



November 9, 2023

MEMORANDUM

TO: VRS Board of Trustees

FROM: Patricia S. Bishop
Director

RE: Agenda Materials for November 16th Board Meeting

We are looking forward to the November 16th Board meeting beginning at 1:00 p.m. in the VRS Boardroom located at 1111 East Main Street, Bank of America - Pavilion Building, 3rd floor. Enclosed are the agenda and meeting materials. Boxed lunches will be available beginning at 11:30 a.m.

Listed below is a recap of the meetings scheduled for next week:

Meeting	Date	Location
Investment Advisory Committee	Wednesday, November 15 th , 9:00 a.m.	Bank of America Pavilion, 1111 E. Main St., 3 rd floor conference room
Benefits and Actuarial Committee	Thursday, November 16 th , 10:00 a.m.	Bank of America Pavilion, 1111 E. Main St., 3 rd floor conference room
Board of Trustees	Thursday, November 16 th , 1:00 p.m.	Bank of America Pavilion, 1111 E. Main St., 3 rd floor conference room

Again, we look forward to seeing you next week. If you have any questions, please feel free to contact me.

Attachments

cc: The Honorable Stephen E. Cummings, Secretary of Finance
Craig Burns, Department of Taxation
Michael Jay, House Appropriations Committee
April Kees, Senate Finance Committee
Mike Tweedy, Senate Finance Committee
Zack Borgerding, Auditor of Public of Accounts
Jon Howe, Department of Planning and Budget
Dean Lynch, VA Association of Counties
Katie Boyle, VA Association of Counties
Bea Snidow, VA Education Association
Jamie Bitz, Joint Legislative Audit & Review Commission
Kimberly Sarte, Joint Legislative Audit & Review Commission
Hal Greer, Joint Legislative Audit & Review Commission
Elizabeth B. Myers, Office of the Attorney General

Josette Bulova, VA Municipal League
Lawrence Kochard, VRS Investment Advisory Committee
Bonnie Atwood, VA Retired Teachers Association



Board of Trustees Meeting
VRS, 1111 E. Main St., 3rd Floor Board Room
Thursday, 11/16/2023
1:00 - 3:30 PM ET

I. Approve Minutes

Board Minutes 10.19.23 - Page 5

II. Report of the Investment Advisory Committee

III. Report of the Chief Investment Officer

Chief Investment Officer Report - November 23 - Page 10

Asset Allocation Report - September 23 - Page 18

Daily Asset Allocation Report 11-07-23 - Page 19

Performance Summary 9-30-23 - Page 20

Plan Tracking Error - Page 21

New Investments and Terminations 11-16-23 - Page 22

Jummai Sarki-Hurd Recognized - Page 23

ALM Update - November 23 - Page 24

- **RBA – Approve Revised Defined Benefit Plan Investment Policy Statement**
RBA - Approve Revised Defined Benefit Plan Investment Policy Statement - Page 45
VRS Defined Benefit Plan Investment Policy Statement - red line - Page 46
VRS Defined Benefit Plan Investment Policy Statement - black line - Page 50
- **RBA – Approve Revised Defined Benefit Plan Investment Belief Statements**
RBA - Approve Revised Defined Benefit Plan Investment Belief Statements - Page 54
VRS Investment Belief Statements - red line - Page 55
VRS Investment Belief Statements - black line - Page 58
- **RBA – Approve VRS Investment Leverage Policy**
RBA - Approve VRS Investment Leverage Policy - Page 61
Draft VRS Investment Leverage Policy - Page 62
- **RBA – Approve FY24 DB Plan Asset Allocation**
RBA - Approve FY24 DB Plan Asset Allocation - Page 65
Appendix 1 - as of July 1 2023 - Page 67
Appendix 1 - as of January 1 2024 - Page 69
- **RBA – Approve Public Equity, MAPS, DStrat, RBI, and Leverage Benchmarks**
RBA - Approve Public Equity, MAPS, DStrat, RBI, and Leverage Benchmarks - Page 71
Appendix 1 - as of July 1 2023 - Page 73
Appendix 1 - as of January 1 2024 - Page 75

IV. CEM Cost Effective Analysis of VRS Investment Program

CEM Presentation - Investments - Page 77

V. Report of the Benefits and Actuarial Committee

B&A Report 11.16.2023 - Page 94

- **RBA – Certify the Contribution Rates for Political Subdivision Retirement Plans, the Health Insurance Credit for Certain Political Subdivisions, the Virginia Local Disability Program and the Line of Duty Act Fund, Effective for FY 25 and FY 26**
RBA - Rates for PoliSubs_HIC_VLDP_LODA - Page 96
GRS Actuarial Valuation Results_Board - Page 98

GRS LODA_Presentation - Page 134

VI. Corporate Governance Report

Corporate Governance Report FY23 - Page 162

Exhibit 1 - Proxy Voting and Litigation Policy - September 2018 - Page 165

Exhibit 2 - 2023 Global Board-Aligned Proxy Voting Guidelines United States - Page 174

Exhibit 3 - Managers Not Using VRS Selected ISS Policy - FY23 - Page 240

VII. Report of the Director

FY 24 Agency Roadmap Update - October - Page 241

Director's Report - Page 243

Minutes

A regular meeting of the Virginia Retirement System Board of Trustees was held on October 19, 2023, in Richmond, Virginia with the following members participating:

Board members:

A. Scott Andrews, Chair
Joseph W. Montgomery, Vice Chair (*remotely under § 2.2-3708.3(B)(1)*)
Hon. J. Brandon Bell, II
John M. Bennett
Michael P. Disharoon
Susan T. Gooden, Ph.D.
Jessica L. Hood (*remotely under § 2.2-3708.3(B)(4)*)
W. Brett Hayes
Lindsey K. Pantele

VRS Staff:

Patricia Bishop, Jennifer Schreck, Andrew Junkin, Rory Badura, Parham Behrooz, Jeanne Chenault, Paula Reid, Michael Cooper, David Cotter, Juanita Cribbs, Sara Denson, Dan Schlussler, Tom Coleman, JT Grier, John Alouf, Dane Honrado, KC Howell, Robert Irving, Ross Kasarda, LaShaunda King, Matt Lacy, Chung Ma, Curt Mattson, Walker Noland, Greg Oliff, Angela Payne, Steven Ramirez, Mark Rein, Rob Voeks, Kristina Koutrakos, Leslie Weldon, Dan Whitlock, Cindy Wilkinson, Steve Woodall, Emily Trent and Scott Weaver.

Guests:

Jim Anderson, Becky Stouffer and Kurt Dosson, Gabriel, Roeder, Smith & Company; Jeremy Bennett, Virginia Association of Counties; Josette Bulova, Virginia Municipal League; and Elizabeth Myers, Office of the Attorney General.

The meeting convened at 1:00 p.m.

Opening Remarks

Mr. Andrews called the meeting to order and welcomed everyone to the October 19, 2023, meeting of the Virginia Retirement System Board of Trustees.

Approval of Minutes

Following a motion by Mr. Disharoon, and a second by Mr. Hayes, the VRS Board of Trustees unanimously approved the minutes from its September 21, 2023, meeting.

Report of the Chief Investment Officer

Andrew Junkin, Chief Investment Officer, began his report with a market overview and discussed asset allocation, total fund portfolio and tracking error, concluding that risk measures are within Board-approved levels.

Next, Mr. Junkin discussed the New Investment and Terminations report, the Diverse Investment Manager Engagement (DIME) report, and the External Investment Manager Referral report.

Mr. Andrews thanked Mr. Junkin for his report.

Report of the Benefits and Actuarial Committee

The VRS Board of Trustees received the report of the Benefits and Actuarial Committee and placed it on file.

APPROVAL OF MINUTES

The Committee approved the minutes of its June 14, 2023, meeting.

GABRIEL, ROEDER, SMITH & COMPANY (GRS), 2023 ACTUARIAL VALUATION RESULTS FOR FIVE STATEWIDE RETIREMENT PLANS, GROUP LIFE INSURANCE, STATE AND TEACHER RETIREE HEALTH INSURANCE CREDIT, AND THE VIRGINIA SICKNESS AND DISABILITY PROGRAM (INCLUDES SELF-FUNDED LONG-TERM CARE) AND FUNDING POLICY AMENDMENTS

Jim Anderson and Becky Stouffer from the VRS plan actuary, Gabriel, Roeder, Smith & Company (GRS), presented the June 30, 2023, actuarial valuations for the Five Statewide Retirement Plans, Group Life Insurance, State and Teacher Health Insurance Credit, and the Virginia Sickness and Disability Program. The VRS actuary conducts annual valuations as of the close of the fiscal year (June 30). In odd-numbered years the valuations are used to establish employer contribution rates for the upcoming biennium. The results in even-numbered years are shared with the Board of Trustees to inform the Board of any emerging trends or indications of the magnitude and direction of contribution rates.

Key points from the presentation include:

- The June 30, 2023, valuations will be used to set the contribution rates for fiscal years 2025 and 2026.
- Unfunded liability as of June 30, 2023, was re-amortized over a 20-year period, collapsing bases created from 2013-2023 into one new base.
- Pension rates no longer contain an estimate of the DC hybrid employer contributions, representing only the defined benefit portion of the employer contributions.
- Pension rates for State, Teachers, and VaLORS are lower than the rates paid during fiscal years 2023 and 2024. SPORS and JRS experienced slight increases in rates year over year.
- OPEB rates all trended lower, but funded levels remain well below desired level. Maintaining prior year contribution rates for the OPEB plans would provide necessary additional funding to improve the health of the plans.

Mr. Andrews thanked Mr. Anderson and Ms. Stouffer for their presentation and turned the floor back to Mr. Bennett. Mr. Bennett continued his report, noting Rory Badura, Senior Staff Actuary, presented three proposed changes to the VRS Funding Policy Statement, including:

- Resetting the total unfunded accrued liability as of June 30, 2023, over 20 years.

- Explicit funding requirements associated with modifying the health insurance credit programs will require employers to provide a lump sum payment prior to the enhancement of benefits or coverage based on the funded status of their plan prior to the election.
- Confirming the Stress Testing Report will be issued regularly instead of annually.

Upon a motion by Mr. Bennett, with a second by Mr. Hayes, the VRS Board of Trustees approved the following action:

RBA: Amendments to the VRS Funding Policy Statement

Request for Board Action 2023-10-23: *The VRS Board of Trustees approves the amendments to the VRS Funding Policy Statement to Allow for Resetting of Total Unfunded Accrued Liability as of June 30, 2023, Over 20 Years; Establish Employer Funded Status When Modifying the HIC Programs, and Confirm that Stress Testing Report is to be issued Regularly Instead of Annually.*

Upon a motion by Mr. Bennett, with a second by Mr. Disharoon, the VRS Board of Trustees approved the following action:

RBA: Certify the contribution rates for the Five Statewide Retirement Plans and associated OPEBs effective for FY 2025 and FY 2026

Request for Board Action 2023-10-24: *The VRS Board of Trustees certifies the contribution rates for the Five Statewide Retirement Plans and associated OPEBs effective for FY 2025 and FY 2026.*

INFORMATION ITEM

Stress Test and Sensitivity Analysis Report

Mr. Bennett advised the Board that the Stress Test and Sensitivity Analysis Report was provided to the General Assembly and published as required on the Legislative Information System.

B&A Committee Meeting Schedule:

- November 16 at 10:00 a.m. (Local Valuations and Line of Duty Act)

Mr. Andrews thanked Mr. Bennett for his report. Mr. Andrews next thanked GRS and the VRS staff actuaries for their hard work in developing, validating and delivering the results.

Legislative Package for the 2024 General Assembly Session

Cindy Wilkinson, Director of Policy, Planning and Compliance, presented the proposed legislative package for the 2024 General Assembly Session to the Board. The first legislative proposal adds service from all branches of armed services to the list of branches included for purposes of purchasing prior service. The *Code of Virginia* currently specifies that members of the United States Army, Navy, Air Force, Marines and Coast Guard may purchase active-duty military service, but the list does not include the Space Force. Since the Space Force was established in 2019, a technical amendment is needed in §

51.1-142.2(A) so that active-duty service with this branch, and any others that may be subsequently created, can be purchased.

The second proposed legislative change allows escheatment for defined contribution (DC) accounts that have been unclaimed for a period of more than five years. No VRS accounts may currently be escheated under the current exemption in § 55.1-2544 for any property held or payable pursuant to Title 51.1. Thus, VRS must hold DC plan accounts with relatively low balances indefinitely if the participant cannot be found. VRS is an outlier in the DC plan industry as most plans escheat DC accounts. Currently, VRS has close to 12,000 stale-dated DC plan participant checks. These checks are managed by spreadsheets generated when VRS changes recordkeepers. The average check is \$119.50 and the median is \$66.23, and 10,000 of these checks fall between the amounts of \$10 and \$250. VRS expects there to be over 15,000 checks by the time it transitions to the new DC plan record keeper. The proposal does not affect Defined Benefit (DB) accounts which remain ineligible for escheatment. Unclaimed Property has higher visibility and will make it easier for participants to locate and claim these funds. The proposal has been vetted with and received support from the Virginia Department of Treasury, which administers the Commonwealth's Unclaimed Property program.

Mr. Andrews thanked Ms. Wilkinson for her presentation.

Upon a motion by Mr. Andrews, with a second by Mr. Bennett, the VRS Board of Trustees approved the proposed legislative package for the 2024 General Assembly Session.

Report of the Director

Trish Bishop, VRS Director, began her report with a review of New Coverage Elections.

Ms. Bishop announced that the Government Finance Officers Association (GFOA) presented VRS with the Certificate of Excellence in Financial Reporting for the 2022 Annual Comprehensive Financial Report (ACFR). This is the 41st report for which VRS has received the Certificate of Achievement, which is the highest form of recognition in the area of governmental accounting and financial reporting.

Next, Ms. Bishop advised the first week of October was Customer Service Week, during which VRS honored its employees for their service to members, retirees and employers. Staff enjoyed various activities, as well as coffee and treats distributed by VRS leadership. In addition, VRS is participating in the Commonwealth of Virginia Campaign which mobilizes and encourages state employees to engage in the community through giving. Staff is hosting the second annual 5k walk/run on October 28, 2023, to raise additional donations.

Ms. Bishop informed the Board that Directors Desk was updated to include technical terms, frequently used acronyms and a glossary for reference.

Lastly, Ms. Bishop advised that the agency's annual meeting will be held at the Greater Richmond Convention Center to honor the achievements of staff and to present various awards.

Mr. Andrews thanked Ms. Bishop for her report.

Other Business

Mr. Andrews reviewed the following meeting schedule:

- Investment Advisory Committee – November 15 at 9:00 a.m.
- Benefits and Actuarial Committee – November 16 at 10:00 a.m.
- Board of Trustees – November 16 at 1:00 p.m.

Adjournment

There being no further business and following a motion by Mr. Disharoon, with a second by Senator Bell, the VRS Board of Trustees agreed to adjourn the meeting at 2:08 p.m.

Chair

Secretary

Chief Investment Officer Report Market Review – November 2023 Andrew Junkin

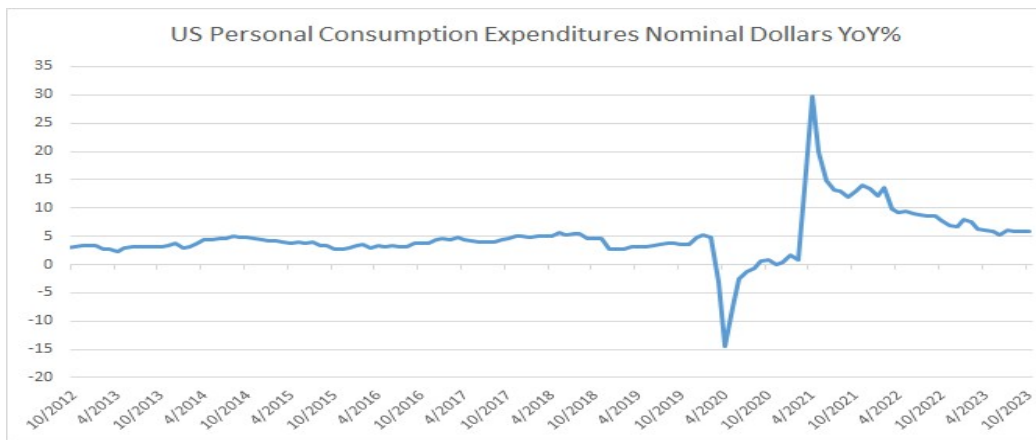
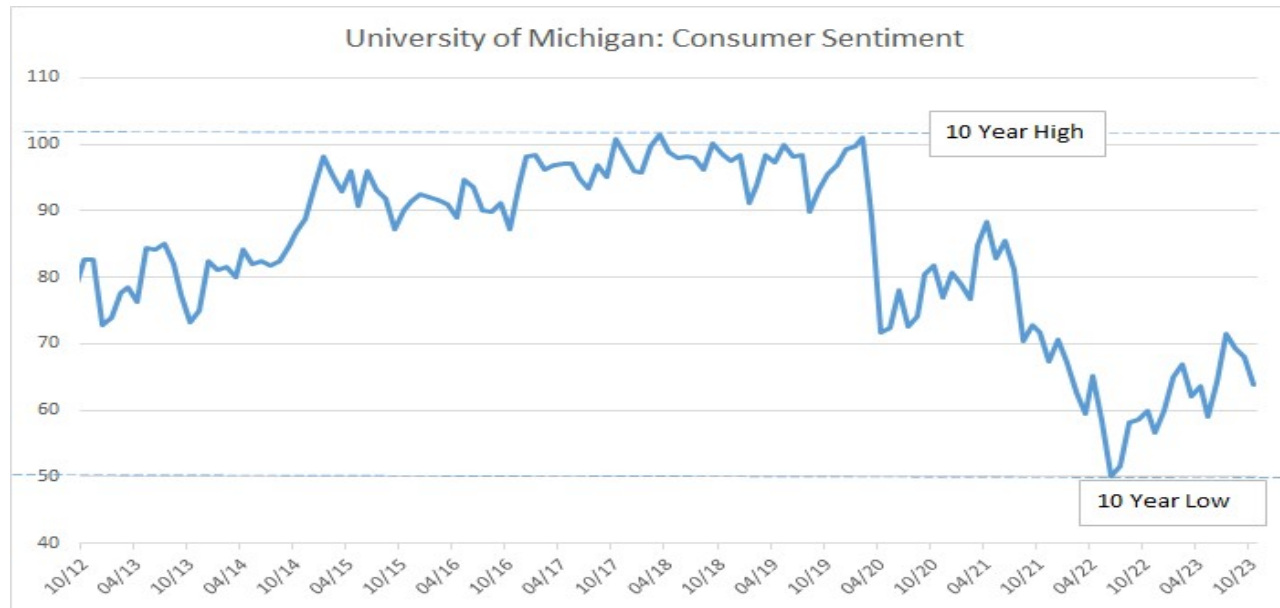


Rate Moves (10Y Nominal, Real & BEI)



