRS Has A Long History Of Successful Active Management In Public Equity, But Success Is Somewhat Cyclical.

10-year Rolling Excess (basis points)



Batting Averages

| | From 1988-1999 | Beginning 2000 |
|---------------|-------------------|-------------------|
| Monthly | 50% | 56% |
| Quarterly | 43% | 58% |
| Fiscal Year | 45% | 62% |
| Calendar Year | 45% | 71% |

- Relative to cumulative excess returns (lefthand graph), the recent dislocation has been unusually long and severe.
- Beginning in 2000, the overall public equity strategy became more risk-conscious (right-hand table).



Staff Implementation Parameters

- 8) VRS has the governance structure, staffing and resources to leverage the cost savings associated with managing assets in-house. Given these attributes, staff should continue to explore further expansion of internal capabilities in areas that leverage staff's expertise in a cost-effective manner.
- 9) VRS has a long history of investment innovation and the Board encourages staff to continue to explore, access and implement creative investment approaches and strategies. Staff is expected to monitor new initiatives closely, and the Board recognizes that not all may develop into permanent strategies.
- 10) Costs (management fees, commissions, transaction costs, etc.) related to managing the VRS investment program are significant and have a material impact upon long-term performance. As an experienced, large-scale investor, VRS will seek to maximize its negotiating leverage to manage its assets in a cost-effective manner.



- 11) VRS believes it is difficult to successfully add value by making frequent, large scale shifts between major asset classes; however, smaller-scale shifts and tilts across asset class segments can add incremental value when based on sound relative value judgments.
- 12) Leverage is a financial tool that can be utilized in a prudent and thoughtful manner to help balance risk exposures, and in turn, enhance the risk/return profile of a portfolio.



Investment Policy Committee

Investment Beliefs Statement Review March 24, 2021

VRS Defined Benefit Plan Investment Belief Statements

Approved by the Board of Trustees: September 8, 2015

1. Introduction

The VRS Board of Trustees developed a set of thirteen Investment Beliefs intended to help guide the strategic management of the VRS investment portfolio. These Investment Beliefs represent a high-level framework for making decisions that often require balancing multiple, often competing, factors and issues. In addition, the Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on VRS maintaining its long-term commitment to provide benefits to its participants.

2. VRS Investment Belief Statements

With the assistance of an outside expert, the Board developed the following thirteen Investment Belief Statements to guide the Board in future decisions and provide an anchor to the Board's stated goals and objectives.

- 1) The primary objective of the VRS investment portfolio is to achieve the highest level of return for a given level of risk over the long term.
- 2) In order to achieve the necessary long-term returns, the VRS relies heavily upon two premiums that have rewarded long-term investors above risk-free investments: the equity risk premium and the illiquidity risk premium.
 - Both risk premiums can vary over short-to-intermediate periods. Over relatively long investment horizons, both risk premiums produce positive real returns.
- 3) The VRS is a global investor, having access to a vast array of investment opportunities across a wide spectrum of domestic and international markets.
 - Across this broad opportunity set, several avenues exist to add value through actively managing portfolio assets rather than holding market-replicating passive exposures.
- 4) While relying on the equity and illiquidity risk premiums produces favorable long-term outcomes, <u>diversifying</u> into other asset classes/risk premiums can enhance the return-risk tradeoff of VRS' investment portfolio, particularly over short-to-intermediate horizons.

- a. VRS' Fixed Income class is the primary diversifier and is expected to (1) provide liquidity across all environments and (2) provide principal protection when risk assets suffer sharp price declines and/or liquidity shortages. VRS also invests in Credit, Real Estate, and other Real Assets to increase income and improve the return/risk profile of the overall portfolio.
- b. <u>Time diversification</u> is also critical. Dollar-cost averaging in and out of investments helps mitigate the impact of market volatility, particularly in the private markets, which are considered high-risk.
- 5) With respect to VRS' investments, the VRS Board of Trustees has two key roles:
 - a. Establishing the overall level of investment risk that VRS' assets can endure:
 - i. <u>Total Risk</u> (range of outcomes that the VRS total portfolio is likely to experience). Total Risk is determined largely by the Board setting the strategic allocation policy. Total Risk is the larger of the two risks.
 - ii. <u>Relative Risk</u> (range of outcomes in relation to VRS' strategic allocation policy benchmark). Once the Board establishes this range, staff is expected to add value over the investment performance policy benchmark by an amount commensurate with that amount of Relative Risk allowed. While material, Relative Risk is typically a fraction of Total Risk.
 - b. Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.
- 6) VRS' investment staff has the capability to:
 - a. Translate the strategic allocation policy into the appropriate market exposures within the portfolio.
 - b. Deliver added value commensurate with the amount of allowable relative risk.

Given these capabilities, staff should continue to explore further expansion of internal management in areas that leverage staff's expertise in a cost effective manner.

- 7) VRS' staff investment management capabilities, the Board and staff's governance structure, and VRS' global orientation allow it to explore, access, and implement innovative investment approaches and strategies.
- 8) Costs (management fees, commissions, transaction costs, etc.) of managing the VRS investment program are significant and have material impact upon long-term performance.
 - As an experienced, large-scale investor, VRS will seek to maximize its negotiating leverage to manage its assets in a cost-effective manner and minimize investment costs where feasible.
- 9) Active management can be a value added proposition for the VRS.
 - a. Market inefficiencies exist in varying degrees across and within all asset classes in which VRS invests.
 - b. Using both internal and external management capabilities, VRS can add value exploiting these inefficiencies.
- 10) As VRS conducts its investment activities, it seeks to strike a balance among three sometimes competing objectives:
 - a. <u>Achieving Long Term Funding Progress</u> In order to achieve long term funding goals, VRS must allocate heavily to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce significant volatility into the System.
 - b. Avoiding Short Term Drawdown Risk Higher exposures to equity and liquidity risk increase the probability of large short term mark to market declines in the fund's value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.
 - c. Avoiding Contribution Volatility Short term mark to market declines in the fund's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, and thus, would require higher overall contribution rates, raising long term costs for employers.
- 11) VRS believes it is difficult to successfully add value by making frequent, large scale shifts between major asset classes. However, smaller-scale shifts and tilts

across asset class segments can add incremental value if based on sound relative value judgments. While it is impossible to perfectly predict what markets will do, there is evidence that markets, in some environments, are more conducive to generating expected returns than others. Investors may improve their risk and reward profiles by identifying these market environments and rotating assets accordingly.

- 12) Leverage is a financial tool. When leverage is used to pursue higher expected returns, expected risk also is likely to rise. However, leverage can also be utilized in a prudent and thoughtful manner to better balance risk exposures and, in turn, enhance the risk/return profile of a portfolio.
- 13) Recognizing that investment scalability is an important issue, the CIO and staff have the authority to consider and pursue smaller/capital constrained opportunities if significant value-added potential exists.

Virginia Retirement System (VRS) Defined Benefit Plan

Investment Beliefs Statements

-Approved by the Board of Trustees: September 8, 2015

I. Introduction

The VRS Board of Trustees (Board) developed a set of thirteen IInvestment Beliefs to intended to help guide the strategic management of the VRS investment portfolio. These Investment Beliefs represent a high-level framework for making decisions that often require balancing multiple, andoften competing, factors and issues. In addition, the Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on VRS maintaining its the long-term commitment to provide benefits to its participants.

II. VRS Investment Beliefs Statements

- With the assistance of an outside expert, the Board developed the following thirteen_ Investment Beliefs Statements to guide the Board's in future decisions and provide an anchor to the Board's stated goals and objectives.
 - 1)—The primary objective of the VRS investment portfolio is to achieve the highest level of return for a given level of risk over the long term.

1)

2)__

In order to achieve the necessary long-term returns, the VRS relies heavily upon focuses on two premiums that have rewarded typically reward long-term investors investors above risk-free investments: the equity risk premium and the illiquidity risk premium.

Both risk premiums-ean vary over short_-to_-intermediate periods; however, -Oover-relatively longer investment horizons, both risk premiums have historically produced positive-real returns_-

<u>2)</u>

3) VRS has the size and capabilities to pursue global opportunities, which offer a vast array of investments across a wide spectrum of domestic and international markets.