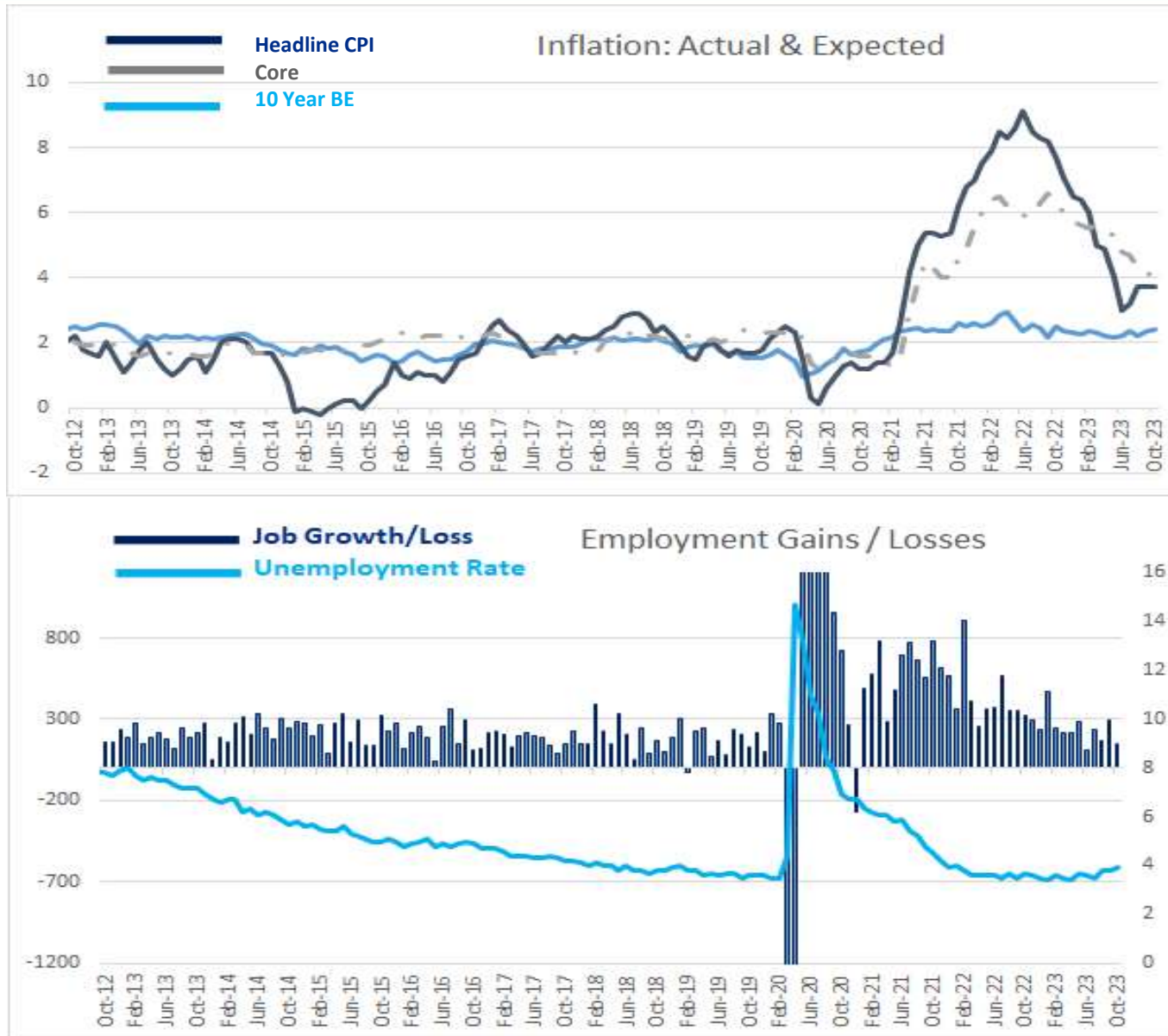
Data Source: Bloomberg

Consumer Activity



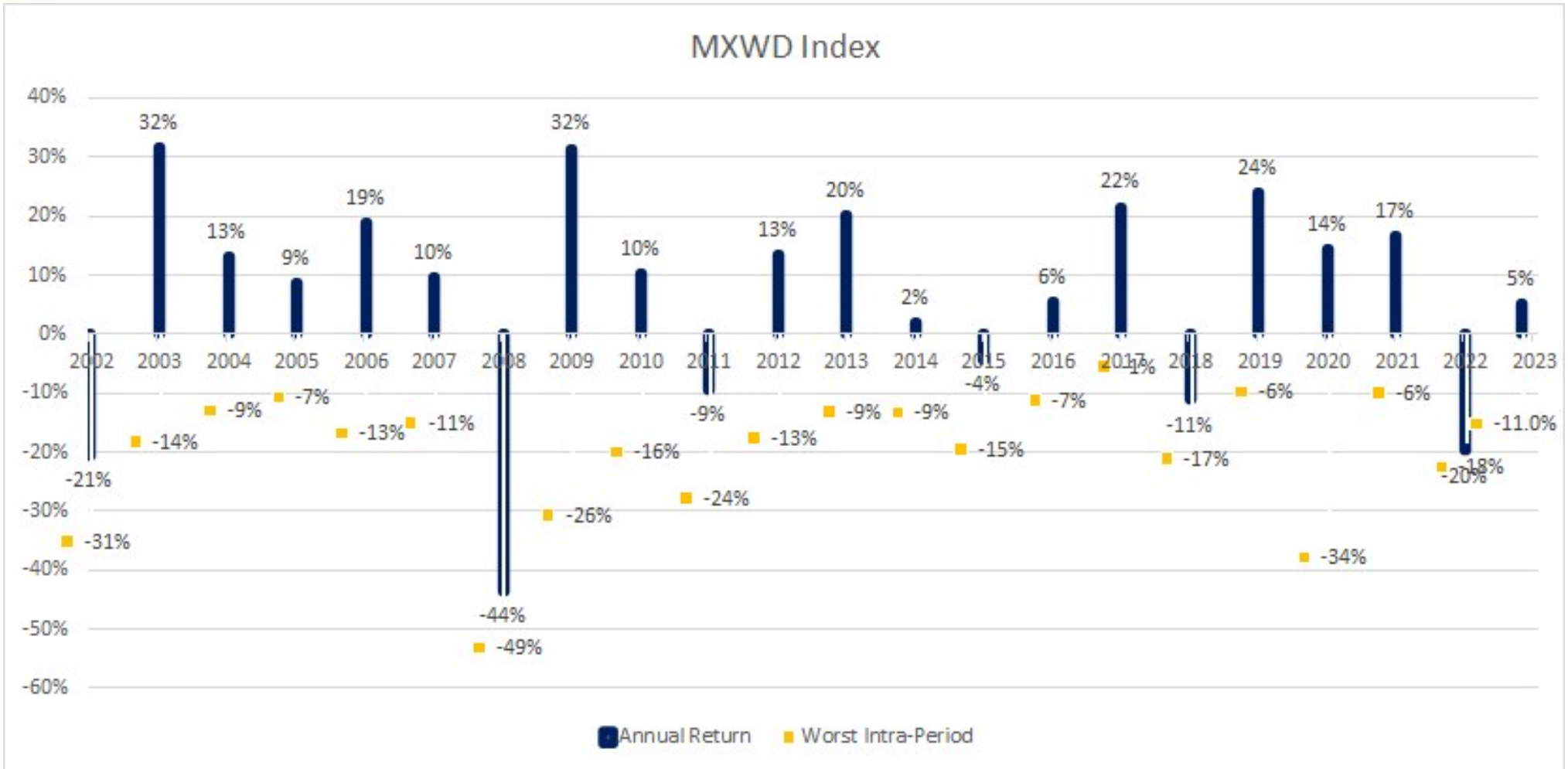
Data Source: Bloomberg

Inflation and Employment



Data Source: Bloomberg

Annual Equity Market Selloffs

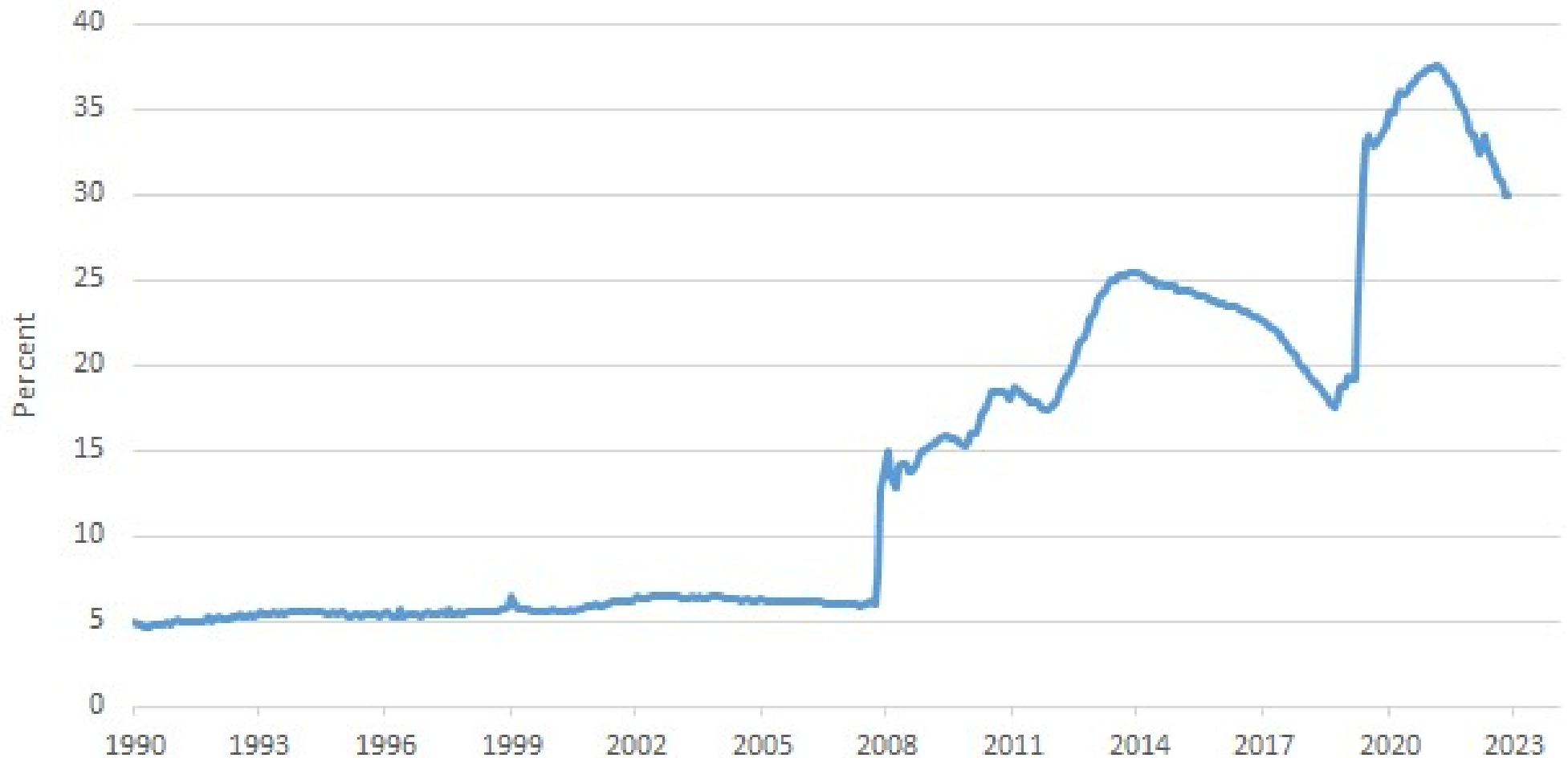


** 2023 is as of 10/31/2023

** Max draw down experienced on the 27th of October this year (-10.98%)

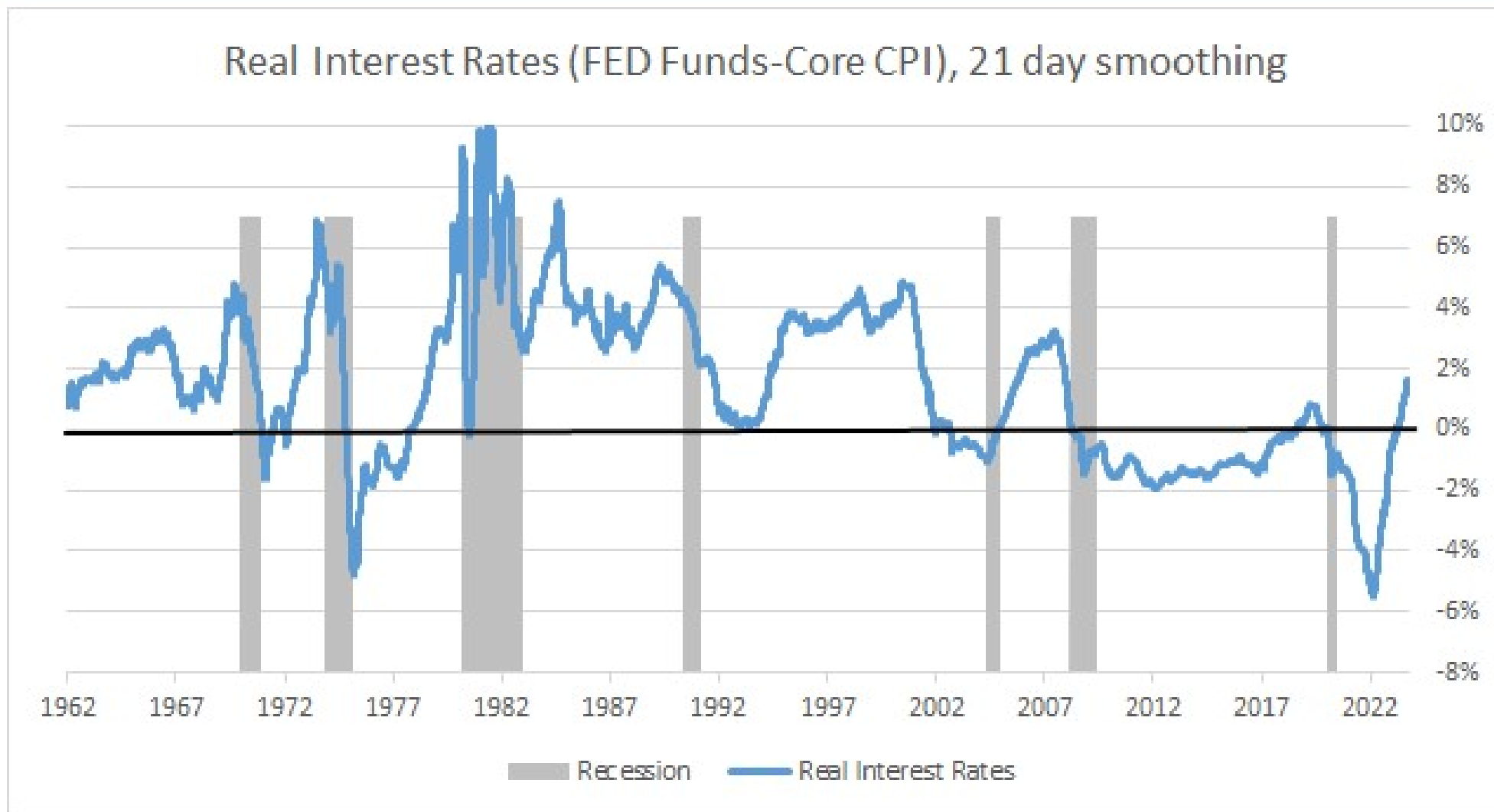
Data Source: Bloomberg

Federal Reserve Balance Sheet as a % of GDP



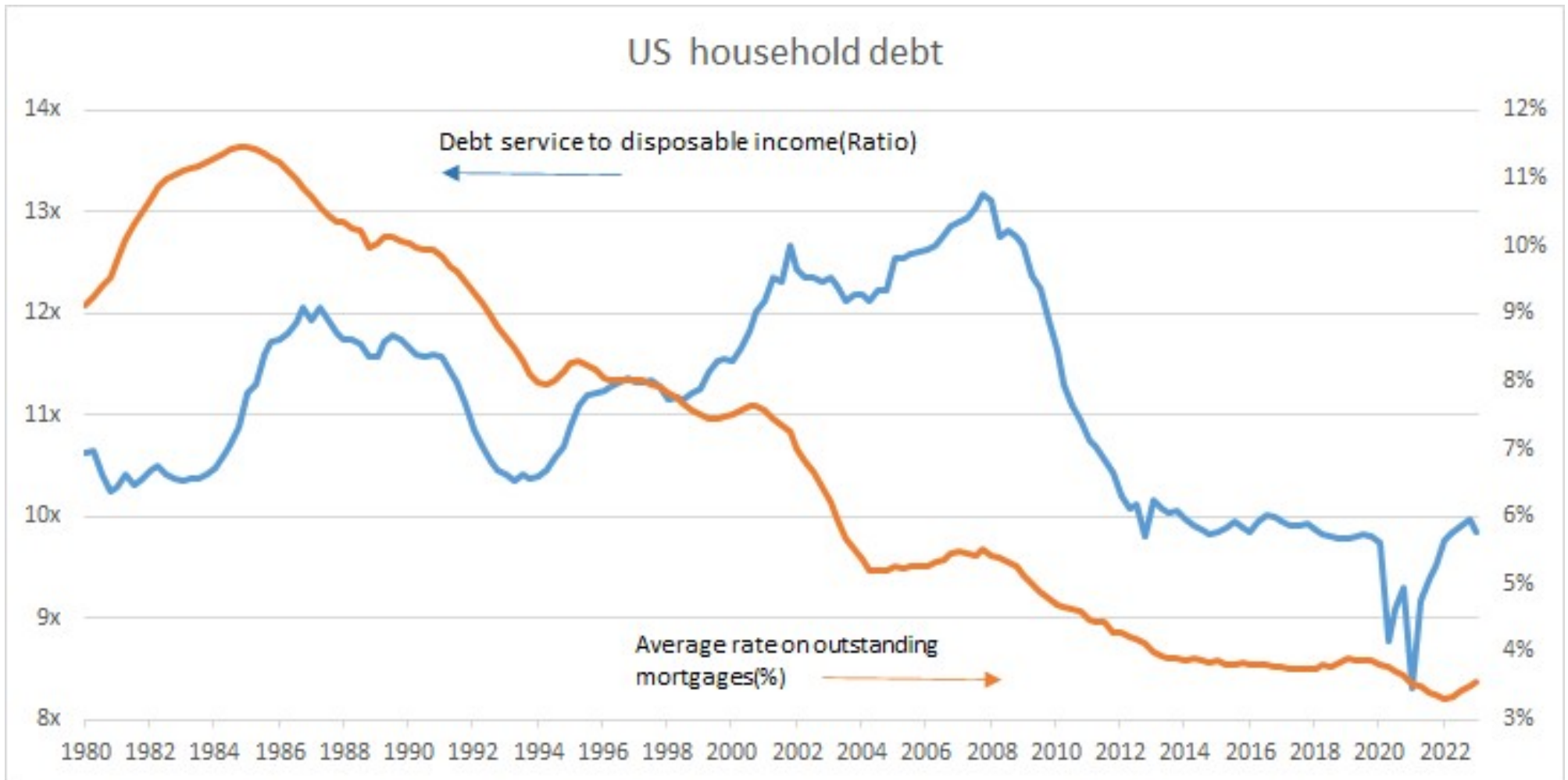
Data Source: Bloomberg

Higher Real Cost of Money

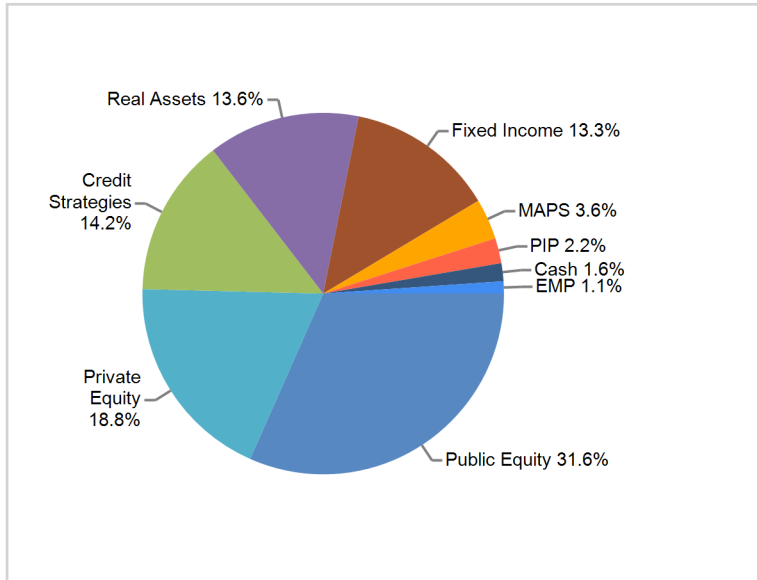


Data Source: Bloomberg

U.S. Household Debt



Data Source: Bloomberg



Tracking Error	
3Yr-Total Fund:	2.54%
3Yr-Total Public:	1.67%
5Yr-Total Fund:	2.28%
5Yr-Total Public:	1.53%

	<u>Current \$Bil</u>	<u>Current Weight</u>	<u>Policy Weight</u>	<u>Variance</u>	<u>Allowable Range</u>		<u>Internal %</u>
Total Fund	104.0						27.6%
Public Equity	32.9	31.6%	34.0%	-2.4%	-5%	+5%	47.6%
Fixed Income	13.8	13.3%	15.0%	-1.7%	-3%	+5%	94.9%
Credit Strategies	14.7	14.2%	14.0%	0.2%	-5%	+5%	
Real Assets	14.1	13.6%	14.0%	-0.4%	-5%	+5%	
Private RE	9.3	9.0%					
Other RA	0.0	0.0%					
Private Equity	19.5	18.8%	16.0%	2.8%	-5%	+5%	
MAPS	3.8	3.6%	4.0%	-0.4%	-2%	+2%	
DSTRAT	1.7	1.6%					
RBI	2.1	2.0%					0.1%
PIP	2.3	2.2%	2.0%	0.2%	-2%	+2%	
EMP	1.1	1.1%	0.0%	1.1%		+3%	
Cash	1.7	1.6%	1.0%	0.6%	-1%	+4%	

<u>High-Level Exposure</u>	<u>Current \$Bil</u>	<u>Current Weight</u>	<u>Policy Weight</u>	<u>Variance</u>	<u>Allowable Range</u>	
Total Equity	52.4	50.4%	50.0%	0.4%	-10%	10%
Fixed Income + Cash	15.5	14.9%	16.0%	-1.1%	-4%	9%

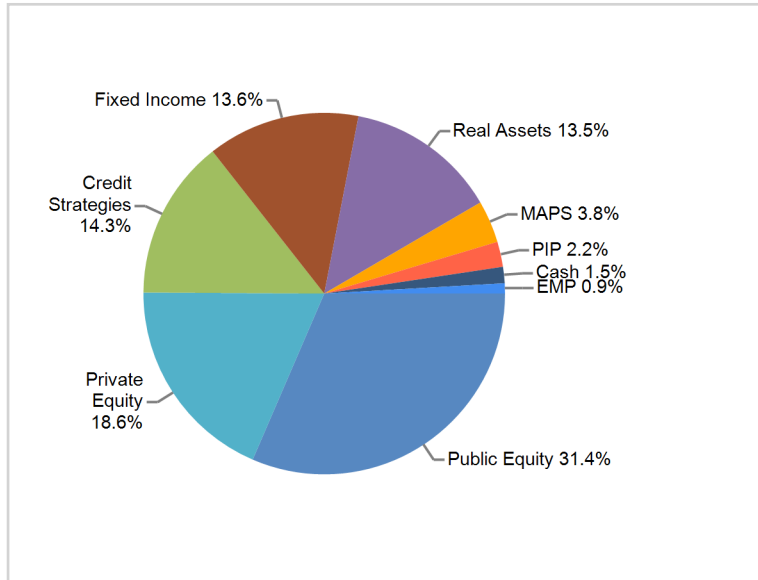
	<u>Current \$Bil</u>	<u>Current Weight</u>	<u>Policy Limit</u>
Hedge Funds	9.6	9.2%	15.0%

* Total Fund includes the following amt held by the Treasurer of VA: \$ 54 million

• The values shown for each asset class on this report may differ from the VRS Monthly Performance Report due to adjustments related to derivative positions in the Rebalance Account, pending transactions, and certain accruals. The values on this report are a more descriptive representation of the Virginia Retirement System's true economic exposure to each asset class.(6 adjustments applied)

*Total Fund and Total Public annualized tracking error is calculated using compounded quarterly returns as of 9/30/2023

* Differences in totals are due to rounding.



Tracking Error	
3Yr-Total Fund:	2.54%
3Yr-Total Public:	1.67%
5Yr-Total Fund:	2.28%
5Yr-Total Public:	1.53%

	Current \$Bil	Current Weight	Policy Weight	Variance	Allowable Range		Internal %
Total Fund	103.9						28.4%
Public Equity	32.7	31.4%	34.0%	-2.6%	-5%	+5%	48.7%
Fixed Income	14.1	13.6%	15.0%	-1.4%	-3%	+5%	95.4%
Credit Strategies	14.9	14.3%	14.0%	0.3%	-5%	+5%	
Real Assets	14.1	13.5%	14.0%	-0.5%	-5%	+5%	
Private RE	9.3	9.0%					
Other RA	4.8	4.6%					
Private Equity	19.3	18.6%	16.0%	2.6%	-5%	+5%	
MAPS	3.9	3.8%	4.0%	-0.2%	-2%	+2%	
DSTRAT	1.7	1.6%					6.5%
RBI	2.3	2.2%					0.1%
PIP	2.3	2.2%	2.0%	0.2%	-2%	+2%	
EMP	0.9	0.9%	0.0%	0.9%		+3%	
Cash	1.5	1.5%	1.0%	0.5%	-1%	+4%	

High-Level Exposure	Current \$Bil	Current Weight	Policy Weight	Variance	Allowable Range	
Total Equity	52.0	50.0%	50.0%	0.0%	-10%	10%
Fixed Income + Cash	15.7	15.1%	16.0%	-0.9%	-4%	9%

	Current \$Bil	Current Weight	Policy Limit
Hedge Funds	9.2	8.9%	15.0%

* Total Fund includes the following amt held by the Treasurer of VA: \$ 129 million

• The values shown for each asset class on this report may reflect adjustments related to derivative positions in the Rebalance Account, pending transactions and certain accruals, in order to provide a more descriptive representation of the true economic exposure to each asset class (5 adjustments applied)

*Total Fund and Total Public annualized tracking error is calculated using compounded quarterly returns as of 9/30/2023

* Differences in totals are due to rounding.

PERFORMANCE SUMMARY

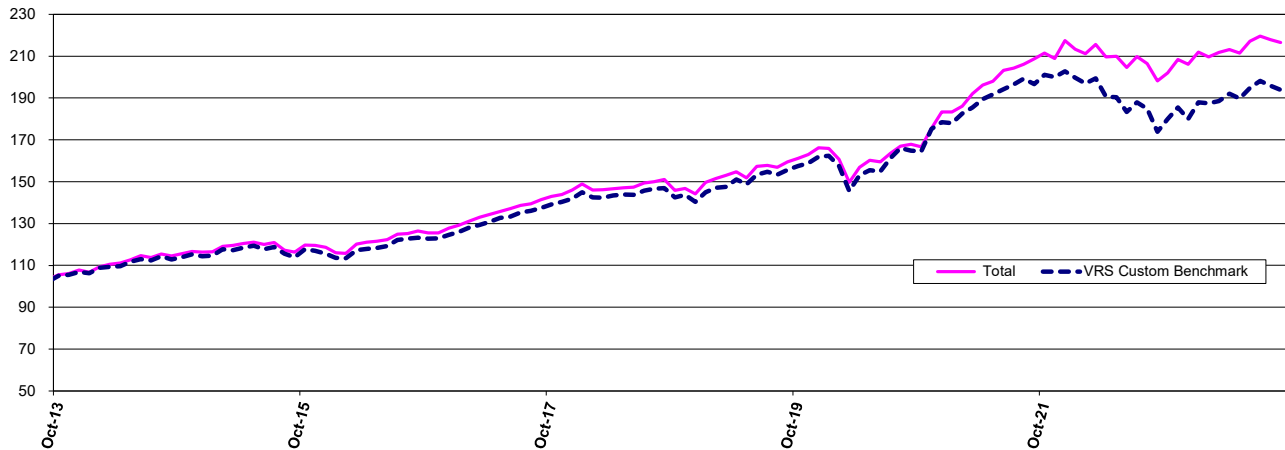
**Rolling Periods Ending
September 30, 2023**



TOTAL FUND PERFORMANCE

	10 Yr	5 Yr	3 Yr	1 Yr	Qtr	Month	Fiscal YTD	Cal YTD	Market Value (\$MM)
Total Public Equity Strategies	7.7	6.2	8.2	19.9	-2.5	-3.2	-2.5	8.5	32,892
<i>Benchmark</i>	7.7	6.5	7.3	20.7	-3.3	-4.2	-3.3	9.8	
Total Fixed Income	2.0	1.3	-3.9	2.3	-2.9	-2.4	-2.9	-0.4	13,797
<i>Benchmark</i>	1.2	0.2	-4.9	1.5	-3.0	-2.5	-3.0	-0.8	
Total Credit Strategies	6.1	6.6	7.9	9.7	3.1	2.2	3.1	8.3	14,521
<i>Benchmark</i>	4.8	4.3	3.6	11.1	1.9	-0.1	1.9	7.6	
Total Real Assets	9.6	7.9	10.6	-1.0	-0.8	-0.7	-0.8	-2.5	14,133
<i>Benchmark</i>	7.5	5.8	7.3	-4.5	-1.2	-0.4	-1.2	-5.7	
Total Private Equity	15.9	17.0	21.4	5.8	2.2	2.3	2.2	6.7	19,528
<i>Benchmark</i>	11.7	10.0	11.5	16.7	6.0	5.9	6.0	24.8	
Total Private Investment Partnerships	n/a	9.2	14.0	4.9	1.7	1.7	1.7	4.9	2,337
<i>Benchmark</i>	n/a	7.2	8.4	7.2	2.1	1.7	2.1	7.9	
Total Multi-Asset Public Strategies	n/a	4.1	6.2	11.0	0.8	0.0	0.8	6.0	3,787
<i>Benchmark</i>	n/a	4.5	3.5	10.9	-0.2	-1.2	-0.2	6.0	
Total Fund	7.7	7.5	8.9	9.3	-0.2	-0.6	-0.2	5.1	104,010
<i>VRS Custom Benchmark</i>	6.6	5.7	5.6	11.6	-0.5	-0.9	-0.5	7.8	

**10-Year Performance
Indexed to 100**



Effective July 2013, the VRS Custom Benchmark is a blend of the Asset Class Benchmarks at policy weights.