3)__

4) The VRS is a global investor, having access to a vast array of investment opportunities across a wide spectrum of domestic and international markets.

5)—

6) Across this broad opportunity set, several avenues exist to add value through actively managing portfolio assets rather than holding market-replicating passive exposures.

7)—

- 4) Diversification can take the form of exposure or time:
 - a. While relying on the equity and illiquidity risk premiums produces favorable long-term outcomes, diversifying into Multipleother asset classes/risk premiums ean enhance the return-risk tradeoff of VRS' investment portfolio, particularly over short-to-intermediate horizons.

<u>a.__</u>

b. <u>Vintage year diversification</u>, as well as dollar-cost averaging, in and out of investments helps mitigate the impact of market volatility.

- a. VRS' Fixed Income class is the primary diversifier and is expected to (1) provide liquidity across all environments and (2) provide principal protection when risk assets suffer sharp price declines and/or liquidity shortages. VRS also invests in Credit, Real Estate, and other Real Assets to increase income and improve the return/risk profile of the overall portfolio.
- b. <u>Time diversification</u> is also critical. Dollar-cost averaging in and out of investments helps mitigate the impact of market volatility, particularly in the private markets, which are considered high-risk.

65) With respect to VRS' investments, the VRS Board of Trustees has two key roles:

- a. Establishing the overall level of investment risk that <u>for VRS'</u> assets the Fund-can endure:
 - Total Risk (range of outcomes that the VRS total portfolio is likely to experience). Total <u>rRisk</u> is determined largely by the <u>Board</u> <u>setting the</u> Strategic Allocation Policy <u>as set by the Board</u>. -Total <u>rRisk</u> is the larger of the two risks.
 - ii. Relative Risk (range of outcomes in relation to VRS' Strategic Allocation Policy benchmark). Once the Board establishes this range, staff is expected to add value over the investment performance policy benchmark by an amount commensurate with that amount of relative re
- b. Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.
- 7) VRS has the governance structure, staffing and resources to leverage the cost savings associated with managing assets in-house. VRS' investment staff has the capability to:

8)

9) Translate the Strategic Allocation Policy into the appropriate market exposures within the portfolio.

10)

- 11) Deliver added value commensurate with the amount of allowable relative risk.
- Given these <u>attributes</u> capabilities, staff should continue to explore further expansion of internal <u>capabilities</u> management in areas that leverage staff's expertise in a cost_effective manner.

- 7) VRS has a long history of investment innovation and the Board encourages staff to continue to 'staff investment management capabilities, the Board and staff's governance structure, and VRS' global orientation allow it to explore, access, and implement innovative creative investment approaches and strategies. Staff is expected to monitor new initiatives closely, and the Board recognizes that not all may develop into permanent strategies.
- 13)8) Costs (management fees, commissions, transaction costs, etc.) related to managing the VRS investment program are significant and have a material impact upon long-term performance. As an experienced, large-scale investor, VRS will seek to maximize its negotiating leverage to manage its assets in a cost-effective manner.
- 14) Costs (management fees, commissions, transaction costs, etc.) of managing the VRS investment program are significant and have material impact upon long-term performance.
- As an experienced, large-scale investor, VRS will seek to maximize its negotiating leverage to manage its assets in a cost-effective manner and minimize investment costs where feasible.
- 16) Portfolio management is an active and dynamic process. Market inefficiencies exist in varying degrees across and within all asset classes in which VRS invests. Using both internal and external management capabilities, VRS can add value exploiting these inefficiencies. Active management can be a value added proposition for the VRS.
- 17)9)
 - a. Market inefficiencies exist in varying degrees across and within all asset classes in which VRS invests
 - b. Using both internal and external management capabilities, VRS can add value exploiting these inefficiencies.

- 48)10) As VRS conducts its investment activities, it seeks to strike a balance among three sometimes competing objectives:
 - a. <u>Achieving Long Term Funding Progress</u> In order to achieve long term funding goals, VRS must allocate <u>heavily</u> to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce <u>significant</u> volatility into the <u>SystemFund</u>.
 - b. Avoiding Short Term Drawdown Risk Higher exposures to equity and liquidity risk increase the probability of large short_-term mark_-to_-market declines in the <u>fund's-Fund's</u> value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.
 - c. <u>Avoiding Contribution Volatility</u> Short term mark_-to_-market declines in the <u>Ff</u>und's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, <u>and</u>-thus, <u>would</u> requiringe higher overall contribution rates <u>and</u>, raising long term costs for employers.
- 19)11) VRS believes it is difficult to successfully add value by making frequent, large scale shifts between major asset classes; h. However, smaller-scale shifts and tilts across asset class segments can add incremental value when based on sound relative value judgments.

across asset class segments can add incremental value if based on sound relative value judgments. While it is impossible to perfectly predict what markets will do, there is evidence that markets, in some environments, are more conducive to generating expected returns than others. Investors may improve their risk and reward profiles by identifying these market environments and rotating assets accordingly.

<u>LL</u>everage is a financial tool that can be. When leverage is used to pursue higher expected returns, expected risk also is likely to rise. However, leverage can also be utilized in a prudent and thoughtful manner to help better balance risk exposures, and, in turn, enhance the risk/return profile of a portfolio.

Recognizing that investment scalability is an important issue, the CIO and staff have the authority to consider and pursue smaller/capital constrained opportunities if significant value-added potential exists.

Document #3

Virginia Retirement System (VRS) Defined Benefit Plan

Investment Beliefs Statements

Approved by the Board of Trustees: September 8, 2015

I. Introduction

The VRS Board of Trustees (Board) developed Investment Beliefs to help guide the strategic management of the VRS investment portfolio. These Investment Beliefs represent a high-level framework for making decisions that require balancing multiple, and competing, factors. In addition, the Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on maintaining the long-term commitment to provide benefits to participants.

II. VRS Investment Beliefs Statements

With the assistance of an outside expert, the Board developed the following Investment Beliefs Statements to guide the Board's decisions and provide an anchor to the Board's stated goals and objectives.

- 1) The primary objective of the VRS investment portfolio is to achieve the highest level of return for a given level of risk over the long term.
- 2) In order to achieve the necessary long-term returns, VRS focuses on two premiums that typically reward long-term investors: the equity risk premium and the illiquidity risk premium. Both risk premiums vary over short to intermediate periods; however, over longer horizons, both risk premiums have historically produced positive returns.
- 3) VRS has the size and capabilities to pursue global opportunities, which offer a vast array of investments across a wide spectrum of domestic and international markets.
- 4) Diversification can take the form of exposure or time:
 - Multiple asset classes/risk premiums enhance the return-risk tradeoff of VRS' investment portfolio, particularly over short-to-intermediate horizons.
 - b. Vintage year diversification, as well as dollar-cost averaging, in and out of investments helps mitigate the impact of market volatility.

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- 5) With respect to VRS' investments, the VRS Board has two key roles:
 - a. Establish the overall level of investment risk for the Fund:
 - i. <u>Total Risk</u> (range of outcomes that the VRS total portfolio is likely to experience). Total risk is determined largely by the Strategic Allocation Policy as set by the Board. Total risk is the larger of the two risks.
 - ii. Relative Risk (range of outcomes in relation to Strategic Allocation Policy benchmark). Once the Board establishes this range, staff is expected to add value over the investment performance policy benchmark by an amount commensurate with that amount of relative risk allowed. While material, relative risk is typically a fraction of total risk.
 - b. Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.
- 6) VRS has the governance structure, staffing and resources to leverage the cost savings associated with managing assets in-house. Given these attributes, staff should continue to explore further expansion of internal capabilities in areas that leverage staff's expertise in a cost-effective manner.
- 7) VRS has a long history of investment innovation and the Board encourages staff to continue to explore, access and implement creative investment approaches and strategies. Staff is expected to monitor new initiatives closely, and the Board recognizes that not all may develop into permanent strategies.
- 8) Costs (management fees, commissions, transaction costs, etc.) related to managing the VRS investment program are significant and have a material impact upon long-term performance. As an experienced, large-scale investor, VRS will seek to maximize its negotiating leverage to manage its assets in a costeffective manner
- 9) Portfolio management is an active and dynamic process. Market inefficiencies exist in varying degrees across and within all asset classes in which VRS invests. Using both internal and external management capabilities, VRS can add value exploiting these inefficiencies