The VRS Cash Account, the Treasurer Short-Term Investment Account, the VRS Rebalancing Account, transition activity and accounts with market values of less than \$1 million are included in the Total Fund's market value. Differences in market value totals are due to rounding.

Total Fund Tracking Error



Figure 1: Policy Tracking Error Rolling Three Year - Plan (as of 09/30/2023)

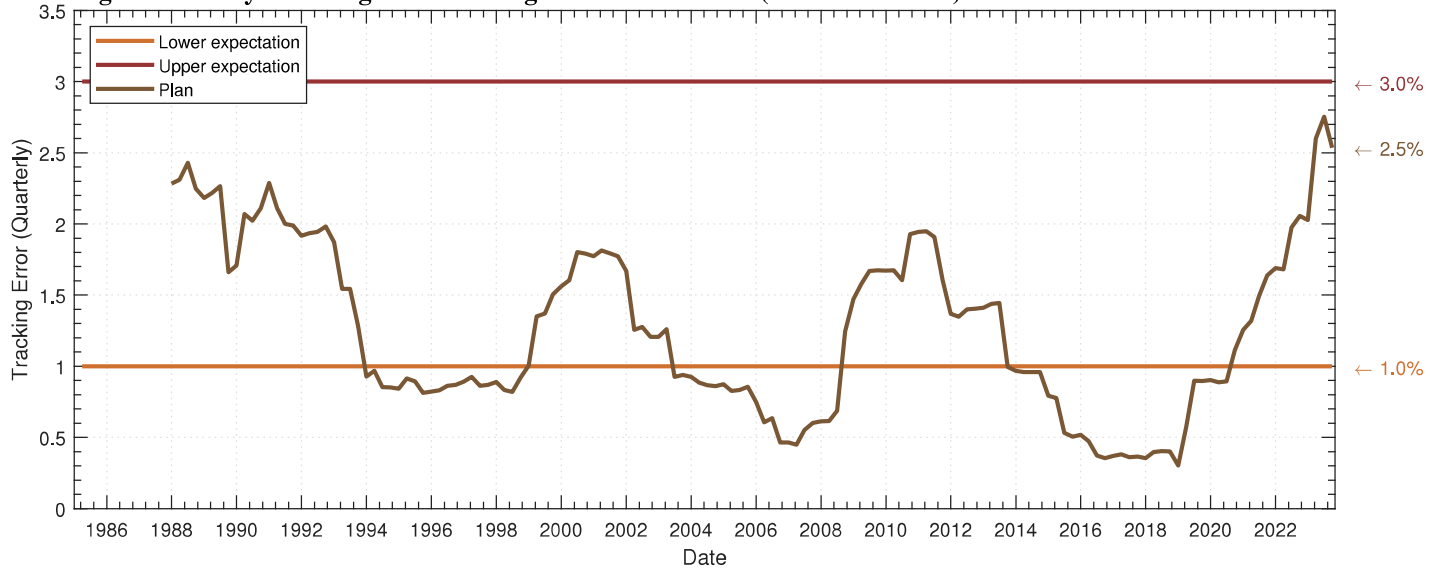
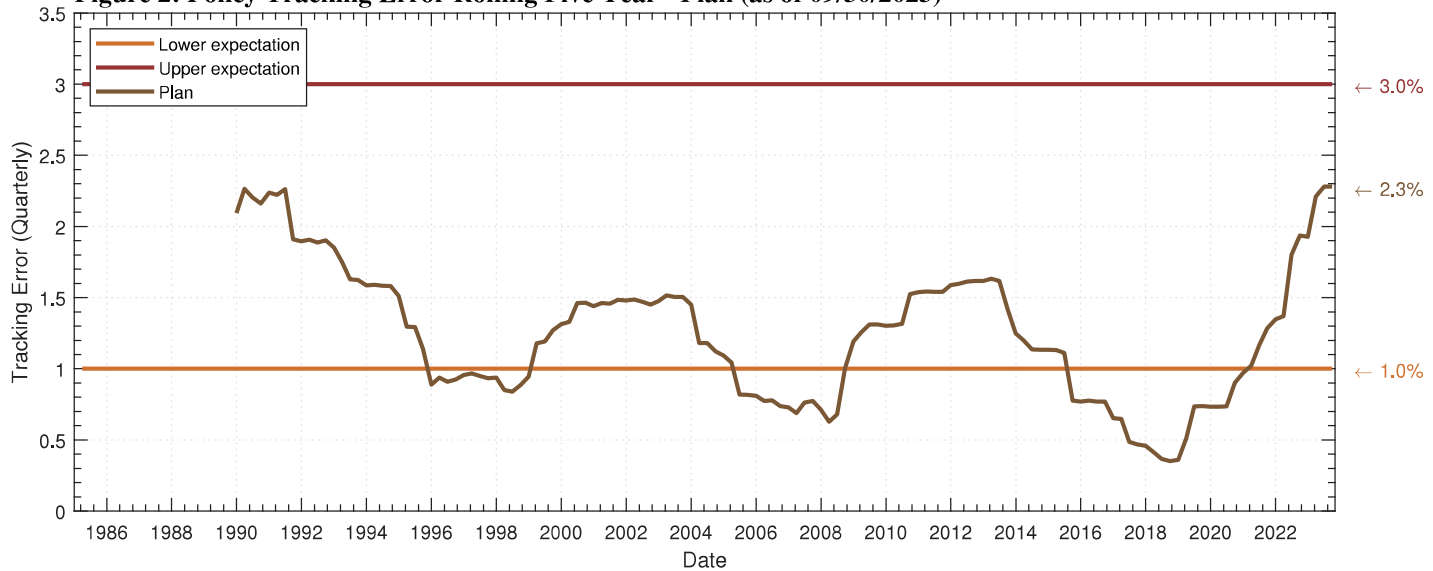


Figure 2: Policy Tracking Error Rolling Five Year - Plan (as of 09/30/2023)



The VRS Defined Benefit Plan Investment Policy Statement established the total fund tracking error range as the allowable observed tracking error calculated quarterly using 5 years of history.

Program	Action	Effective Date	Commitment/ Current Value	Funding/ Defunding Period	Description
Credit Strategies	Hired	10/18/2023	\$250 Million	3 years	Whitehorse Liquidity Partners VI - A closed-end fund targeting portfolio finance investments backed by interests in private asset portfolios.
Exposure Management Portfolio	Hired	11/01/2023	\$200 Million	Immediate	Saba Arcadia Fund – An account investing in publicly traded closed-end funds.

Jummai Sarki-Hurd Recognized

Kayo Conference Series recognized **Jummai Sarki-Hurd, VRS Portfolio Manager, Real Assets**, as a **Top 24 in '24 – Leading Allocators in Real Assets**.

Kayo recognizes spectacular leaders who are not afraid to:

- **Pursue new frontiers**
- **Explore complex ideas**
- **Examine visionary** entrepreneurs who see the world as it could be, not as it is today.

Selection is based on career field, seniority and experience.





Virginia
Retirement
System

Asset Liability Management Update

Andrew Junkin
Chief Investment Officer

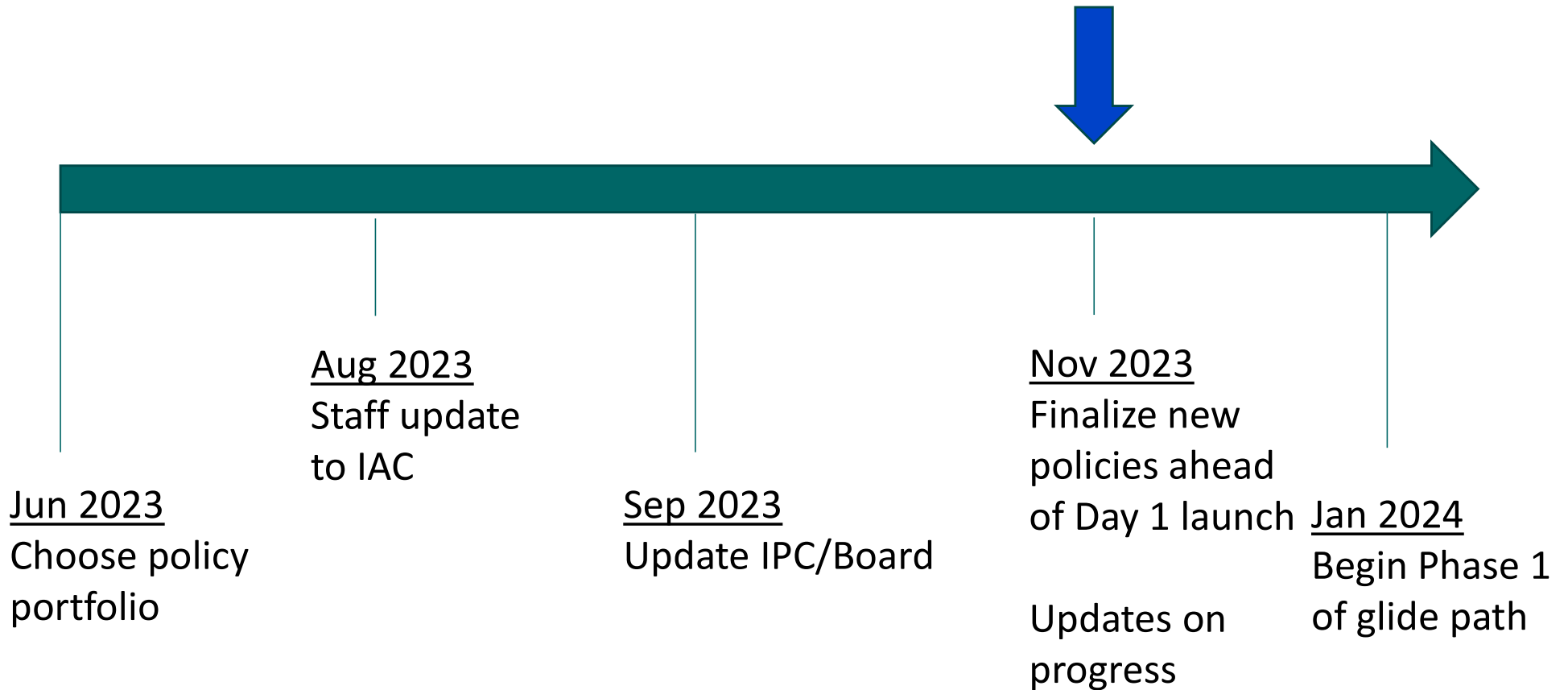
Chung Ma
Managing Director, Portfolio Solutions Group

November 2023



- Roadmap
- Expected glide path
- Implementation progress
- Takeaways

Roadmap to Launch



Expected Glide Path

Policy Weights

<u>Program</u>	<u>Dates</u>				
	<u>Current</u>	<u>Jan 2024</u>	<u>Jul 2024</u>	<u>CY 2025</u>	<u>CY 2026</u>
Public Equity	34	33	32	32	32
Fixed Income	15	16	16	16	16
Credit	14	14	14	15	16
Real Assets	14	14	14	14	15
Private Equity	16	16	16	16	15
MAPS	4	4	5	5	6
PIP	2	2	2	2	1
EMP	0	0	0	0	0
Cash	1	2	2	2	2
Leverage	0	1	1	2	3
Total	100	101	101	102	103

- Proposed asset allocation with modest defensive shifts, including 1% leverage for January 2024
- Updated and new policies drafted for review
- Initial set of funding sources chosen. Weighting will be determined by market conditions
- Continued communication and education for incorporation of asset allocation leverage into portfolio

Today

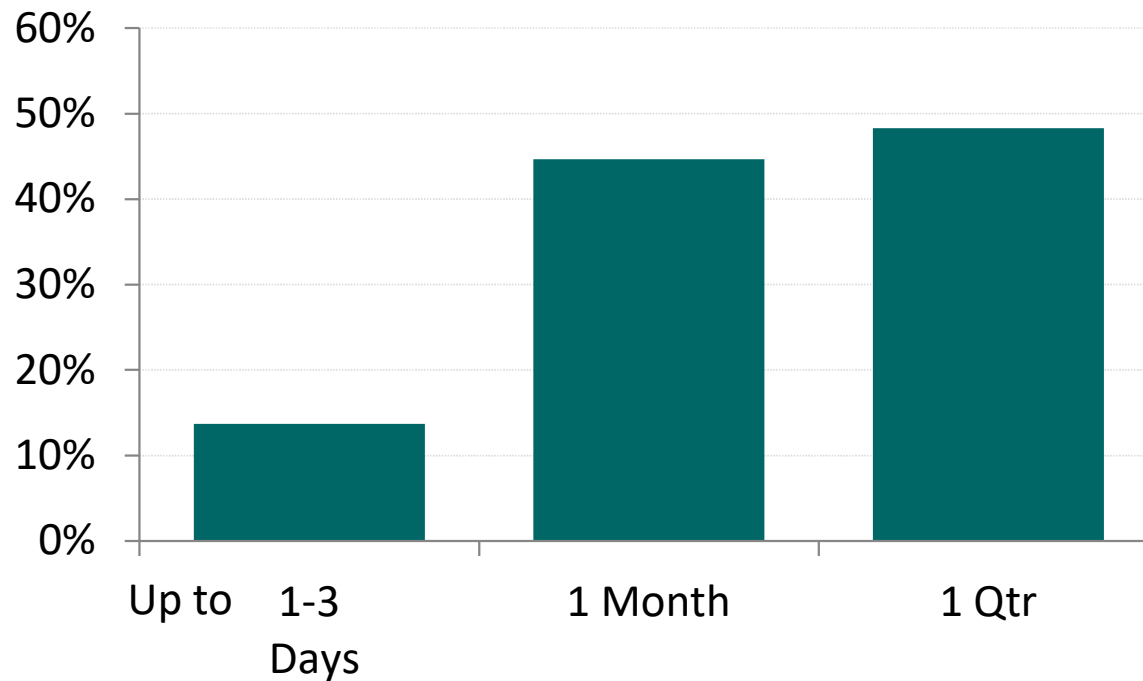
- • Update Investment Policy Statement and Investment Beliefs
- • Draft Leverage Policy
- • Identify options for funding
- • Ability to trade futures, swaps, borrow from securities lending
- • Liquidity reporting and management tools
- • Financing dashboard
- • Counterparty risk dashboard
- • Other risk management dashboards
- • Enhanced portfolio management tools – rebalance, cash flow
- • Discussion with peers on best practices
- • Complete documentation for financing options
- • Dynamic scenario and stress testing tools

- Add more diversification to defend the fund
- Implementation on target, including completion of policies that govern the asset allocation leverage process
- Glide path takes a measured pace in getting to the long-term strategic asset allocation

Appendix



Liquidity Schedule – As Percent of Fund (Cumulative)



As of September 30, 2023

ALM Update – November 2023

Financing

Regions ▾		Settings ▾		16:18:13						🔗 Swaps Markets: US RFR		
GV Ask/Chg		SOFR/GV		SOFR OIS		SOFR/FF		FOMC Forward FF		Dow Jones		
2Y	4.909 -0.024	-15.5200 -0.7900	4.7548 -0.0332	-2.3750 -0.0630	11/09/23	5.3642	DJIA	34152.60	+56.74			
3Y	4.684 -0.040	-21.8300 -0.2700	4.4660 -0.0425	-3.2500 -0.1125	11/09/23	5.3777	S&P 500 Index					
4Y	4.596 -0.051	-28.8800 -0.3800	4.3203 -0.0519	-3.6250 -0.0270	11/09/23	5.3090	S&P 500	4378.38	+12.40			
5Y	4.531 -0.057	-28.2500 -0.3700	4.2502 -0.0602	-3.9000 -0.0090	11/09/23	5.1875	NASDAQ Composite Index					
7Y	4.576 -0.066	-37.4800 -0.4800	4.2019 -0.0706	-4.2500	11/09/23	5.0400	CCMP	13639.86	+121.08			
10Y	4.569 -0.074	-37.0400 -0.4100	4.1995 -0.0799	-4.5000	11/09/23	4.8902	Bloomberg European 500					
20Y	4.911 -0.080	-69.8700 +0.3200	4.2132 -0.0763	-4.9000 -0.0250	11/09/23	4.7200	BE500	284.98	-0.47			
30Y	4.734 -0.075	-70.7500 +0.2700	4.0268 -0.0730	-5.8000 -0.0500	11/09/23	4.5557						
CME Term SOFR		BSBY Fix		AMERIBOR Fix		SOFR LCH/CME		Active Futures				
0/N	5.32000 +0.00000	5.41742 0.01416	5.46860 -0.01139	2Y	-0.2500	2 Year	101-16 ¹ / ₈	+0-01 ³ / ₄				
			5.32596 -0.06224	3Y	-0.2500	5 Year	105-18 ¹ / ₄	+0-09+				
1M	5.32197 -0.00147	5.37814 -0.00088	5.30388 -0.02865	4Y	-0.3000	10 Year	108-04+	+0-17+				
3M	5.36567 -0.00239	5.63004 0.00073	5.36241 -0.00586	5Y	-0.4000	US 10yr Ultra	111-15+	+0-27				
6M	5.39322 -0.00497	5.76556 -0.01593	4.95347 -0.03381	7Y	-0.3000	LONG BOND	113-30	+1-15				
1Y	5.26162 -0.00116	5.83958 -0.03614	4.09765 -0.01528	10Y	-0.3500	ULTRA LONG	117-25	+1-28				
3M Libor/SOFR OIS Spread												
LB/SFR		26.27800	-0.23900									
Cash Market		Generic SOFR Futures		SOFR Swaption 1Y		5Y	10Y	SOFR Futures				
ICAP FF	5.31000 +0.00000	SFR1 94.653 +0.003	1Y 147.609	130.538	116.869	1M SOFR	94.6900	+0.0000				
Fed Funds Eff	5.33000 +0.00000	SFR2 94.620 +0.005	2Y 139.698	125.552	112.916	3M SOFR	94.6200	+0.0050				
0/N Repo	5.39700 +0.06700	SFR3 94.745 +0.010	5Y 118.601	108.623	100.579							
		SFR4 95.000 +0.025	10Y 95.854	89.105	83.076							
		SFR5 95.295 +0.035										
		SFR6 95.595 +0.055										

Financing

Fed Funds FOMC »			Fed O/N Repo		US T-Bill				USD Deposit Rates		Rev Repo (Bid/Ask)					
DFDF	5.3100	5.3300	TGCR	5.30	4W	5.38	-0.01	5.29	5.27	O/N	5.2800	5.4100	O/N	5.35	5.31	
OBFR01	5.32		BGCR	5.30	2M	5.42	+0.00	5.29	5.29	1W	5.2850	5.4250	1W	5.41	5.37	
Commercial Paper			AFX O/N Rate		3M	5.42	+0.00	5.28	5.26	2W	5.2900	5.4500	2W	5.42	5.38	
30D	5.320		AMERIBOR	5.47	6M	5.49	+0.00	5.27	5.25	1M	5.3333	5.5201	1M	5.44	5.40	
90D	5.520		S&P 500 E-Mini Future		1Y	5.32	-0.01	5.05	5.03							
Dow Jones			SPX Fut		NASDAQ Composite Index				CRB Commodity Index							
DJIA	34152.60	+56.74	4395.75 +11.50		CCMP				13639.86 +121.08							
US Bonds FIT »			S&P 500		SOFR FUT		LIBOR		BSBY Fix		SOFR Fix					
T 5 10/31/25	4.909	100-05 ¹ / ₄	100-05 ³ / ₈	+ 01+	SPX	4378.38	SFR1	94.653	1M	5.44	O/N	5.42	5.32			
T 4 ⁵ / ₈ 10/15/26	4.684	99-26+	99-26 ³ / ₄	+ 03+	FRAs		SFR2	94.620	3M	5.63						
T 4 ⁷ / ₈ 10/31/28	4.533	101-16	101-16 ¹ / ₄	+ 07 ³ / ₄	1x4		SFR3	94.745	6M	5.82	1M	5.38	5.32			
T 4 ⁷ / ₈ 10/31/30	4.576	101-24	101-24+	+ 12+	2x5		SFR4	94.995								
T 3 ⁷ / ₈ 08/15/33	4.571	94-17+	94-18	+ 17+	3x6		SFR5	95.295			3M	5.63	5.37			
T 4 ³ / ₈ 08/15/43	4.912	93-07+	93-08	+ 30	4x7		SFR6	95.590			6M	5.77	5.39			
T 4 ¹ / ₈ 08/15/53	4.734	90-09	90-10+	+1-03	5x8	5.519					1Y	5.84	5.26			
Spot FX FXC »			Key Rates		SOFR OIS Swaps		10Y Note Future		Funds Future		Fed Repo					
JPY	150.4100	Prime	8.50	3Y	4.4674	CBT		108-04	+ 17	NOV	94.673	G/C ON	5.39			
EUR	1.0696	BLR	7.25	5Y	4.2510	Commodities				30Y MBS BBTM »						
GBP	1.2295	FDTR	5.50	10Y	4.2008	NYM WTI		77.41	-3.41	FNCL 5			94-15+	94-21+	+ 12+	
CAD	1.3765	Discount	5.50	30Y	4.0282	GOLD		1968.68	-9.46	G2SF 5			95-08	95-17+	+ 10	
											Current Coupon			6.251		
Economic Releases ECO »																
	Date	Time	C	A	M	R	Event	Period	Surv(M)	Actual	Prior	Revised				
1)	11/07	08:30	US	🔔	📊	📈	Trade Balance	Sep	-\$59.8b	-\$61.5b	-\$58.3b	-\$58.7b				
2)	11/07	15:00	US	🔔	📊	📈	Consumer Credit	Sep	\$9.500b	\$9.057b	-\$15.628	-\$15.788				

Collateral



VRS Collateral for Non-Cleared Derivatives

Balances as of m/d/yyyy

Counterparty Name	Type	Asset Type	Quantity	VRS Collateral - Posted	Counterparty - Collateral Held
Counterparty 1	Posted	Cash	(\$12,754,000)		
Counterparty 2	Posted	Debt	(26,113,000)		
Counterparty 3	Posted	Debt	(27,832,000)		
Counterparty 4	Posted	Debt	(9,432,000)		
Counterparty 5	Posted	Debt	(18,763,000)		
Counterparty 6	Posted	Debt	(13,915,800)		
Counterparty 7	Posted	Debt	(61,931,000)		
Total Collateral Posted				(\$170,740,800)	
Counterparty 8	Held	Cash	290,000		
Counterparty 9	Held	Debt	4,908,000		
Counterparty 10	Held	Debt	38,051,000		
Counterparty 11	Held	Cash	3,400,000		
Counterparty 12	Held	Debt	145,643,360		
Total Collateral Held					\$192,292,360
VRS Collateral Inventory Account Balance				419,791,324	
VRS Collateral Available (unposted)				\$249,050,524	