- 10) As VRS conducts its investment activities, it seeks to strike a balance among three competing objectives:
 - a. <u>Achieving Long Term Funding Progress</u> In order to achieve long term funding goals, VRS must allocate to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce volatility into the Fund.
 - b. Avoiding Short Term Drawdown Risk Higher exposures to equity and liquidity risk increase the probability of large short-term mark-to-market declines in the Fund's value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.
 - c. <u>Avoiding Contribution Volatility</u> Short term mark-to-market declines in the Fund's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, thus requiring higher overall contribution rates and raising long term costs for employers.
- 11) VRS believes it is difficult to successfully add value by making frequent, large scale shifts between major asset classes; however, smaller-scale shifts and tilts across asset class segments can add incremental value when based on sound relative value judgments.
- 12) Leverage is a financial tool that can be utilized in a prudent and thoughtful manner to help balance risk exposures, and in turn, enhance the risk/return profile of a portfolio.

Virginia Retirement System (VRS) Defined Benefit Plan Investment Beliefs Statements

Approved by the Board of Trustees: September 8, 2015

I. Introduction

The VRS Board of Trustees (Board) developed a set of Investment Beliefs intended to help guide the strategic management of the VRS investment portfolio. These Investment Beliefs represent a high-level framework for making decisions that require balancing multiple, and competing, factors. In addition, the Investment Beliefs provide context for VRS actions and reflect VRS values, with a focus on maintaining the long-term commitment to provide benefits to participants.

II. VRS Investment Beliefs Statements

With the assistance of an outside expert, the Board developed the following Investment Beliefs Statements to guide the Board's decisions and provide an anchor to the Board's stated goals and objectives.

Goals and Objectives

- 1) The primary objective of the VRS investment portfolio is to achieve the highest level of return for a given level of risk over the long term.
- 2) With respect to VRS' investments, the VRS Board has two key roles:
 - a. Establish the overall level of investment risk for the Fund:
 - i. Total Risk (range of outcomes that the VRS total portfolio is likely to experience). Total risk is determined largely by the Strategic Allocation Policy as set by the Board. Total risk is the larger of the two risks.
 - ii. Relative Risk (range of outcomes in relation to Strategic Allocation Policy benchmark). Once the Board establishes this range, staff is expected to add value over the investment performance policy benchmark by an amount commensurate with that amount of relative risk allowed. While material, relative risk is typically a fraction of total risk.

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a. Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.

b.

- 3) As VRS conducts its investment activities, it seeks to strike a balance among three competing objectives:
 - a. Achieving Long Term Funding Progress In order to achieve long term funding goals, VRS must allocate to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce volatility into the Fund.
 - b. Avoiding Short Term Drawdown Risk Higher exposures to equity and liquidity risk increase the probability of large short-term mark-to-market declines in the Fund's value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.
 - c. Avoiding Contribution Volatility Short term mark-to-market declines in the Fund's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, thus requiring higher overall contribution rates and raising long term costs for employers.

VRS Access and Structural Advantages

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- 3)4) In order to achieve the necessary long-term returns, VRS focuses on two premiums that typically reward long-term investors: the equity risk premium and the illiquidity risk premium. Both risk premiums vary over short_-to_-intermediate periods; however, over longer horizons, both risk premiums have historically produced positive returns.
- 4)5) VRS has the size and capabilities to pursue global opportunities, which offer a vast array of investments across a wide spectrum of domestic and international markets.
- 5)6) Diversification can take the form of exposure or time:

- a. <u>M</u>multiple asset classes/risk premiums enhance the return-risk tradeoff of VRS' investment portfolio, particularly over short-to-intermediate horizons.
- b. Vvintage year diversification, as well as dollar-cost averaging, in and out of investments helps mitigate the impact of market volatility.

<u>As VRS conducts its investment activities, it seeks to strike a balance among three competing objectives:</u>

Achieving Long Term Funding Progress – In order to achieve long term funding goals, VRS must allocate to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce volatility into the Fund.