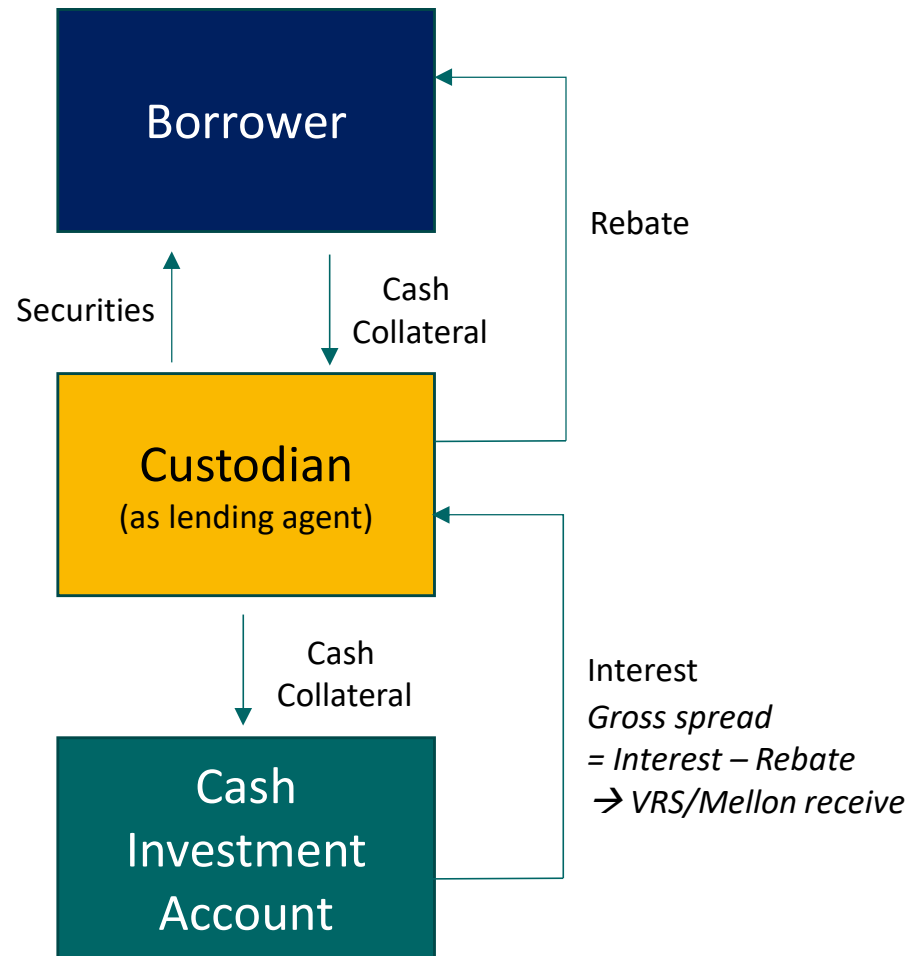
Broker Runs: Sample Indications



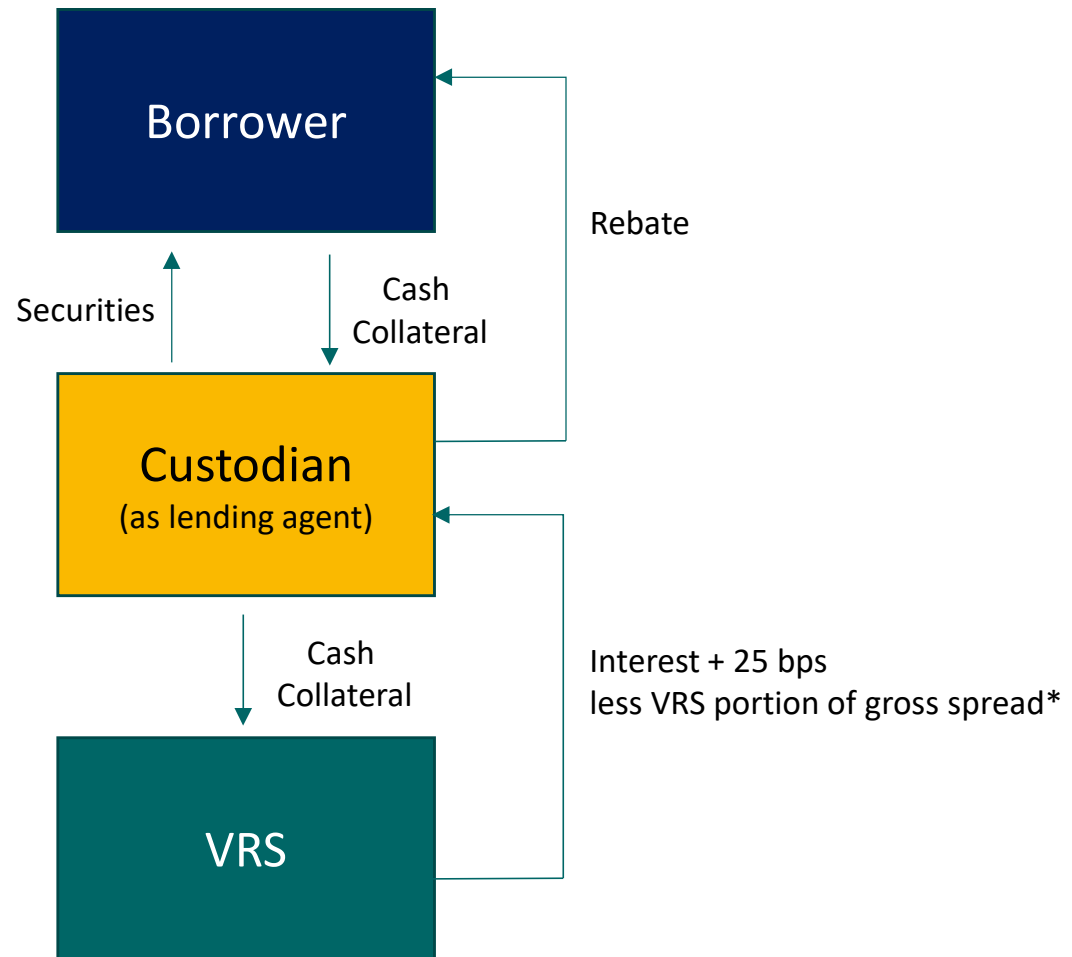
Description	Benchmark	Indic. Size (USD, mlns)	3m Tenor		6m Tenor		1y Tenor	
			Bid	Offer	Bid	Offer	Bid	Offer
MSCI Daily TR Gross USA USD	Fed Funds	50	45	50	40	45	40	45
MSCI Brazil NTR USD	SOFR	50	(25)	45	(25)	50	(25)	65
MSCI Emerging Latin America NTR USD	SOFR	50	(25)	52	(25)	55	(25)	70
Russell 2000 TR	Fed Funds	50	0	20	(5)	15	(10)	10
Russell Midcap TR	Fed Funds	50	20	35	20	30	15	30
S&P 500 TR	Fed Funds	50	45	50	40	45	40	45
MSCI JAPAN NR	TONA	50	(20)	2	(36)	(16)	(40)	(20)
MSCI EUROPE NR	ESTRON	50	0	20	(20)	0	(25)	(5)
EURO STOXX 50 NRt	€STR	50	(20)	2	(25)	(5)	(45)	(25)
FTSE 100 Net Tax Index	SONIA	50	35	45	30	40	30	40
FTSE 100 Total Return Index GBP	SONIA	50	35	45	30	40	30	40
MSCI Daily TR Gross EAFE USD	SOFR	50	45	60	70	80	50	60
MSCI Daily TR Gross World USD	SOFR	50	50	65	50	60	45	55
MSCI EAFE NTR USD	SOFR	50	30	40	(5)	10	5	10
MSCIEM Europe & Middle East & Africa NTR	SOFR	50	(15)	80	(25)	30	(20)	10
MSCI World NTR USD	SOFR	50	10	25	(2)	8	(5)	5
MSCI ACWI NTR USD	SOFR	50	10	30	(5)	10	(5)	5
MSCI Emerging NTR USD	SOFR	50	25	60	10	30	0	15

* Hypothetical indications from broker

Securities Lending Cash Release - Current



Securities Lending Cash Release - Funding

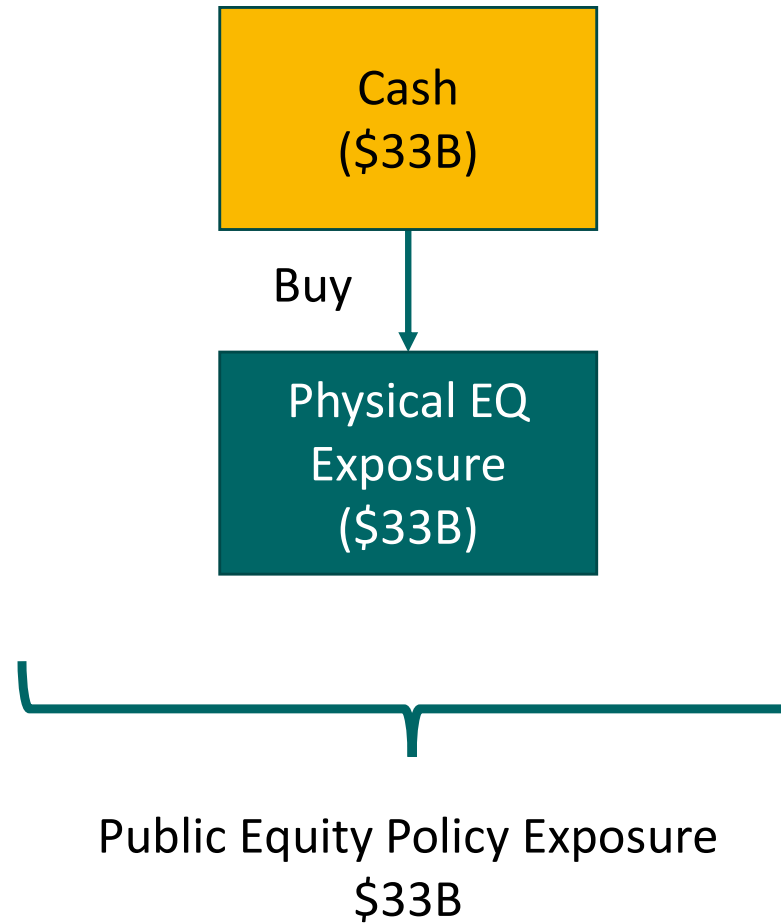


* VRS normally receives pre-determined portion of gross spread

Use of Synthetics - Current

33% Policy Allocation to Public Equity (EQ)

Economic Exposure

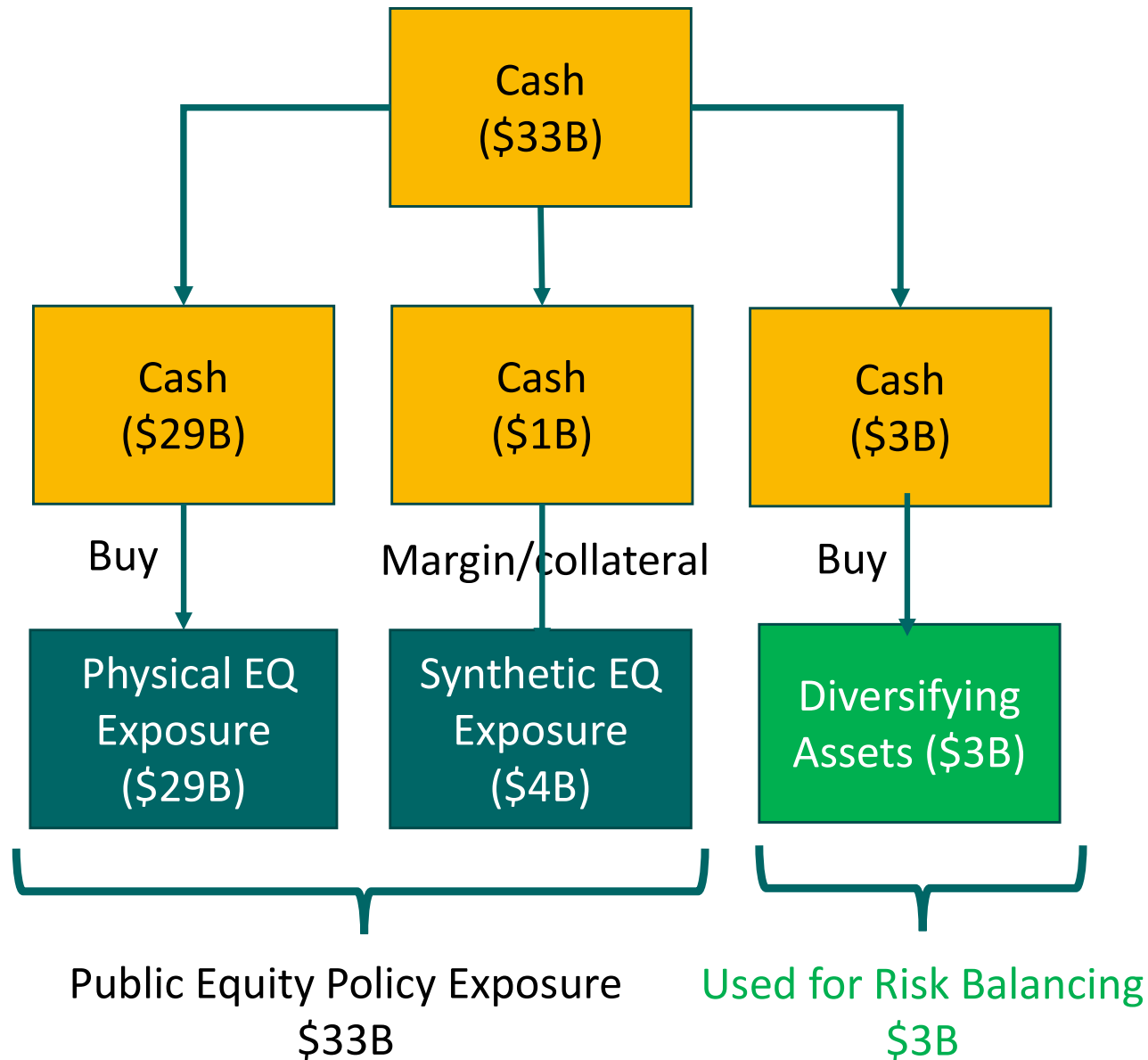


Use of Synthetics – Funding

33% Policy Allocation to Public Equity (EQ)

Allocate Cash to Exposures (\$33B)

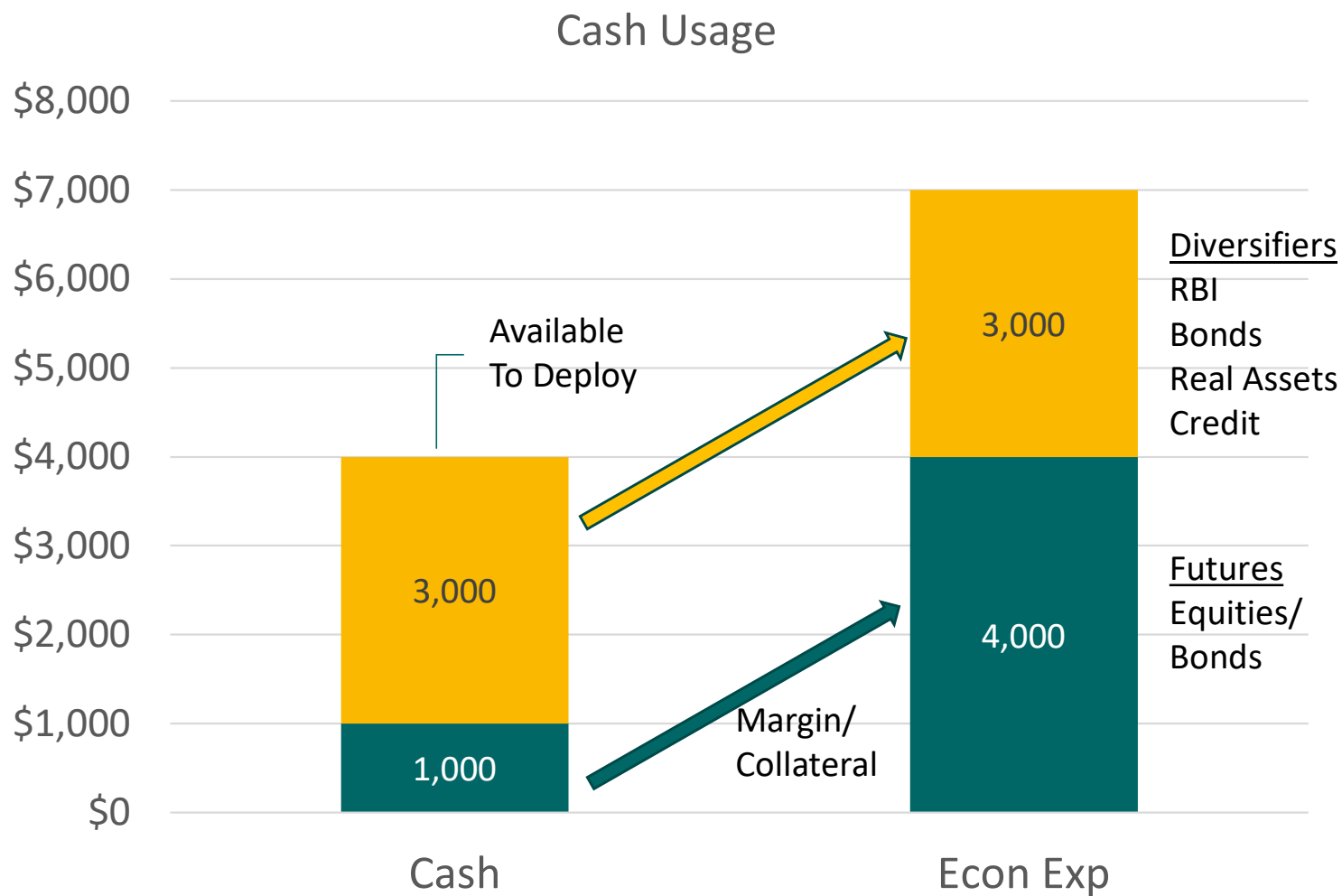
Economic Exposures* (\$36B)



18 * Synthetic exposure is passive exposure to benchmark. ALM Update – November 2023

Cash Management - Synthetic Case Study

Synthetic exposure allows for re-allocation to other assets

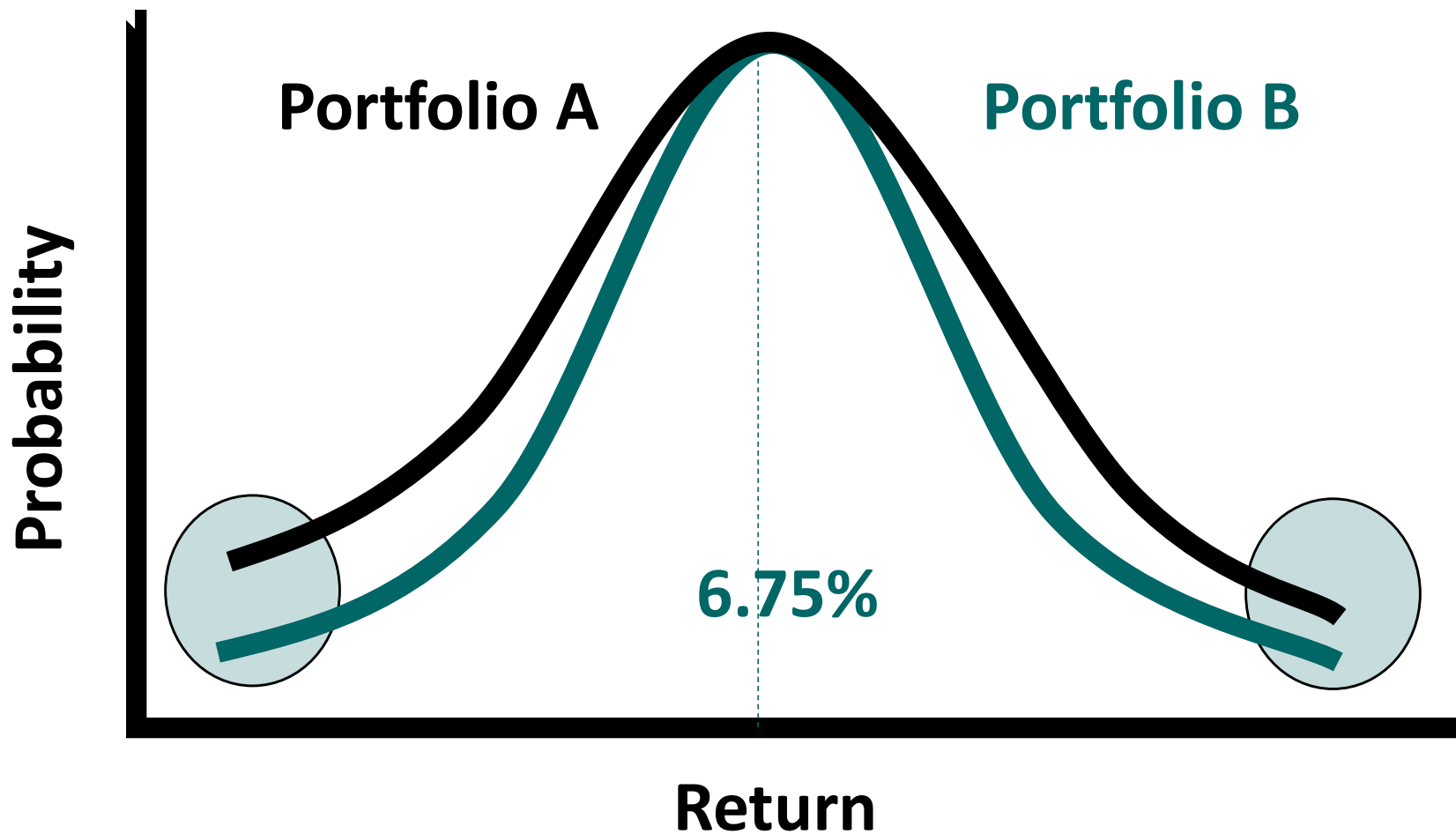


Illustrative, numbers are in US dollars, millions

Sources of Funding – Pros and Cons

Sources	Pros	Cons
Synthetics (futures, swaps)	Already in use	Higher cost
	Liquid	Disruptive to programs
	Lock in funding spreads	High margin requirements
	High capacity	Forgo alpha in programs
Security Lending Cash Release	Lowest cost	Limited capacity
	Minimal disruption	Small reduction in income from security lending
Sponsored Cleared Repo	Low cost	Limited capacity
	Fewer legal docs than bilateral repo	Shares inventory with security lending
	Low counterparty risk	Only government securities used as collateral

Illustrative





Approve revised Defined Benefit Plan Investment Policy Statement.

Requested Action

The VRS Board of Trustees approves the revised Defined Benefit Plan Investment Policy Statement.

Description/Background

The VRS Board of Trustees approved the current Defined Benefit Plan Investment Policy Statement on November 14, 2018.

In preparation for implementing leverage into the Plan, staff performed an internal review of the Defined Benefit Plan Investment Policy Statement. Both a red line and black line version of the revised Defined Benefit Plan Investment Policy Statement are attached.

Rationale for Requested Action

The proposed revisions reflect the changes staff believes would more accurately describe the Board's decision-making responsibilities.

Authority for Requested Action

The Board is authorized to approve these recommendations pursuant to the provisions of *Code of Virginia* §§ 51.1-124.22 and -124.30.

The above action is approved on November 16, 2023.

A. Scott Andrews, Chair
VRS Board of Trustees

Date

APPROVED BY THE BOARD OF TRUSTEES: JUNE 15, 2006
UPDATED NOVEMBER 1614, 202318

1. Investment Objective

The investment objective of the VRS defined benefit plan portfolio is to maximize return while managing risk within an acceptable range. Because of 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 VRS Trust 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
5. Strategic Asset Allocation Leverage Target (Asset Allocation Leverage and Rebalancing Leverage)

Beyond these broad policy decisions, the Board delegates to the Chief Investment Officer (CIO) all other decisions 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, and strategic asset allocation leverage. (continued)

3. Asset Allocation/Rebalancing (*continued*)

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 two to three 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, provided 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](#).

**APPROVED BY THE BOARD OF TRUSTEES: JUNE 15, 2006
UPDATED NOVEMBER 16, 2023**

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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, provided 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](#).



**Approve revised Defined Benefit Plan Investment
Belief Statements.**

Requested Action

The VRS Board of Trustees approves the revised Defined Benefit Plan Investment Belief Statements.

Description/Background

The VRS Board of Trustees approved the current Defined Benefit Plan Investment Belief Statements on April 20, 2021.

In preparation for implementing leverage into the Plan, staff performed an internal review of the Defined Benefit Plan Investment Belief Statements. Both a red line and black line version of the revised Defined Benefit Plan Investment Belief Statements are attached.

Rationale for Requested Action

The proposed revisions reflect the changes staff believes would more accurately describe the staff implementation parameters.

Authority for Requested Action

The Board is authorized to approve these recommendations pursuant to the provisions of *Code of Virginia* §§ 51.1-124.22 and -124.30.

The above action is approved on November 16, 2023.

A. Scott Andrews, Chair
VRS Board of Trustees

Date



APPROVED BY THE BOARD OF TRUSTEES: SEPTEMBER 8, 2015
UPDATED: ~~NOVEMBER 16, 2023~~ APRIL 20, 2021

I. Introduction

VRS strives to be consistent with the fiduciary obligations outlined in the *Code of Virginia*, which require the Virginia Retirement System Board of Trustees (Board) to invest the assets of the VRS Trust Fund with care, skill, prudence and diligence, while diversifying investments to minimize the risk of large losses. The Board, therefore, developed these Investment Beliefs to 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 Belief Statements

The Board developed the following Investment Belief Statements to guide its decisions and provide an anchor to the 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.
 - 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. **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

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.
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.
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.
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

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. Portfolio 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. Plan leverage can also help balance risk exposures and appear in multiple forms, including asset allocation leverage and rebalancing leverage.
13. VRS' Investment Staff develops, strengthens and retains its intellectual capital, so that it can remain successful through industry leadership and innovation. This is primarily advanced by collaboration among asset class and functional area teams. Secondly, external relationships with like-minded global partners are identified and cultivated to broaden investment reach. With both internal and external personnel, success is based on cooperation, trust and transparency.



**APPROVED BY THE BOARD OF TRUSTEES: SEPTEMBER 8, 2015
UPDATED: NOVEMBER 16, 2023**

I. Introduction

VRS strives to be consistent with the fiduciary obligations outlined in the *Code of Virginia*, which require the Virginia Retirement System Board of Trustees (Board) to invest the assets of the VRS Trust Fund with care, skill, prudence and diligence, while diversifying investments to minimize the risk of large losses. The Board, therefore, developed these Investment Beliefs to 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.

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 - 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.
 - 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. **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

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.
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.
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.
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

- 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.** Portfolio 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. Plan leverage can also help balance risk exposures and appear in multiple forms, including asset allocation leverage and rebalancing leverage.
- 13.** VRS' Investment Staff develops, strengthens and retains its intellectual capital, so that it can remain successful through industry leadership and innovation. This is primarily advanced by collaboration among asset class and functional area teams. Secondly, external relationships with like-minded global partners are identified and cultivated to broaden investment reach. With both internal and external personnel, success is based on cooperation, trust and transparency.

Approve VRS Investment Leverage Policy.

Requested Action

The VRS Board of Trustees approves the VRS Investment Leverage Policy.

Description/Background

Staff engaged Agilis, an actuarial consulting firm, to review and propose long-term asset allocation options for the Defined Benefit Plan. Agilis conducted asset-liability modeling, reviewed potential outcomes for the analysis, decision criteria, alternative portfolios, liability risk factors, and non-investment risks with the Board at several meetings.

At the June 15, 2023, Board meeting, the VRS Board of Trustees approved the long-term Defined Benefit Plan strategic asset allocation which included the implementation of leverage. Such selection represented a determination by the Board that using leverage for investment purposes (i) is a prudent use of trust funds, (ii) is consistent with the exclusive benefit rule, and (iii) does not negatively impact liquidity, diversification, or expected risk and return characteristics. Additionally, the Board approved an additional 3% of leverage be available for rebalancing purposes as circumstances may warrant to prevent transacting at non-economic prices and at the CIO's discretion. In this leveraged scenario, the payment of pensions will be prioritized over the repayment of debt.

Rationale for Requested Action

The VRS Investment Leverage Policy establishes a framework for the prudent management of leverage for the VRS Defined Benefit Plan.

Authority for Requested Action

The Board is authorized to approve these recommendations pursuant to the provisions of *Code of Virginia* §§ 51.1-124.22 and -124.30.

The above action is approved on November 16, 2023.

A. Scott Andrews, Chair
VRS Board of Trustees

Date

Virginia Retirement System Investment Leverage Policy

I. Scope

This Policy applies to the utilization of leverage within the Virginia Retirement System ("VRS") Defined Benefit Fund ("Fund").

II. Purpose

The primary objective of this policy is to establish a framework for the prudent management of leverage for the VRS Fund.

III. Philosophy

Leverage can be defined in multiple ways. From an investment standpoint, leverage arises when the economic or market exposure of an investment surpasses the total capital deployed. The use of leverage has the potential to magnify gains or losses on a given capital amount, potentially increasing the volatility of returns. The Fund presently incorporates strategies that employ Implementation Leverage (defined below), such as borrowing capital for real estate investments.

The purpose of this policy is to focus on leverage at the Strategic Asset Allocation level. In 2023, the VRS Board of Trustees approved two forms of leverage for the execution of asset allocation, namely Asset Allocation Leverage and Rebalancing Leverage (defined below). Leverage is strategically employed to enhance the efficiency of the investment portfolio from a return and risk perspective, relative to alternative choices that do not employ leverage. Furthermore, leverage is employed to enhance portfolio diversification and mitigate portfolio concentration.

IV. Permissible Deployment of Leverage

The utilization of leverage by staff is permissible through the following mechanisms:

1. **Derivatives:** include futures, forwards, swaps and options
2. **Reinvestment or re-use of collateral:** includes, but is not limited to, securities lending, repurchase agreements/reverse repurchase agreements, and other external funding mechanisms
3. **Implementation Leverage:** includes the use of financing terms embedded within program level investment structures, such as leverage on real estate

Any other deployment of leverage shall be done pursuant to the prudent investor standard given in § 51.1-124.30(C) of the Code of Virginia, namely "with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims."

V. Leverage Parameters and Assessment

Various approaches are employed to assess and manage the risks associated with leverage, contingent upon the source and resultant risk exposures. These approaches encompass a combination of controls outlined in policies, portfolio guidelines, procedures, and legally binding documents. The key elements of this section include:

1. **Management and Monitoring:** Leverage will be managed and monitored at the Total Fund level.
2. **Asset Allocation Leverage:** This will be executed as part of the Strategic Asset Allocation in alignment with the targets stipulated in the VRS Defined Benefit Plan Investment Policy Statement. Asset Allocation Leverage exists when the total policy weights in the Strategic Asset Allocation exceed 100% and represents economic exposure surpassing the capital at the Total Fund level. Policy weights are documented in the VRS Defined Benefit Plan Investment Policy Statement.
3. **Explicit Leverage:** Denotes the excess amount of economic exposure beyond the 100% composed of the total of all program weights within the Strategic Asset Allocation.
4. **Calculation of Explicit Asset Allocation Leverage Exposure:** Explicit Leverage exposure will be calculated by aggregating the weights of each program within the Strategic Asset Allocation minus 100%.
5. **Rebalancing Leverage:** Staff possesses the authority to utilize leverage in addition to the Asset Allocation Leverage. This is expected to be infrequent and contingent upon attractive opportunities. Limits are detailed in the VRS Defined Benefit Plan Investment Policy Statement.
6. **Additional points in the methodology encompass:**
 - a. The use of currency derivatives for hedging or risk management purposes does not constitute leverage.
 - b. The use of derivatives within a program for hedging, risk management, or portfolio management is not counted as leverage.
 - c. Capital commitments are not categorized as leverage.
7. **Breach of Asset Allocation Leverage:** Staff will not, by its tactical actions, cause Asset Allocation Leverage to surpass the maximum limit. However, market action or Fund liquidity needs could cause Asset Allocation Leverage to be temporarily above the limit. In such rare cases, the Chief Investment Officer (CIO) will have the flexibility to exceed the limit if the deviation is related to market actions or Fund liquidity needs, if the CIO believes bringing the Asset Allocation Leverage back within its limit would not be economically prudent. If, however, the CIO determines Asset Allocation Leverage needs to be brought back within its limit, staff will establish an action plan. In any event, the CIO will communicate the deviation to the Board on a timely basis.
8. **Breach of Rebalancing Leverage:** Staff will not, by its tactical actions, cause Rebalancing Leverage to surpass the maximum limit. However, market action or Fund liquidity needs could cause Rebalancing Leverage to be temporarily above the limit. In such rare cases, the CIO will have the flexibility to exceed the limit if the

deviation is related to market actions or Fund liquidity needs, if the CIO believes bringing the Rebalancing Leverage back within its limit would not be economically prudent. If, however, the CIO determines Rebalancing Leverage needs to be brought back within its limit, staff will establish an action plan. In any event, the CIO will communicate the deviation to the Board on a timely basis.

9. **Program Level Leverage:** Leverage may be used in strategies within programs. The risk monitoring process is multi-faceted and is addressed using a variety of approaches both at the individual portfolio level and the program level. For example, measures of volatility, tracking error, and returns are captured at both the individual portfolio and program levels, and monitored as part of VRS' risk management framework. Borrowing is not permitted at the Program level.
10. **Leverage monitoring and reporting:**
 - a. Reporting is regularly generated by VRS to provide insights into leverage exposures for staff review. Dashboards may also provide information on the various facets of the leverage process.
 - b. Leverage use exposure risk metrics will be reported at least annually to the Investment Advisory Committee. The Investment Advisory Committee will review leverage with an emphasis on diversifying counterparties, maturities, and sources.
 - c. Periodic reports on leverage will be presented by the CIO to the Board. The CIO will respond in a timely manner to requests for information from the Board.



Approve FY 2024 Defined Benefit Plan Strategic Asset Allocation and Allowable Ranges.

Requested Action

The VRS Board of Trustees approves the FY 2024 Defined Benefit Plan Strategic Asset Allocation and Allowable Ranges and the removal of hedge funds policy limit.

Description/Background

Board Strategic Asset Allocation and Allowable Ranges. The Board approved the current Defined Benefit Plan Strategic Asset Allocation and Allowable Ranges at the June 15, 2023, Board meeting. Since the Board adopted a new Strategic Asset Allocation with leverage as a result of the ALM exercise at the same Board meeting, the CIO recommends the following new target exposures and allowable ranges effective January 1, 2024.

Asset Class	FY 2024* Target	Allowable Ranges		Proposed FY 2024** Target	Allowable Ranges	
		Min	Max		Min	Max
Public Equity	34%	-5%	+5%	33%	-7%	+7%
Fixed Income	15%	-3%	+5%	16%	-4%	+7%
Credit Strategies	14%	-5%	+5%	14%	-7%	+7%
Real Assets	14%	-5%	+5%	14%	-7%	+7%
Private Equity	16%	-5%	+5%	16%	-7%	+7%
PIP	2%	-2%	+2%	2%	-2%	+2%
MAPS	4%	-2%	+2%	4%	-3%	+5%
Exposure Management	0%	-	+3%	0%	-	+6%
Cash	1%	-1%	+4%	2%	-2%	+5%
Total Fund with Asset Allocation Leverage	-			101%		
Leverage	-			1%	-1%	+2%
Total Fund	100%			100%		
High-Level Exposure						
Total Equity	50%	-10%	+10%	49%	-10%	+10%
Fixed Income + Cash	16%	-4%	+9%	18%	-6%	+9%
Rebalancing Leverage	-			3%		

Notes:

* To remain in effect until January 1, 2024.

** To become effective January 1, 2024, and remain in effect through FY 2024.

Staff will not, by its tactical actions, underweight or overweight any individual asset class beyond the minimum and maximum allowable ranges. However, market action or Fund liquidity needs could cause an individual asset class to be temporarily below the minimum allowable range or above the maximum allowable range. In such rare cases, using the high-level rebalancing ranges, the CIO will have the flexibility to exceed the individual allowable ranges if the deviation is related to market actions or Fund liquidity needs, if the CIO believes bringing an individual asset class back within its allowable range would not be economically prudent. If, however, the CIO determines an individual asset class needs to be brought back into its allowable range, staff will establish an action plan. In any event, the CIO will communicate the deviation to the Board on a timely basis.

Staff will not, by its tactical actions, cause the Strategic Asset Allocation Leverage (comprised of Asset Allocation Leverage and Rebalancing Leverage) to surpass its limit. However, market action or Fund liquidity needs could cause the Strategic Asset Allocation Leverage to be temporarily above the limit. In such rare cases, the CIO will have the flexibility to exceed the maximum limit if the deviation is related to market actions or Fund liquidity needs, if the CIO believes bringing the Strategic Asset Allocation Leverage back within its limit would not be economically prudent. If, however, the CIO determines the Strategic Asset Allocation Leverage needs to be brought back within its limit, staff will establish an action plan. In any event, the CIO will communicate the deviation to the Board on a timely basis.

Hedge Fund Policy Limit. Historically, the Board set a hedge funds policy limit for the total fund dating back to before 2006 with the most recently approved hedge funds policy limit of 15% at the June 19, 2015, Board meeting. Given that “hedge funds” can be viewed more as a legal structure, much like limited partnerships or separate accounts, and are not unlike any other type of active strategy that may be used in any VRS investment program that fits the underlying assets, the CIO recommends removing the hedge funds policy limit for the total fund.

Rationale for Requested Action

The recommended Strategic Asset Allocation and Allowable Ranges reflects the current market conditions and continues to allow for easier management of the asset allocation with the leverage component. The recommended removal of the hedge funds policy limit reflects the current view of hedge funds as not unlike any other active strategy employed by VRS staff.

Authority for Requested Action

The Board is authorized to approve these recommendations pursuant to the provisions of *Code of Virginia* §§ 51.1-124.22 and -124.30.

The above action is approved on November 16, 2023, with an effective date of January 1, 2024.

A. Scott Andrews, Chair
VRS Board of Trustees

Date

VRS Defined Benefit Plan Investment Policy Statement
as of July 1, 2023**
Appendix 1

Asset Class (Strategies)	Policy Target %	Allowable Range	Benchmark	Tracking Error Range
Global Public Equity	34.0%	29% - 39%	MSCI ACWI IMI Index Net*	
Global Equity	-	-		
Equity Hedge Funds	-	-		
Fixed Income	15.0%	12% - 20%	Fixed Income Custom	
Core	-		Bloomberg US Aggregate Bond Index	
High Yield	-		Bloomberg US HY Ba/B 2% Issuer Cap Index	
Emerging Market Debt	-		JP Morgan EMBI Global Core Index	
Credit Strategies	14.0%	9% - 19%	Credit Strategies Custom	
Real Assets	14.0%	9% - 19%	Real Assets Custom	
Private Real Estate	-	-	NCREIF ODCE Index Net	
Other Real Assets	-	-	CPI-U + 400 bps	
Private Equity	16.0%	11% - 21%	Private Equity Custom	
Multi-Asset Public Strategies	4.0%	2% - 6%	MAPS Custom	
Dynamic Strategies	-		DStrat Custom	
Risk-Based Investments	-		RBI Custom	
Private Investment Partnerships	2.0%	0% - 4%	PIP Custom	
Exposure Management	0.0%	0% - 3%		
Cash	1.0%	0% - 5%	ICE BofA US 3-Month Treasury Bill Index (FKA Merrill Lynch 91-day T-Bill Index)	
Total Fund	100.0%		VRS Custom Benchmark	100 - 300 bps
High-Level Exposure				
Total Equity	50.0%	40% - 60%		
Fixed Income + Cash	16.0%	12% - 25%		
Hedge Funds (Strategies)	≤ 15.0%	n/a	varies by program	

* "Net" means net of VRS foreign tax withholding.

** Previous date was January 1, 2023.

Notes:

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. (continued)

VRS Defined Benefit Plan Investment Policy Statement
as of July 1, 2023**
Appendix 1

Notes (continued):

Staff will not, by its tactical actions, underweight or overweight any individual asset class beyond the minimum and maximum allowable ranges. However, market action or Fund liquidity needs could cause an individual asset class to be temporarily below the minimum allowable range or above the maximum allowable range. In such rare cases, using the high-level rebalancing ranges, the CIO will have the flexibility to exceed the individual allowable ranges if the deviation is related to market actions or Fund liquidity needs, if the CIO believes bringing an individual asset class back within its allowable range would not be economically prudent. If, however, the CIO determines an individual asset class needs to be brought back into its allowable range, staff will establish an action plan. In any event, the CIO will communicate the deviation to the Board on a timely basis.

The Fixed Income Custom Benchmark is a blend of the Bloomberg US Aggregate Bond Index (90%), Bloomberg US High Yield Ba/B 2% Issuer Cap Index (5%) and JP Morgan EMBI Global Core Index (5%).

The Credit Strategies Custom Benchmark is blend of the Morningstar LSTA Performing Loan Index (50%) and the Bloomberg US High Yield Ba/B 2% Issuer Cap Index (50%).

The Real Assets Custom Benchmark is the market value weighted blend of the NCREIF Private Real Estate Benchmark (ODCE Index (net lagged by three months) and the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months).

The Private Equity Custom Benchmark is the MSCI ACWI IMI (net VRS tax rates) lagged by three months.

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) Custom Benchmark is a blend of the MSCI ACWI IMI Index (net VRS tax rates) (60%), the Bloomberg US Aggregate Bond Index (20%), the Bloomberg US HY Ba/B 2% Issuer Cap Index (10%) and the JP Morgan EMBI Global Core Index (10%).

The Risk-Based Investments (RBI) Custom Benchmark is the Bloomberg US Treasury Bellwethers: 3 month plus 250 basis points per annum.

The Private Investment Partnerships (PIP) Custom Benchmark is a weighted average of the custom Private Equity Benchmark (MSCI ACWI IMI Index (net VRS tax rates) lagged by three months) (33%), the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) (25%), the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) (8%), the Bloomberg US HY Ba/B 2% Issuer Cap Index (17%), and the Morningstar LSTA Performing Loan Index (17%).

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.

VRS Defined Benefit Plan Investment Policy Statement
as of January 1, 2024**
Appendix 1

Asset Class (Strategies)	Policy Target %	Allowable Range	Benchmark	Tracking Error Range
Global Public Equity	33.0%	26% – 40%	Public Equity Custom	
Global Equity	–	–		
Equity Hedge Funds	–	–		
Fixed Income	16.0%	12% – 23%	Fixed Income Custom	
Core	–		Bloomberg US Aggregate Bond Index	
High Yield	–		Bloomberg US HY Ba/B 2% Issuer Cap Index	
Emerging Market Debt	–		JP Morgan EMBI Global Core Index	
Credit Strategies	14.0%	7% – 21%	Credit Strategies Custom	
Real Assets	14.0%	7% – 21%	Real Assets Custom	
Private Real Estate	–	–	NCREIF ODCE Index Net	
Other Real Assets	–	–	CPI-U + 400 bps	
Private Equity	16.0%	9% – 23%	Private Equity Custom	
Multi-Asset Public Strategies	4.0%	1% – 9%	MAPS Custom	
Dynamic Strategies	–		DStrat Custom	
Risk-Based Investments	–		RBI Custom	
Private Investment Partnerships	2.0%	0% – 4%	PIP Custom	
Exposure Management	0.0%	0% – 6%		
Cash	2.0%	0% – 7%	ICE BofA US 3-Month Treasury Bill Index	
Total Fund with Asset Allocation Leverage	101.0%		VRS Custom Benchmark	100 – 300 bps
Leverage	1.0%	0% – 3%		
Total Fund	100.0%			
High-Level Exposure				
Total Equity	49.0%	39% – 59%		
Fixed Income + Cash	18.0%	12% – 27%		
Rebalancing Leverage	3.0%			

** Previous date was July 1, 2023.

Notes:

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. (continued)

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**VRS Defined Benefit Plan Investment Policy Statement
as of January 1, 2024**
Appendix 1**

Notes (continued):

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Staff will not, by its tactical actions, cause the Strategic Asset Allocation Leverage (comprised of Asset Allocation Leverage and Rebalancing Leverage) to surpass its limit. However, market action or Fund liquidity needs could cause the Strategic Asset Allocation Leverage to be temporarily above the limit. In such rare cases, the CIO will have the flexibility to exceed the maximum limit if the deviation is related to market actions or Fund liquidity needs, if the CIO believes bringing the Strategic Asset Allocation Leverage back within its limit would not be economically prudent. If, however, the CIO determines the Strategic Asset Allocation Leverage needs to be brought back within its limit, staff will establish an action plan. In any event, the CIO will communicate the deviation to the Board on a timely basis.

The Public Equity Custom Benchmark is a weighted average of the MSCI ACWI IMI Index (net VRS taxes) (85%) and the MSCI World Min Vol Index (net VRS taxes) (15%).

The Fixed Income Custom Benchmark is a blend of the Bloomberg US Aggregate Bond Index (90%), Bloomberg US High Yield Ba/B 2% Issuer Cap Index (5%) and JP Morgan EMBI Global Core Index (5%).

The Credit Strategies Custom Benchmark is a blend of the Morningstar LSTA Performing Loan Index (50%) and the Bloomberg US High Yield Ba/B 2% Issuer Cap Index (50%).

The Real Assets Custom Benchmark is the market value weighted blend of the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) and the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months).

The Private Equity Custom Benchmark is the regional benchmarks of the MSCI ACWI IMI Index (net VRS taxes) lagged by three months, weighted to reflect the Private Equity opportunity set (currently 75% North America, 20% Europe, and 5% Asia and Emerging Markets).

The Multi-Asset Public Strategies (MAPS) Custom Benchmark is the ICE BofA US 3-Month Treasury Bill Index plus 250 basis points per annum.

The Dynamic Strategies (DStrat) Custom Benchmark is the ICE BofA US 3-Month Treasury Bill Index plus 250 basis points per annum.

The Risk-Based Investments (RBI) Custom Benchmark is the ICE BofA US 3-Month Treasury Bill Index plus 250 basis points per annum.

The Private Investment Partnerships (PIP) Custom Benchmark is the weighted average of the Private Equity Custom Benchmark (33%), the NCREIF Private Real Estate Benchmark (25%), the Other Real Assets Custom Benchmark (8%), the Bloomberg US HY Ba/B 2% Issuer Cap Index (17%), and the Morningstar LSTA Performing Loan Index (17%).

The Leverage Custom Benchmark is the Secured Overnight Financing Rate (SOFR) plus 50 basis points per annum.

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

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These changes are described in RBA – Approve Public Equity, MAPS, Dynamic Strategies, Risk-Based Investments, and Leverage Benchmarks.



Approve Public Equity, MAPS, Dynamic Strategies, Risk-Based Investments, and Leverage Benchmarks.

Requested Action

The VRS Board of Trustees approves the recommended benchmarks for Public Equity, MAPS, Dynamic Strategies, Risk-Based Investments, and Leverage. In addition, the VRS Board of Trustees approves granting the Chief Investment Officer flexibility in implementing the Public Equity benchmark.

Description/Background

The Board previously approved the Public Equity benchmark at the October 10, 2019, meeting, the Multi-Asset Public Strategies (MAPS) benchmark at the June 7, 2018, meeting, the Dynamic Strategies benchmark at the November 20, 2019, meeting, and the Risk-Based Investments benchmark at the December 8, 2022, meeting.

Current Benchmarks:

Public Equity	MSCI ACWI IMI Index (net VRS tax rates). <i>(Effective date: January 1, 2020)</i>
MAPS	The market value weighted average of the benchmarks of the mandates (Dynamic Strategies and Risk-Based Investments) within the program. <i>(Effective date: July 1, 2018)</i>
Dynamic Strategies	A blend of the MSCI ACWI IMI Index (net of VRS tax rates) (60%), the Bloomberg US Aggregate Bond Index (20%), the Bloomberg US HY Ba/B 2% Issuer Cap Index (10%), and the JP Morgan EMBI Global Core Index (10%). <i>(Effective date: January 1, 2020)</i>
Risk-Based Investments	The Bloomberg US Treasury Bellwethers: 3 month plus 250 basis points per annum. <i>(Effective date: January 1, 2023)</i>

The Chief Investment Officer (CIO) is recommending changes to these benchmarks (Public Equity, MAPS, Dynamic Strategies and Risk-Based Investments), as well as a benchmark for Leverage. Specifically:

- The recommended change to the Public Equity benchmark better aligns the program benchmark with the long-term strategy of managing the program to lower expected absolute risk than the market. In addition, by granting flexibility to the CIO in fully implementing the weighting of the benchmark change, the Board recognizes the need for the CIO to consider market conditions and the potential for negative impact on the Total Fund when directing staff to implement the recommended benchmark change. The CIO will ensure the necessary change has been implemented by March 31, 2024.
- The recommended change to the MAPS benchmark simply aligns the benchmark with the two components (Dynamic Strategies and Risk-Based Investments) of the program.
- The recommended change to the Dynamic Strategies benchmark reflects a change in the program’s strategy to low correlation.
- The recommended change to the Risk-Based Investments benchmark aligns the benchmark with the current benchmark for “Cash.”

Recommended Benchmarks:

Public Equity	A weighted average of the MSCI ACWI IMI Index (net VRS taxes) (85%) and the MSCI World Min Vol Index (net VRS taxes) (15%). Effective date: January 1, 2024, with CIO flexibility in fully implementing the change
MAPS	The ICE BofA US 3-Month Treasury Bill Index plus 250 basis points per annum. Effective date: January 1, 2024
Dynamic Strategies	The ICE BofA US 3-Month Treasury Bill Index plus 250 basis points per annum. Effective date: January 1, 2024
Risk-Based Investments	The ICE BofA US 3-Month Treasury Bill Index plus 250 basis points per annum. Effective date: January 1, 2024
Leverage	The Secured Overnight Financing Rate (SOFR) plus 50 basis points per annum. Effective date: January 1, 2024

Rationale for Requested Action

The benchmarks reflect the investment philosophy and the intended risk parameters within the strategies and provide a good measure of the investment results.

Authority for Requested Action

The Board is authorized to approve these recommendations pursuant to the provisions of *Code of Virginia* §§ 51.1-124.22 and -124.30.

The above action is approved with an effective date of January 1, 2024.

A. Scott Andrews, Chair
VRS Board of Trustees

Date

VRS Defined Benefit Plan Investment Policy Statement
as of July 1, 2023**
Appendix 1

Asset Class (Strategies)	Policy Target %	Allowable Range	Benchmark	Tracking Error Range
Global Public Equity	34.0%	29% – 39%	MSCI ACWI IMI Index Net*	
Global Equity	-	-		
Equity Hedge Funds	-	-		
Fixed Income	15.0%	12% – 20%	Fixed Income Custom	
Core	-		Bloomberg US Aggregate Bond Index	
High Yield	-		Bloomberg US HY Ba/B 2% Issuer Cap Index	
Emerging Market Debt	-		JP Morgan EMBI Global Core Index	
Credit Strategies	14.0%	9% – 19%	Credit Strategies Custom	
Real Assets	14.0%	9% – 19%	Real Assets Custom	
Private Real Estate	-	-	NCREIF ODCE Index Net	
Other Real Assets	-	-	CPI-U + 400 bps	
Private Equity	16.0%	11% – 21%	Private Equity Custom	
Multi-Asset Public Strategies	4.0%	2% – 6%	MAPS Custom	
Dynamic Strategies	-		DStrat Custom	
Risk-Based Investments	-		RBI Custom	
Private Investment Partnerships	2.0%	0% – 4%	PIP Custom	
Exposure Management	0.0%	0% – 3%		
Cash	1.0%	0% – 5%	ICE BofA US 3-Month Treasury Bill Index (FKA Merrill Lynch 91-day T-Bill Index)	
Total Fund	100.0%		VRS Custom Benchmark	100 – 300 bps
High-Level Exposure				
Total Equity	50.0%	40% – 60%		
Fixed Income + Cash	16.0%	12% – 25%		
Hedge Funds (Strategies)	≤ 15.0%	n/a	varies by program	

* “Net” means net of VRS foreign tax withholding.