Avoiding Short Term Drawdown Risk — Higher exposures to equity and liquidity risk increase the probability of large short-term mark-to-market declines in the Fund's value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.

Avoiding Contribution Volatility — Short term mark-to-market declines in the fund's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, thus requiring higher overall contribution rates and raising long term costs for employers.

7) Portfolio management is an active and dynamic process. Market inefficiencies exist in varying degrees across and within all asset classes in which VRS invests.

Using both internal and external management capabilities, VRS can add value exploiting these inefficiencies.-

Staff Implementation Parameters

- 7) With respect to VRS' investments, the VRS Board has two key roles:
- 8)—
- 9) Establish the overall level of investment risk for the Fund:
- 10)-
- 11) <u>Total Risk</u> (range of outcomes that the VRS total portfolio is likely to experience). Total Risk is determined largely by the Strategic Allocation Policy as set by the Board. Total Risk is the larger of the two risks.
- 12)
- 13) Relative Risk (range of outcomes in relation to Strategic Allocation Policy benchmark). Once the Board establishes this range, staff is expected to add-value over the investment performance policy benchmark by an amount commensurate with that amount of Relative Risk allowed. While material, Relative Risk is typically a fraction of Total Risk.
- 14)
- 15) Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.
- VRS has the governance structure, staffing, and resources to leverage the cost savings associated with managing assets in-house. Given these attributes, staff should continue to explore further expansion of internal capabilities in areas that leverage staff's expertise in a cost-effective manner.
- VRS has a long history of investment innovation and the Board encourages staff to continue to explore, access, and implement creative investment approaches and strategies. Staff is expected to monitor new initiatives closely, and the Board recognizes that not all may develop into permanent strategies.
- 48)10) Costs (management fees, commissions, transaction costs, etc.) related to managing the VRS investment program are significant and have a material impact upon long-term performance. As an experienced, large-scale investor, VRS will seek to maximize its negotiating leverage to manage its assets in a cost-effective manner.

Portfolio management is an active and dynamic process. Market inefficiencies exist invarying degrees across and within all asset classes in which VRS invests. Using both internal and external management capabilities, VRS can add value exploiting these

inefficiencies.

5)11) VRS believes it is difficult to successfully add value by making frequent, large scale shifts between major asset classes; however, smaller-scale shifts and tilts across asset class segments can add incremental value when based on sound relative value judgments.

As VRS conducts its investment activities, it seeks to strike a balance among three-competing objectives:

<u>Achieving Long Term Funding Progress</u> — In order to achieve long term funding goals, VRS-must allocate to asset classes and strategies that take advantage of equity and illiquidity risk factors. Such allocations introduce volatility into the Fund.

Avoiding Short Term Drawdown Risk — Higher exposures to equity and liquidity risk increase the probability of large short-term mark-to-market declines in the Fund's value. However, investment strategies to avoid shortfall risk may lead to a reduced long-term investment return, increasing the likelihood of falling short of long-term funding goals.

<u>Avoiding Contribution Volatility</u> — Short term mark-to-market declines in the fund's value can cause intermediate term increases in required contribution rates. However, investment strategies that seek to reduce volatility may lead to a reduced long-term investment return, thus requiring higher overall contribution rates and raising long term costs for employers.

VRS believes it is difficult to successfully add value by making frequent, large scale shifts between major asset classes; however, smaller-scale shifts and tilts across asset class segments can add incremental value when based on sound relative value judgments.

6)12) Leverage is a financial tool that can be utilized in a prudent and thoughtful manner to help balance risk exposures, and in turn, enhance the risk/return profile of a portfolio.

Virginia Retirement System (VRS) Defined Benefit Plan Investment Beliefs Statements

Approved by the Board of Trustees: September 8, 2015

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- b. Establish and monitor investment guidelines that are then delegated to staff to implement consistent with the risks above.
- 3) As VRS conducts its investment activities, it seeks to strike a balance among three competing objectives:
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VRS Access and Structural Advantages

- 4) In order to achieve the necessary long-term returns, VRS focuses on two premiums that typically reward long-term investors: the equity risk premium and the illiquidity risk premium. Both risk premiums vary over short to intermediate periods; however, over longer horizons, both risk premiums have historically produced positive returns.
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