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The Fixed Income Custom Benchmark is a blend of the Bloomberg US Aggregate Bond Index (90%), Bloomberg US High Yield Ba/B 2% Issuer Cap Index (5%) and JP Morgan EMBI Global Core Index (5%).

The Credit Strategies Custom Benchmark is blend of the Morningstar LSTA Performing Loan Index (50%) and the Bloomberg US High Yield Ba/B 2% Issuer Cap Index (50%).

The Real Assets Custom Benchmark is the market value weighted blend of the NCREIF Private Real Estate Benchmark (ODCE Index (net lagged by three months) and the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months).

The Private Equity Custom Benchmark is the MSCI ACWI IMI (net VRS tax rates) lagged by three months.

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.

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The Private Investment Partnerships (PIP) Custom Benchmark is a weighted average of the custom Private Equity Benchmark (MSCI ACWI IMI Index (net VRS tax rates) lagged by three months) (33%), the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) (25%), the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) (8%), the Bloomberg US HY Ba/B 2% Issuer Cap Index (17%), and the Morningstar LSTA Performing Loan Index (17%).

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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Global Public Equity	33.0%	26% – 40%	Public Equity Custom	
Global Equity	-	-		
Equity Hedge Funds	-	-		
Fixed Income	16.0%	12% – 23%	Fixed Income Custom	
Core	-		Bloomberg US Aggregate Bond Index	
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Credit Strategies	14.0%	7% – 21%	Credit Strategies Custom	
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Cash	2.0%	0% – 7%	ICE BofA US 3-Month Treasury Bill Index	
Total Fund with Asset Allocation Leverage	101.0%		VRS Custom Benchmark	100 – 300 bps
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Virginia Retirement System

CEM Investment Benchmarking Report DB - 2022

November 16, 2023

Key Takeaways

Returns

- Your 5-year net total return was 7.1%. This was above both the U.S. Public median of 5.9% and the peer median of 6.2%.

Value added

- Your 5-year net value added was 2.2%. This was above both the U.S. Public median of 1.1% and the peer median of 1.3%.

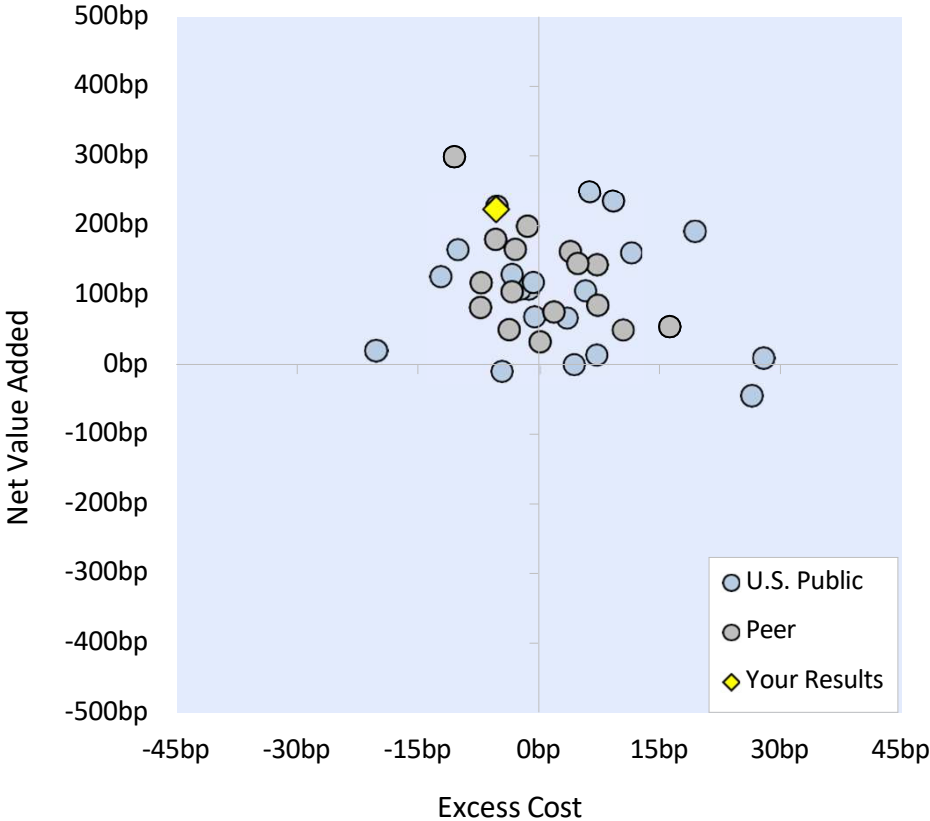
Cost

- Your investment cost of 73.3 bps was below your benchmark cost of 76.7 bps. This suggests that your fund was slightly low cost compared to your peers.
- Your fund was slightly low cost because it had a lower cost implementation style and it paid less than peers for similar services.

Your 5-year and 10-year performance placed in the positive value added, low cost quadrant of the cost effectiveness chart.

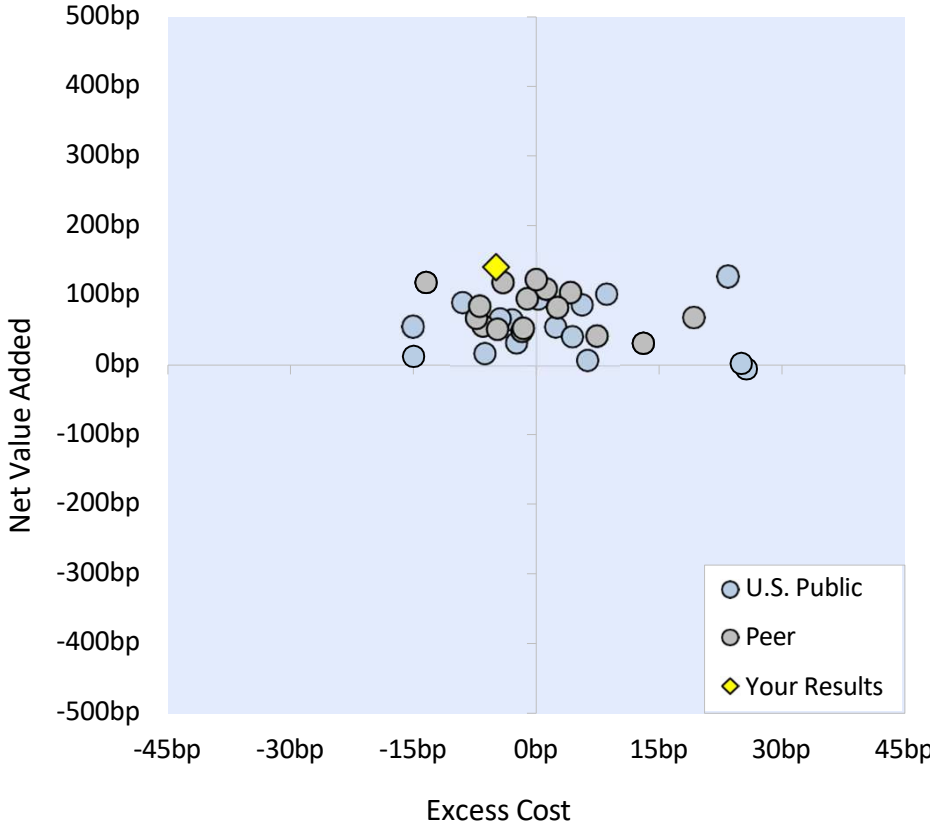
5-Year net value added versus excess cost

(Your 5-year: net value added 223 bps, cost savings 7 bps¹)



10-year net value added versus excess cost

(Your 10-year: net value added 140 bps, cost savings 6 bps²)



1. Your 5-year cost savings of 7 basis points is the average of your cost savings for the past 5 years.
2. Your 10-year cost savings of 6 basis points is the average of your cost savings for the past 10 years.

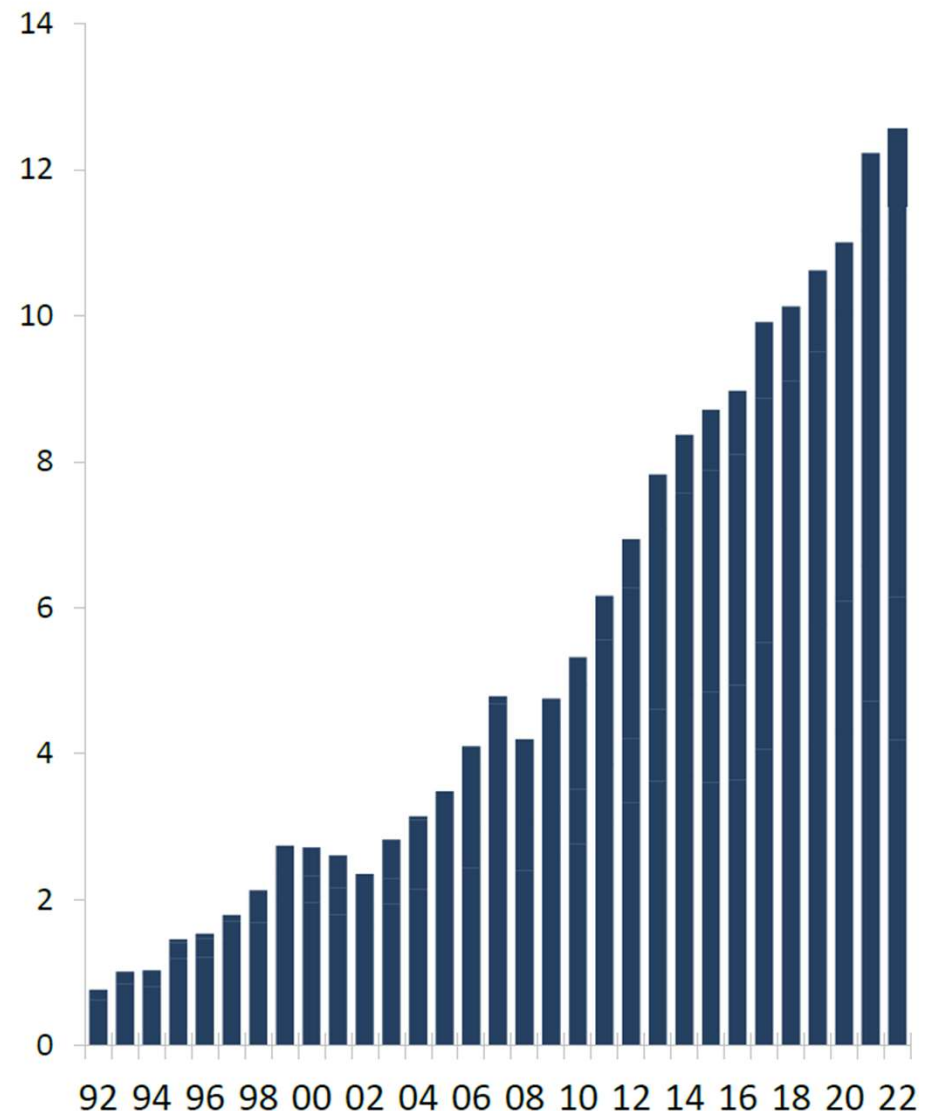
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	5-year	10-year
Net value added	590.0 bp	500.0 bp	8.0 bp	(12.0) bp	(19.0) bp	49.0 bp	(16.5) bp	88.0 bp	80.0 bp	70.0 bp	222.9 bp	139.8 bp
Excess cost	(3.5) bp	(5.5) bp	(7.3) bp	(5.7) bp	(5.0) bp	(5.6) bp	(4.2) bp	(1.0) bp	(4.0) bp	(6.8) bp	(5.4) bp	(4.9) bp

This benchmarking report compares your cost and return performance to the 284 funds in CEM's extensive pension database.

- 147 U.S. pension funds participate. The median U.S. fund had assets of \$8.5 billion and the average U.S. fund had assets of \$28.5 billion. Total participating U.S. assets were \$4.2 trillion.
- 69 Canadian funds participate with assets totaling \$2.0 trillion.
- 61 European funds participate with aggregate assets of \$4.4 trillion. Included are funds from the Netherlands, Norway, Sweden, Finland, Ireland, Denmark and the U.K.
- 5 Asia-Pacific funds participate with aggregate assets of \$998.7 billion. Included are funds from Australia, New Zealand, China and South Korea.
- 2 funds from other regions participate.

The most meaningful comparisons for your returns and value added are to the U.S. Public universe, which consists of 41 funds.

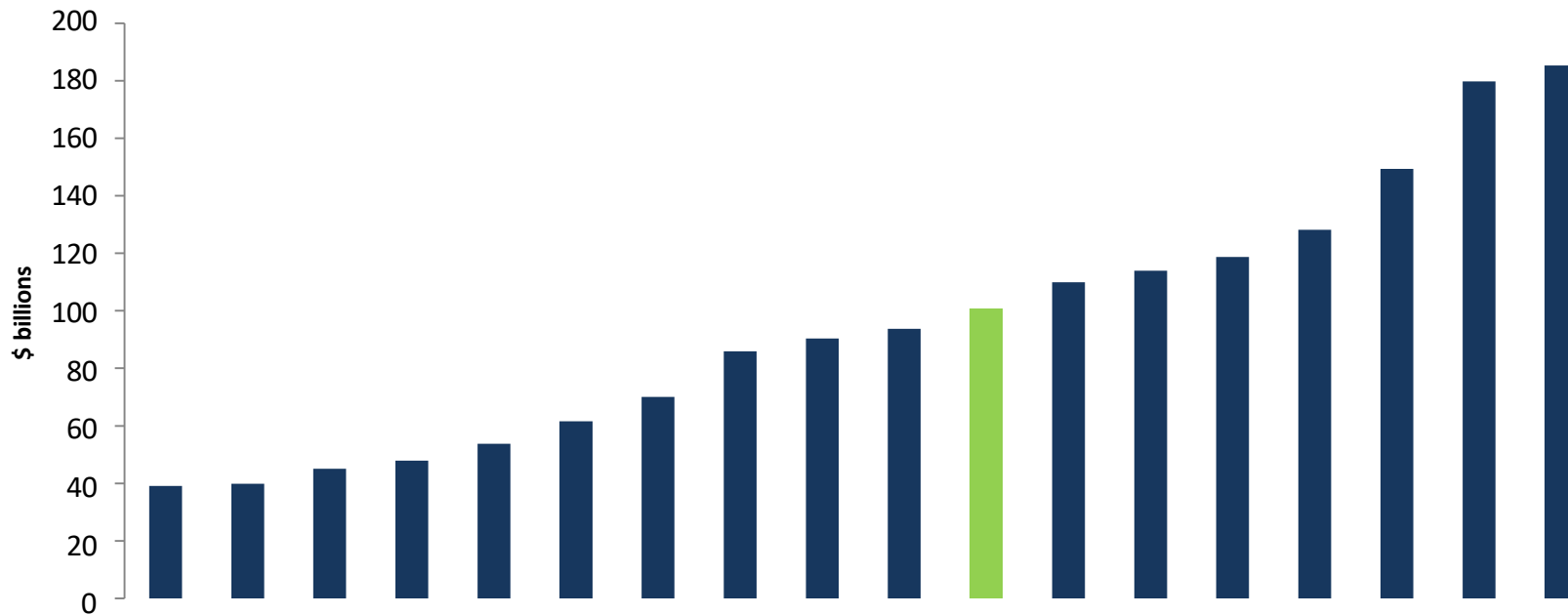
Participating assets (\$ trillions)



The most valuable comparisons for cost performance are to your custom peer group because size impacts costs.

Peer group for Virginia Retirement System

- 18 U.S. Public sponsors from \$39.1 billion to \$185.3 billion
- Median size of \$92.1 billion versus your \$100.6 billion



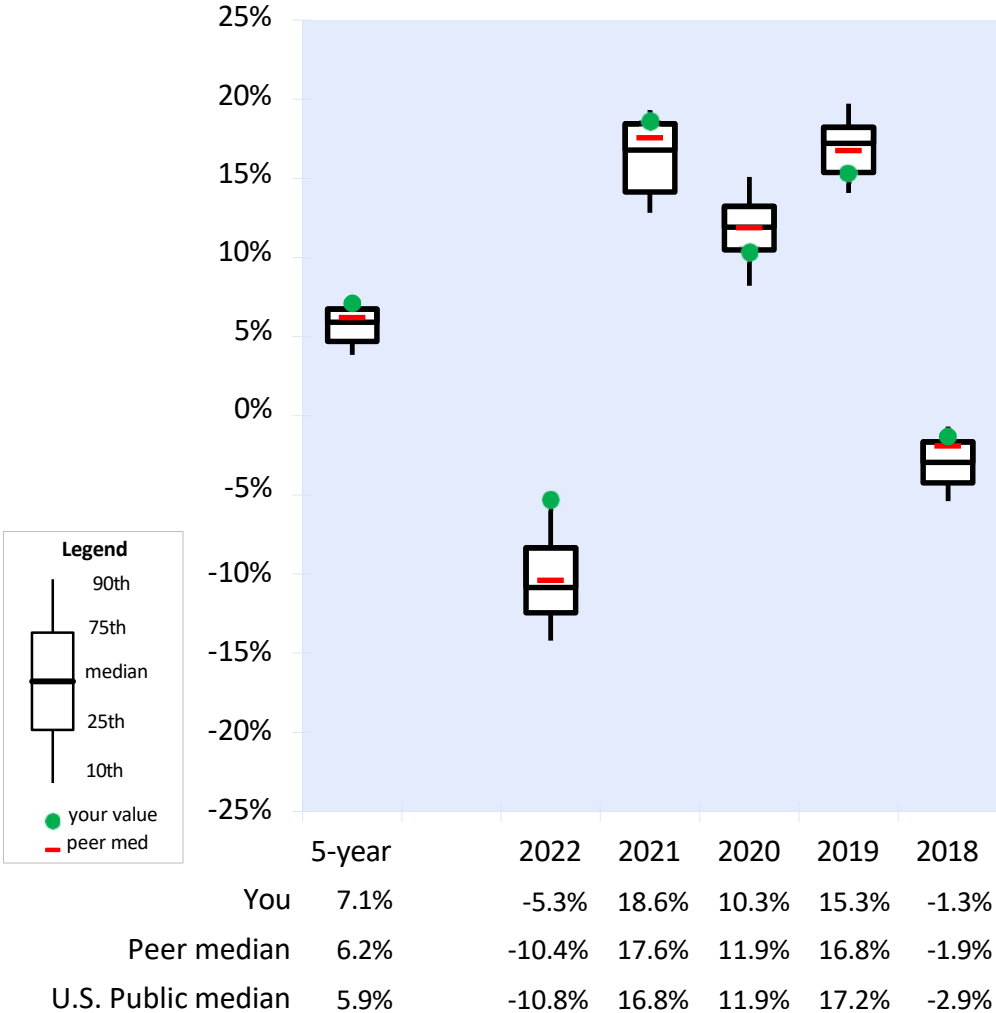
Your 5-year net total return of 7.1% was above both the U.S. Public median of 5.9% and the peer median of 6.2%.

Total returns, by themselves, provide little insight into the reasons behind relative performance. Therefore, we separate total return into its more meaningful components: policy return and value added.

	Your 5-year
Net total fund return	7.1%
- Policy return	4.9%
= Net value added	2.2%

This approach enables you to understand the contribution from both policy mix decisions (which tend to be the board's responsibility) and implementation decisions (which tend to be management's responsibility).

U.S. Public net total returns - quartile rankings



Your 5-year policy return of 4.9% was above the U.S. Public median of 4.8% and equal to the peer median of 4.9%.

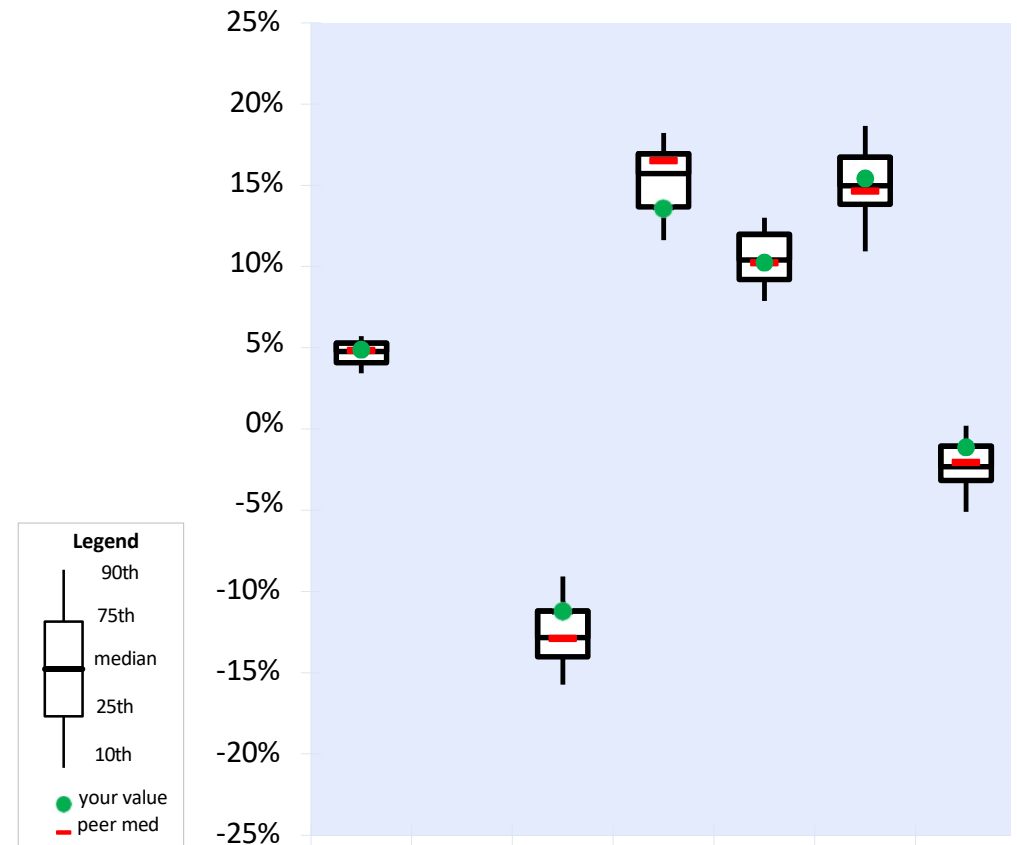
Your policy return is the return you could have earned passively by indexing your investments according to your policy mix.

Having a higher or lower relative policy return is not necessarily good or bad. Your policy return reflects your investment policy, which should reflect your:

- Long term capital market expectations
- Liabilities
- Appetite for risk

Each of these three factors is different across funds. Therefore, it is not surprising that policy returns often vary widely between funds.

U.S. Public policy returns - quartile rankings



	5-year	2022	2021	2020	2019	2018
You	4.9%	-11.2%	13.6%	10.2%	15.4%	-1.1%
Peer median	4.9%	-12.9%	16.5%	10.2%	14.7%	-2.0%
U.S. Public median	4.8%	-12.8%	15.7%	10.4%	15.0%	-2.3%

Your 5-year policy return of 4.9% was close to the U.S. Public median of 4.8% primarily because of:

	5-year average policy mix ¹			5-year benchmark return	
	Your Fund	U.S. Publ Avg.	More/ Less	Your Fund	U.S. Publ Avg.
Stock - U.S.	0%	17%	-17%	8.7%	8.6%
Stock - EAFE	0%	5%	-5%	2.8%	1.7%
Stock - Global	37%	14%	23%	6.0%	5.3%
Other Stock ²	0%	9%	-10%	n/a ³	n/a ³
Total Stock	37%	46%	-8%	6.0%	5.4%
Fixed income - U.S.	15%	17%	-2%	0.0%	0.2%
Fixed income - Inflation indexed	0%	3%	-3%	n/a ³	1.5%
Cash	1%	-1%	2%	n/a ³	1.2%
Other Fixed Income ²	6%	7%	-1%	n/a ³	n/a ³
Total Fixed Income	22%	26%	-4%	0.9%	-0.1%
Global TAA	1%	1%	0%	n/a ³	3.2%
Multi-strategy funds	3%	3%	-1%	n/a ³	3.4%
REITs	2%	1%	1%	0.7%	2.3%
Real estate ex-REITs	11%	9%	3%	9.2%	8.2%
Other Real Assets ²	1%	3%	-2%	n/a ³	n/a ³
Private equity ⁴	15%	10%	5%	7.0%	6.5%
Private debt	9%	2%	7%	n/a ³	4.2%
Total	100%	100%			

1. 5-year weights are based only on plans with 5 years of continuous data.
2. Other stock includes: Stock - Emerging and Stock - ACWI x U.S.. Other fixed income includes: Fixed income - U.S. gov't and fixed income - long bonds. Other real assets include: Commodities, Natural resources and Infrastructure.
3. A value of 'n/a' is shown if asset class returns are not available for the full 5 years or if they are broad and incomparable.
4. You have 2% policy allocation to Private Investment Partnerships (PIP), which is included in your Private Equity policy weighting.

Differences in policy return are caused by differences in policy mix and benchmarks. At the end of 2022 your policy mix compared to your peers and the U.S. Public universe as follows:

Policy asset mix

Asset class	Your fund		Peer avg. 2022	U.S. Publ avg. 2022
	2018	2022		
Stock - U.S.	0%	0%	14%	18%
Stock - EAFE	0%	0%	3%	4%
Stock - Global	40%	34%	17%	13%
Other Stock ¹	0%	0%	8%	9%
Total Stock	40%	34%	42%	45%
Fixed income - U.S.	16%	14%	16%	16%
Fixed income - Inflation indexed	0%	0%	3%	3%
Fixed income - High yield	2%	3%	1%	1%
Fixed income - Emerging	4%	1%	1%	1%
Public mortgages	0%	1%	0%	0%
Cash	0%	1%	0%	-1%
Other Fixed Income ¹	3%	0%	6%	5%
Total Fixed Income	24%	19%	27%	26%
Global TAA	0%	2%	0%	1%
Multi-strategy funds	3%	2%	3%	3%
Natural resources	0%	0%	1%	1%
Infrastructure	0%	0%	1%	1%
REITs	3%	2%	0%	1%
Real estate ex-REITs	11%	12%	10%	9%
Other Real Assets ¹	0%	0%	1%	1%
Private equity ²	12%	18%	13%	11%
Private debt	7%	12%	2%	2%
Total	100%	100%	100%	100%

1. Other stock includes: Stock - Emerging and Stock - ACWI x U.S.. Other fixed income includes: Fixed income - U.S. gov't and fixed income - long bonds. Other real assets include: Commodities.
2. You have 2% policy allocation to Private Investment Partnerships (PIP), which is included in your Private Equity policy weighting.

Net value added is the component of total return from active management. Your 5-year net value added was 2.2%.

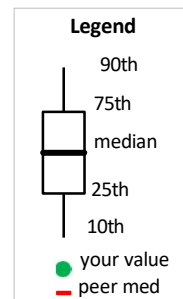
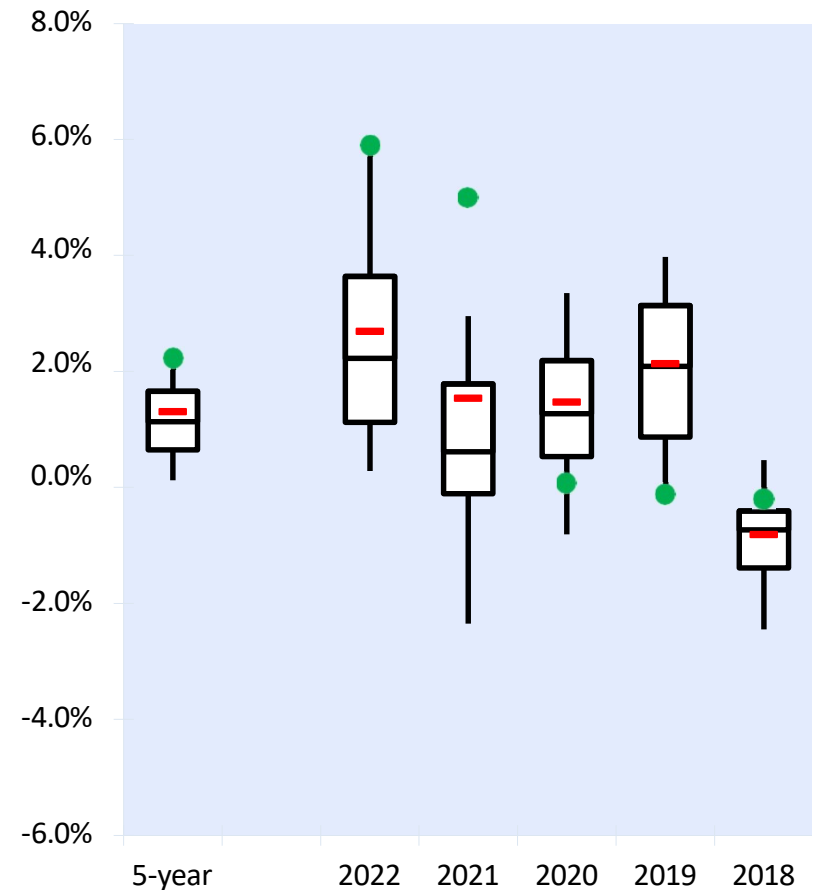
Net value added equals total net return minus policy return.

Value added for Virginia Retirement System

Year	Net return	Policy return	Net value added
2022	-5.3%	-11.2%	5.9%
2021	18.6%	13.6%	5.0%
2020	10.3%	10.2%	0.1%
2019	15.3%	15.4%	-0.1%
2018	-1.3%	-1.1%	-0.2%
5-Year	7.1%	4.9%	2.2%

Your 5-year net value added of 2.2% compares to a median of 1.3% for your peers and 1.1% for the U.S. Public universe.

U.S. Public net value added - quartile rankings

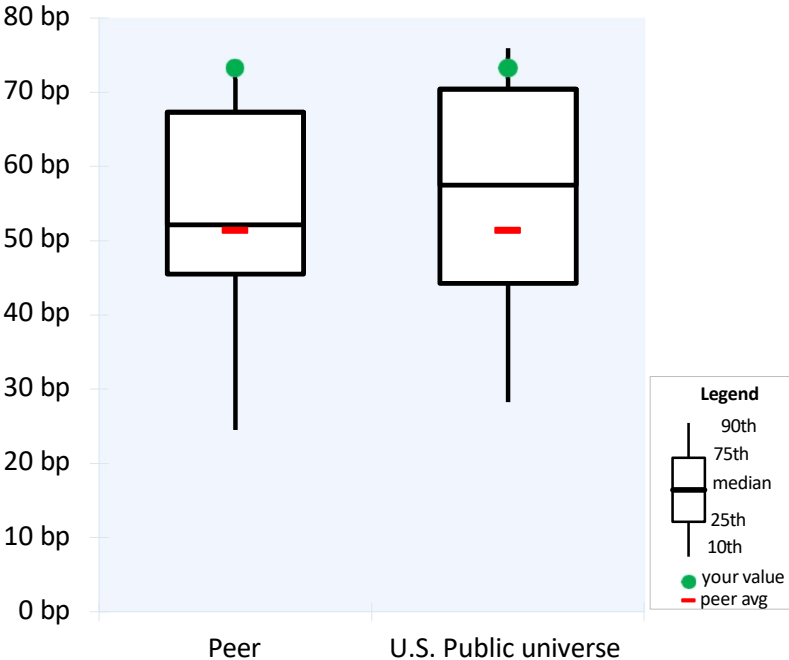


You	2.2%	5.9%	5.0%	0.1%	-0.1%	-0.2%
Peer median	1.3%	2.7%	1.5%	1.5%	2.1%	-0.8%
U.S. Public median	1.1%	2.2%	0.6%	1.3%	2.1%	-0.7%

Benchmark cost analysis suggests that your fund was slightly low cost by 3.5 basis points in 2022.

Comparison of costs before adjusting for asset mix:

Before adjusting for differences in asset mix, your total investment cost of 73.3 bps was above the peer median of 52.1 bps.



Comparison of costs after adjusting for asset mix:

Your benchmark cost is an estimate of what your cost would be given your actual asset mix and the median costs that your peers pay for similar services. It represents the cost your peers would incur if they had your actual asset mix.

Your cost versus benchmark

	\$000s	basis points
Your total investment cost	737,046	73.3 bp
Your benchmark cost	771,835	76.7 bp
Your excess cost	(34,789)	(3.5) bp

Your fund was slightly low cost because it had a lower cost implementation style and it paid less than peers for similar services.

Reasons for your low cost status

	Excess Cost/ (Savings)	
	\$000s	bps
1. Lower cost implementation style		
• More active management (vs. lower cost passive)	24,115	2.4
• More in-house management (vs. external management)	(15,724)	(1.6)
• More evergreen relationships (vs. traditional partnerships)	(28,545)	(2.8)
• Less fund of funds	(1,314)	(0.1)
• More co-investments (vs. traditional partnerships)	(5,456)	(0.5)
• More overlays	911	0.1
	<u>(26,012)</u>	<u>(2.6)</u>
2. Paying less than peers for similar services		
• External investment management costs	(10,947)	(1.1)
• Internal investment management costs	2,378	0.2
• Oversight, custodial & other costs	(207)	(0.0)
	<u>(8,776)</u>	<u>(0.9)</u>
Total savings	(34,789)	(3.5)

If the assets you manage in-house were managed externally and you paid peer median costs, your cost would have been higher by approximately \$58.09 million or 5.8 bps.

Cost savings achieved by managing assets in-house

	Style	Your avg holdings (mils)	Cost in bps			Cost/ -Savings \$000s
			Your	Peer median	More/ -less	
<i>Assets managed in-house</i>		(A)			(B)	(A X B)
Stock - U.S. large cap	active	7,781	3.0	25.6	(22.6)	(17,580)
Stock - U.S. small cap	active	648	4.5	62.2	(57.7)	(3,738)
Stock - EAFE	active	3,548	11.3	45.9	(34.5)	(12,252)
Stock - Emerging	active	644	5.7	49.2	(43.5)	(2,803)
Stock - Global	active	359	5.3	37.1	(31.8)	(1,141)
Fixed income - U.S.	active	11,134	4.0	12.5	(8.5)	(9,466)
Fixed income - Emerging	active	358	13.3	32.8	(19.4)	(696)
Fixed income - High yield	active	329	13.3	31.3	(18.0)	(591)
REITs ¹	passive	501	1.5	5.9	(4.4)	(222)
REITs	active	810	3.0	36.4	(33.4)	(2,708)
Real estate ²	active	1,811	62.1	98.1	(36.1)	(6,536)
Global TAA	active	109	19.4	51.7	(32.2)	(351)
Total savings due to in-house management						(58,086)
Total in basis points						(5.8) bp

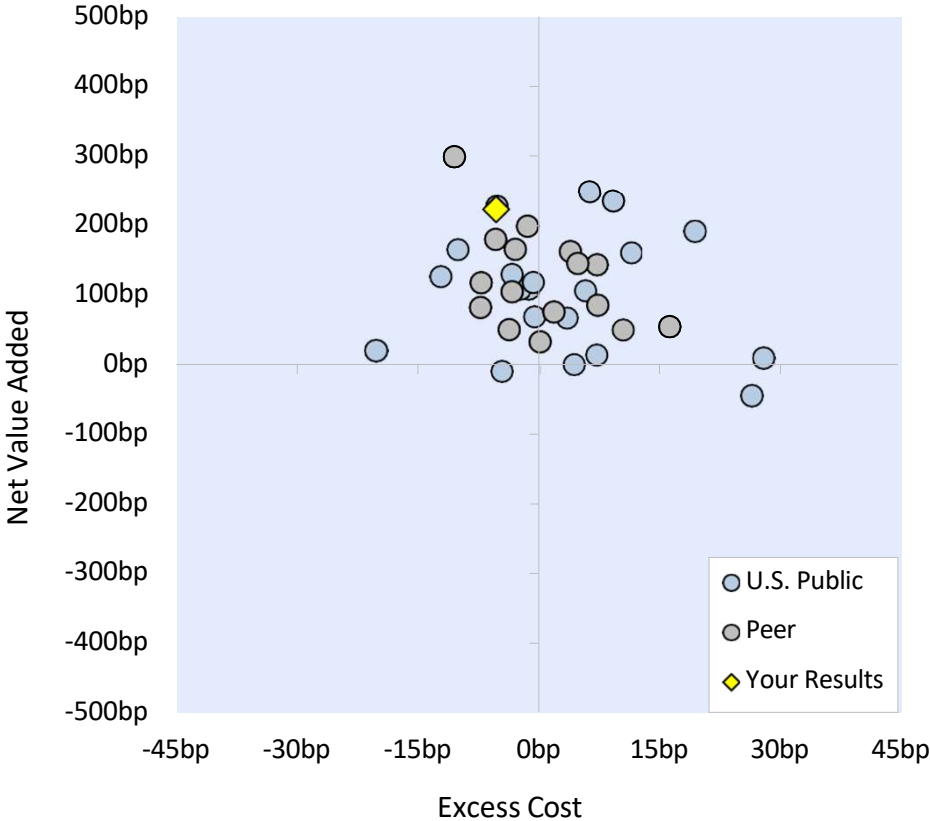
1. Universe median was used due to insufficient peer data points.

2. Reflects investments in high touch joint ventures which are treated as being close to internally managed assets.

Your 5-year and 10-year performance placed in the positive value added, low cost quadrant of the cost effectiveness chart.

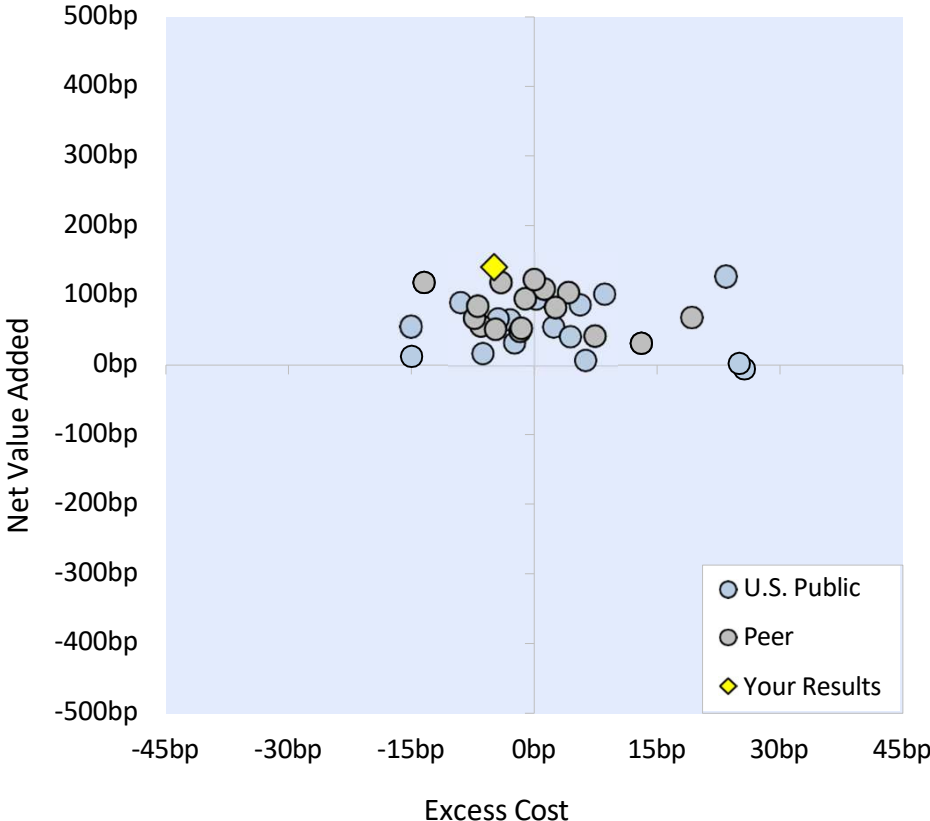
5-Year net value added versus excess cost

(Your 5-year: net value added 223 bps, cost savings 7 bps¹)



10-year net value added versus excess cost

(Your 10-year: net value added 140 bps, cost savings 6 bps²)



1. Your 5-year cost savings of 7 basis points is the average of your cost savings for the past 5 years.
2. Your 10-year cost savings of 6 basis points is the average of your cost savings for the past 10 years.

	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	5-year	10-year
Net value added	590.0 bp	500.0 bp	8.0 bp	(12.0) bp	(19.0) bp	49.0 bp	(16.5) bp	88.0 bp	80.0 bp	70.0 bp	222.9 bp	139.8 bp
Excess cost	(3.5) bp	(5.5) bp	(7.3) bp	(5.7) bp	(5.0) bp	(5.6) bp	(4.2) bp	(1.0) bp	(4.0) bp	(6.8) bp	(5.4) bp	(4.9) bp

Summary of key takeaways

Returns

- Your 5-year net total return was 7.1%. This was above both the U.S. Public median of 5.9% and the peer median of 6.2%.

Value added

- Your 5-year net value added was 2.2%. This was above both the U.S. Public median of 1.1% and the peer median of 1.3%.

Cost and cost effectiveness

- Your investment cost of 73.3 bps was below your benchmark cost of 76.7 bps. This suggests that your fund was slightly low cost compared to your peers.
- Your fund was slightly low cost because it had a lower cost implementation style and it paid less than peers for similar services.

Thank you



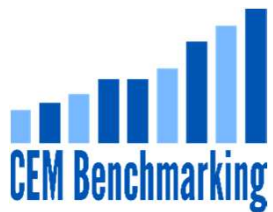
Christopher Doll

Director, Client Coverage

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CEMbenchmarking.com





Report

The Benefits and Actuarial Committee met on November 16, 2023, and took up the following matters:

APPROVAL OF MINUTES

The Committee approved the minutes of its October 18, 2023, meeting.

2023 ACTUARIAL VALUATION RESULTS FOR POLITICAL SUBDIVISION RETIREMENT PLANS, THE VIRGINIA LOCAL DISABILITY PROGRAM (VLDP), LOCAL HEALTH INSURANCE CREDIT (HIC), AND THE LINE OF DUTY ACT (LODA) FUND

Jim Anderson, Becky Stouffer and Kurt Dosson from the VRS plan actuary, Gabriel, Roeder, Smith & Company (GRS), presented the June 30, 2023, actuarial valuation results for the Political Subdivision Retirement Plans, the Virginia Local Disability Program (VLDP), the Local Health Insurance Credit (HIC), and the Line of Duty Act (LODA) fund. The VRS actuary conducts annual valuations as of the close of the fiscal year (June 30). In odd-numbered years the valuations are used to establish employer contribution rates. The results in even-numbered years are shared with the Board of Trustees to inform the Board of any emerging trends or indications of the magnitude and direction of contribution rates.

Key points from the political subdivision retirement plans, local HIC and VLDP presentation include:

- The June 30, 2023, valuations are used to set the contribution rates for fiscal years 2025 and 2026.
- Unfunded liability as of June 30, 2023, was re-amortized over a 20-year period, collapsing bases created from 2013-2023 into one new base for each plan.
- Pension rates no longer contain an estimate of the DC hybrid employer contributions, representing only the defined benefit portion.
- Pension rates decreased from the prior rate setting for 182 of the 594 local plans or approximately 31% of employers. For 223 employers, or nearly 38%, the rates will increase by less than 1.0% of covered payroll, and for the remaining 189 employers, or 31% of employers, rates are expected to increase over 1.0% of covered payroll compared to the prior rate setting.
- HIC employer rates for 160 of the 234 employers, nearly 70%, will remain unchanged from the prior rate setting due to funding levels triggering plan surcharges which keep funding at the prior higher rate until a certain funded status is achieved. While funded statuses are improving, over half of the local HIC plans are still below 50% funded.
- VLDP rates for both Teachers and Political Subdivision plans decreased slightly from the prior rate setting due to favorable plan experience.

Ms. Stouffer and Mr. Dosson provided the results for the Line of Duty Act (LODA) Fund.

Key points from the LODA fund presentation include:

- The LODA plan is a pay-as-go plan that must collect the required funds to pay benefits expected to be incurred over the coming year.

- LODA fund premiums are inherently expected to increase each rate setting as the primary benefit is health insurance coverage which is expected to increase each year.

While the proposed two-year rate for LODA increases from \$830.00 to \$995.00 per FTE, this is below the projected rate from last year due to lower than expected healthcare cost increases along with favorable demographic experience.

Ms. Stouffer, Mr. Anderson and Mr. Dosson of GRS will also deliver an abbreviated version of their presentation to the full Board of Trustees on November 16, 2023.

Following some discussion, the Committee recommended approval of the following action to the full Board of Trustees:

Request for Board Action: After considering the recommendations of its Plan Actuary, the Board accepts the June 30, 2023, valuation report for political subdivisions and the Health Insurance Credit (HIC) for certain political subdivisions; approves a contribution rate of 0.32% for constitutional officers, a rate of 0.26% for social services employees, and a contribution rate of 0.17% for general registrars; approves a contribution rate of 0.45% for the Virginia Local Disability Program (VLDP), including self-funded Long-Term Care for Teachers and a rate of 0.74% for VLDP, including self-funded Long-Term Care for Political Subdivisions; and approves a full-time equivalent premium rate of \$995.00 for the Line of Duty Death and Health Benefits Trust Fund (Fund), all for both FY 2025 and FY 2026, to be effective July 1, 2024.

INFORMATION ITEM

2024 Committee Meeting Schedule:

- February 7 at 1:00 p.m.
- April 17 at 1:00 p.m.
- June 12 at 1:00 p.m.
- October 16 at 1:00 p.m.
- November 14 at 10:00 a.m.

Submitted to the Board of Trustees on November 16, 2023.

John M. Bennett, Chair
Benefits and Actuarial Committee



Approve contribution rates for political subdivisions, the Health Insurance Credit for certain political subdivisions, the Virginia Local Disability Program and the Line of Duty Act Fund, effective for FY 2025 and FY 2026.

Requested Action

After considering the recommendations of its Plan Actuary, the Board accepts the June 30, 2023, valuation report for political subdivisions and the Health Insurance Credit (HIC) for certain political subdivisions; approves a contribution rate of 0.32% for constitutional officers, a rate of 0.26% for social services employees, and a contribution rate of 0.17% for general registrars; approves a contribution rate of 0.45% for the Virginia Local Disability Program (VLDP), including self-funded Long-Term Care for Teachers and a rate of 0.74% for VLDP, including self-funded Long-Term Care for Political Subdivisions; and approves a full-time equivalent premium rate of \$995.00 for the Line of Duty Death and Health Benefits Trust Fund (Fund), all for both FY 2025 and FY 2026, to be effective July 1, 2024.

Rationale for Requested Action

The certified employer contribution rates reflect the assumptions and provisions in effect as of June 30, 2023, including the assumed rate of return of 6.75%.

The employer contribution rates will go into effect on July 1, 2024.

Under *Code of Virginia* § 51.1-1403(A), the cost of HIC for retired local officers, retired general registrars (and the retired employees of each), and retired employees of a local social services board is borne by the Commonwealth and not the political subdivisions.

The Line of Duty Act (LODA) provides benefits to eligible first responders who die or become disabled in the line of duty. VRS administers, manages and invests the Fund. VRS is responsible for determining costs for the Fund in order to provide benefit payments and for collecting required contributions from participating employers.

Code of Virginia § 9.1-400.1(D) requires participating employer contributions to the Fund to be determined by the Board on a current disbursement basis (pay-as-you-go). Contributions fund the claims and administrative expenses for participating employers. The FY 2024 and FY 2025 premium rate of \$995.00 is based on a participating FTE count of 18,161.

Authority for Requested Action

Code of Virginia §§ 51.1-124.22(5) and -145 authorize the Board to determine the required contribution rate for the various employer groups in the Retirement System. *Code of Virginia* § 9.1-400.1 authorizes the Board to set the employer contribution rates for the Line of Duty Death and Health Benefits Trust Fund.

The above action is approved.

A. Scott Andrews, Chair
VRS Board of Trustees

Date



June 30, 2023 Annual Actuarial Valuation Results

**Presented by: Becky Stouffer, ASA, MAAA, FCA and
Jim Anderson, FSA, EA, MAAA, FCA**



November 16, 2023

Agenda

- Big Picture
- Highlights of Pension Valuations
- Highlights of OPEB Valuations
- Appendix





BIG PICTURE

PENSION and Other Post Employment Benefits (OPEB)



Big Picture – November Meeting Content

Pension	Other Post-Employment Benefits (OPEB)
Political Subdivisions	Health Insurance Credit (HIC) <ul style="list-style-type: none">• Political Subdivisions• Constitutional Officers• Social Services Employees• Registrars
	Virginia Local Disability Program <ul style="list-style-type: none">• Political Subdivisions• Teachers
	Line of Duty Act Fund LODA (separate presentation)



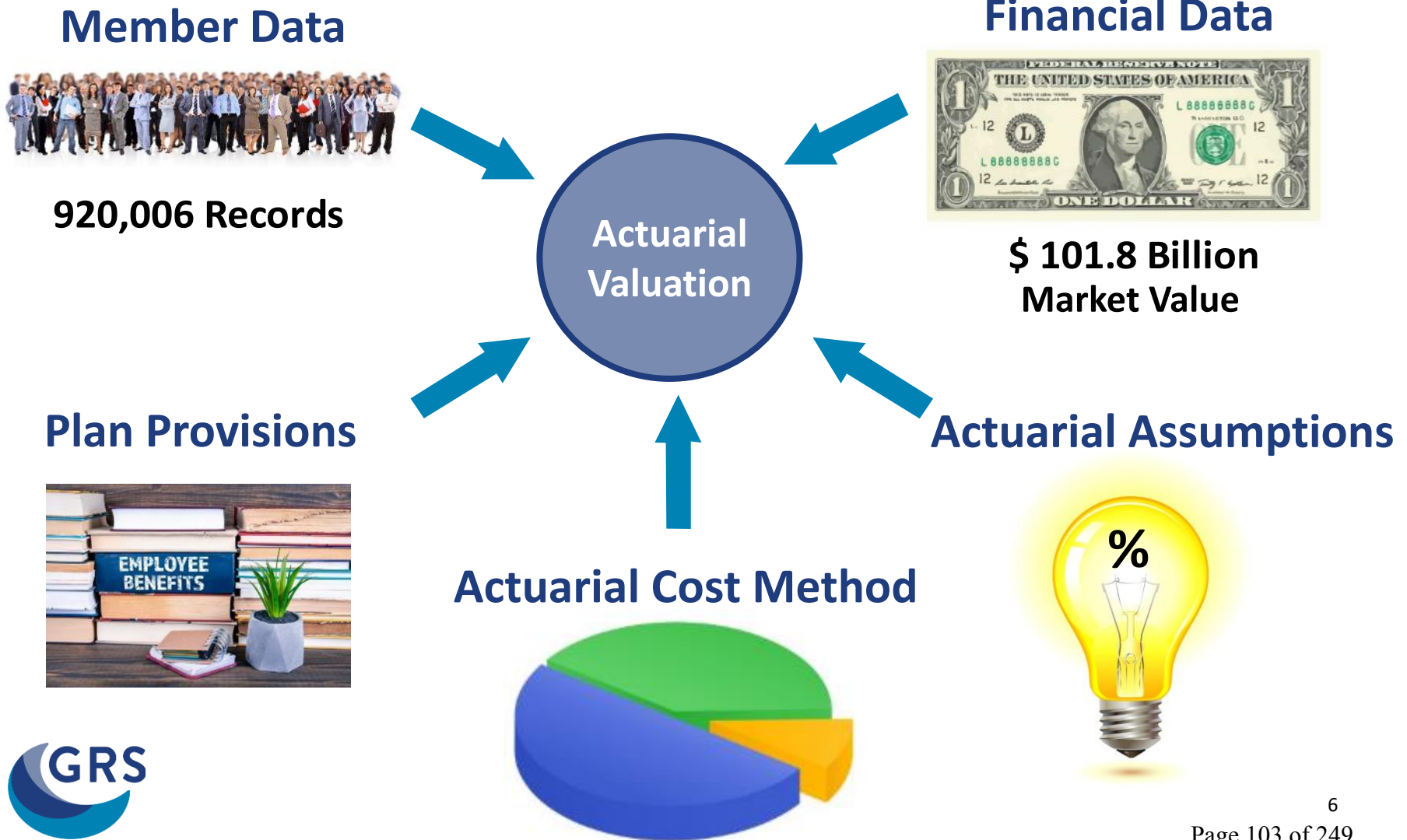
Big Picture: Actuarial Valuation Results


- June 30, 2023 Actuarial Valuations of VRS Pension and Other Post Employment Benefit (OPEB) plans
 - Measure funding progress as of June 30, 2023
 - Develop contribution rates for FYE 2025 and 2026

Odd year valuations determine contribution rates for 2 years



Actuarial Valuation Process – Statewide Pension and Political Subdivisions





JUNE 30, 2023
VALUATION RESULTS HIGHLIGHTS



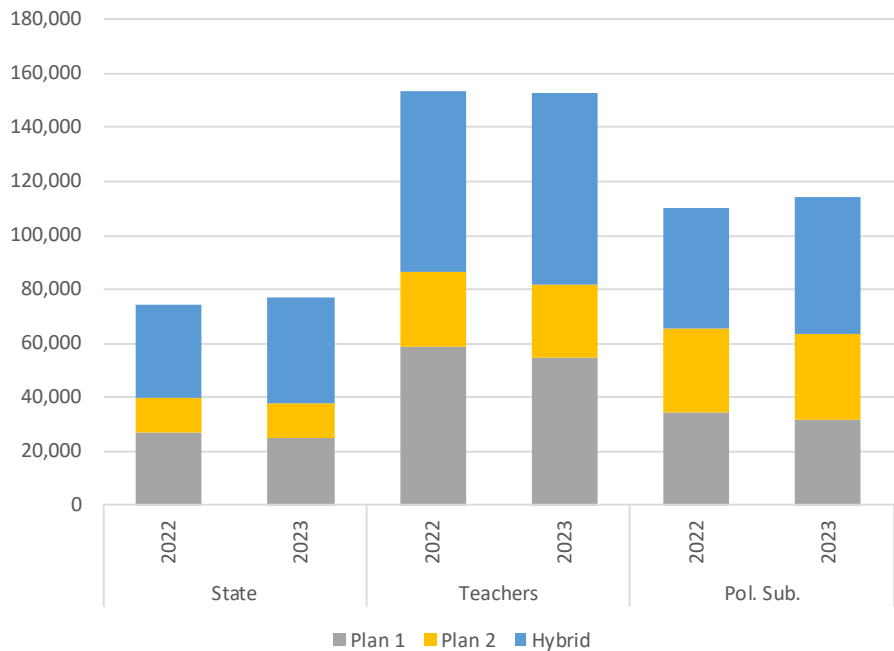
Active Participants at June 30, 2023 (Pension)

System	Plan 1	Plan 2	Hybrid	Total 2023	Total 2022	Percent Change
State	24,764	12,620	39,492	76,876	74,048	3.8%
Teachers	54,810	26,797	71,500	153,107	153,356	-0.2%
SPORS	922	960	-	1,882	1,885	-0.2%
VaLORS	1,843	5,635	-	7,478	7,289	2.6%
JRS	136	42	280	458	461	-0.7%
Pol. Sub.	31,784	31,367	51,128	114,279	109,906	4.0%
Total	114,259	77,421	162,400	354,080	346,945	2.1%

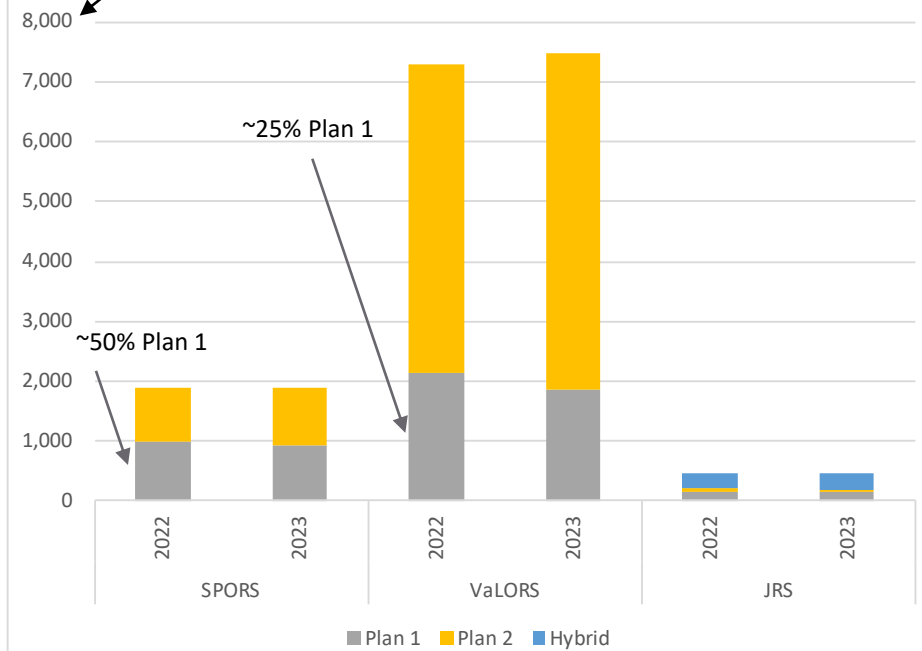


Active Participants at June 30, 2023 - Scale for Large Plans = 22X Scale for Small Plans

Pension Plans - Active Count



Pension Plans - Active Count



Counts			
System	State	Teachers	Pol. Sub.
2022	74,048	153,356	109,906
2023	76,876	153,107	114,279
% Change	3.8%	-0.2%	4.0%

Counts			
System	SPORS	VaLORS	JRS
2022	1,885	7,289	461
2023	1,882	7,478	458
% Change	-0.2%	2.6%	-0.7%

**In Total
Approx. 1/3
Remain in
Plan 1**



Actives: Changes in Average Salary

System	2022	2023	Percent Change
State	\$ 66,799	\$ 70,880	6.1%
Teachers	60,405	63,137	4.5%
SPORS	84,463	89,591	6.1%
VaLORS	51,103	53,238	4.2%
JRS	175,152	192,994	10.2%
Pol. Sub.	55,699	59,173	6.2%

Notes:

- 1) Return to Work (RTW) Payroll for 39 School Security Officers and Teachers = \$2 million
- 2) Political Subdivisions had 8 RTW (across 5 employers) with a total payroll of \$190k



VRS Additional Funding Provisions – OPEB

- Additional \$93+ million contributed from the General Fund to the Trust in June 2022 & 2023

OPEB Group	Add'l Contrib. 2022	Add'l Contrib. 2023	Total Additional 2022-2023	Funded Status Impact	Contrib. Rate Impact
HIC: State	\$8,522,746	\$27,159,085	\$35,681,831	+3.60%	-0.04%
HIC: Teachers	\$12,013,013	\$4,004,338	\$16,017,351	+1.14%	-0.01%
GLI	\$30,438,378	\$10,146,126	\$40,584,504	+1.13%	-0.01%
HIC: C. Off.	\$275,975	\$91,992	\$367,967	+1.14%	-0.01%
HIC: S. Svcs.	\$121,754	\$1,031,416	\$1,153,170	+8.01%	-0.04%
HIC: Regis.	\$6,494	\$2,165	\$8,659	+1.64%	-0.00%
TOTAL	\$51,378,360	\$42,435,122	\$93,813,482	+1.15%	-0.01%



Important to get additional funds into OPEB Plans when possible

Actuarial Value Assets 2023: 6.1% MVA Return

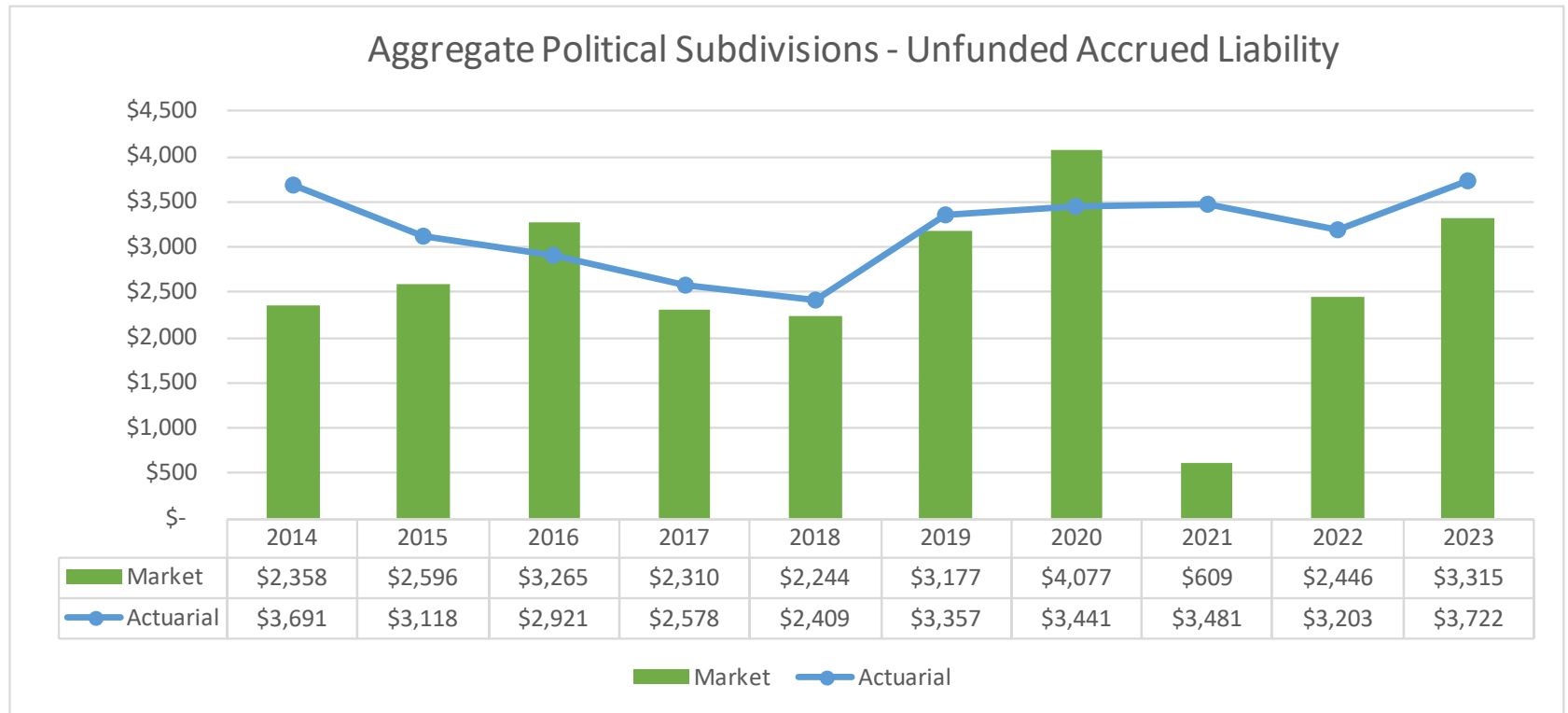
Political Subdivisions Pension – \$ Millions

	2023	2024	2025	2026	2027
Actual Investment Return	1,678				
Assumed Investment Return	1,744				
Gain/(Loss) to be Phased-in	(66)				
Phased-in Recognition					
-Current year	(13)	?	?	?	?
-1 st prior year	(360)	(13)	?	?	?
-2 nd prior year	872	(360)	(13)	?	?
-3 rd prior year	(203)	872	(360)	(13)	?
-4 th prior year	(12)	(203)	872	(360)	(13)
Total Recognized Gain/(Loss)	284	296	499	(373)	(13)

2024-2027: Expect \$0.4 billion in deferred asset GAINS



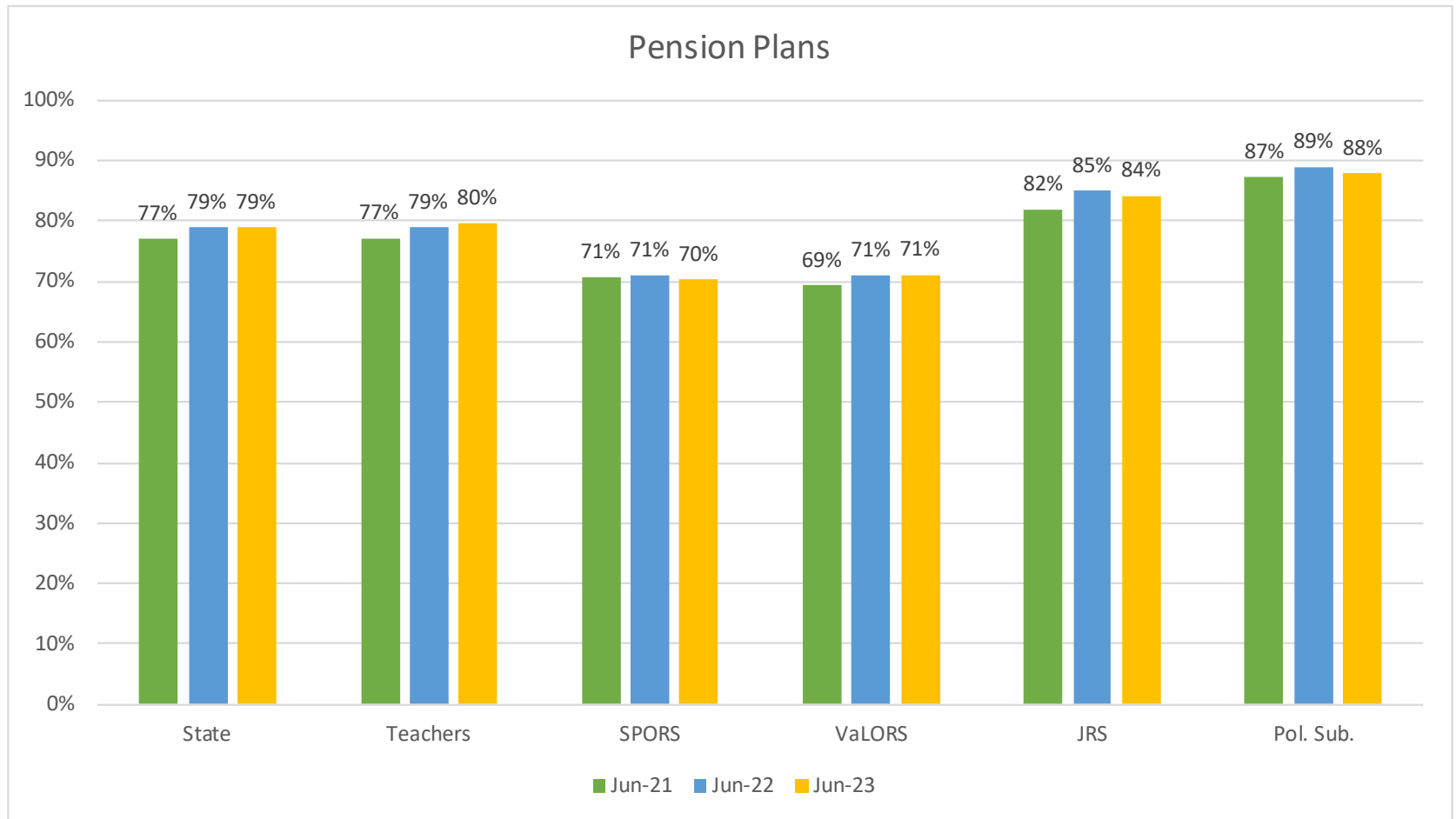
Why We Smooth Asset Returns



If all assumptions are met, unfunded liabilities will trend to Market Value basis over time



Funded Status (AVA) – Pension Plans



Funded Status (AVA) – Pension Plans, Political Subdivisions

Funded Status as of June 30, 2023 for 600 Employers

Average Funded Status

95.9%

Pol. Sub. With no Enhanced Hazardous Duty

Average Funded Status

86.0%

Pol. Sub. With Enhanced Hazardous Duty

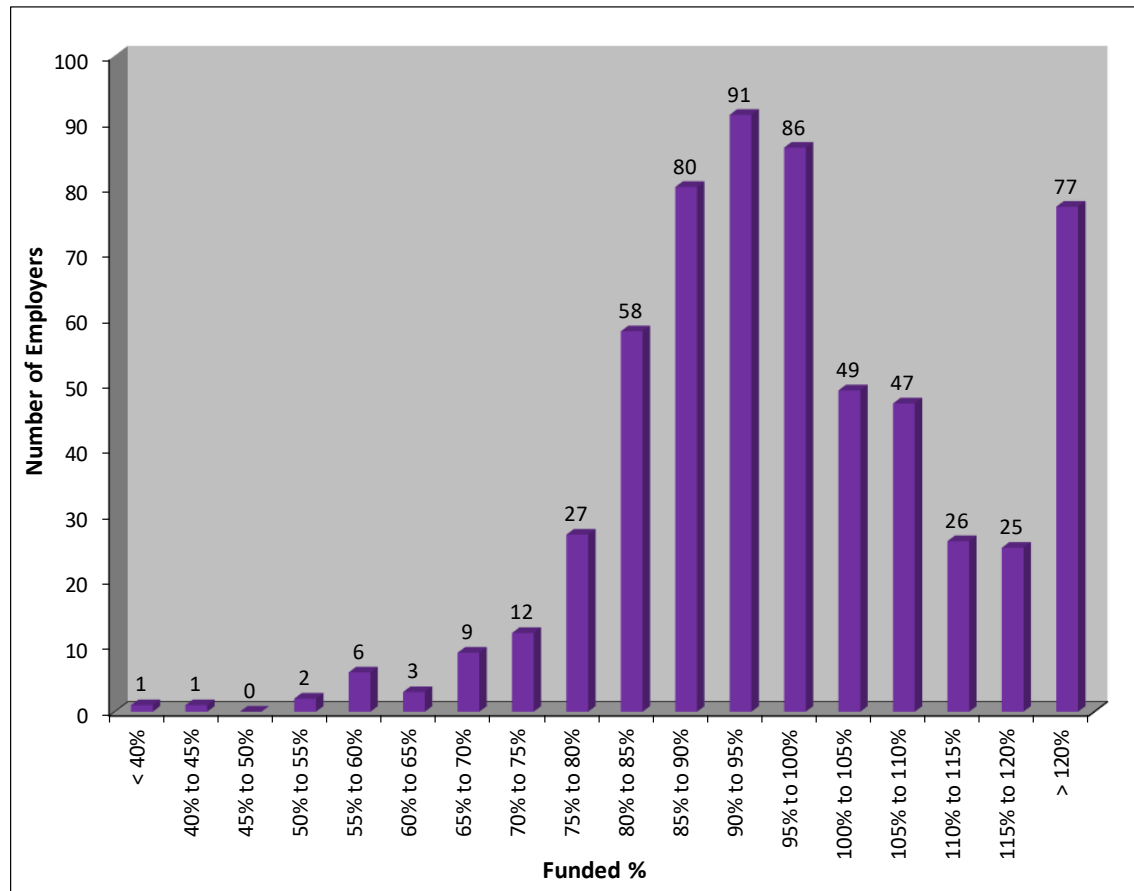


Chart shows Funded status distribution, 34 employers <75% to 224 employers > 100%

The chart above shows 600 employers; employers with 0 actives are excluded.



Calculated Employer Contributions

- Will vary significantly for System, Plan and Employer based on:

Benefit Features

Demographics

Funded Status



- Two Main Components:

Normal Cost – this represents the cost of the current year benefit earned by each active member

Amortization of Unfunded Liability – uses a systematic method (funding policy) to pay off the unfunded liability for each employer

Legislative Updates

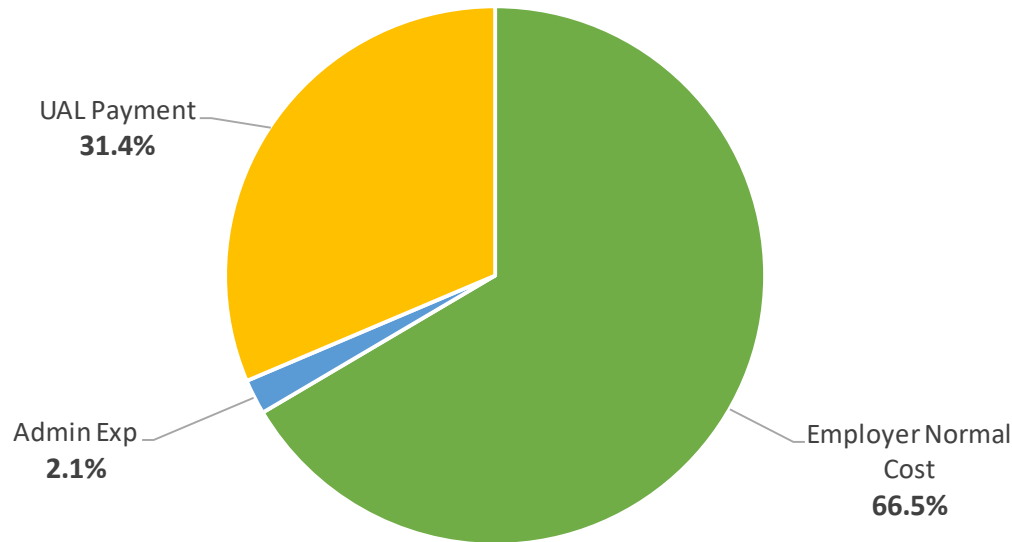
- HB 473 and SB 70 separate the employer contribution into Defined Benefit and Defined Contribution components effective for contribution rates beginning July 1, 2024
- HB 1630, SB 1289, SB 1479: Return to work
 - Required break in service reduced from 12 to 6 months for certain groups
 - Specifies that the employer shall include such employees' compensation in membership payroll for purposes of the employer contributions to VRS



Note: Political Subdivisions had 8 RTW (across 5 employers)

Calculated Pension Contributions – Political Subdivisions Average Employer

Political Subdivision Employer Rate



Normal Cost ultimately decreases to Plan 2/Hybrid level

Component	% of Pay
Employer NC	8.14%
Admin Exp	0.26%
UAL Payment	3.85%
Total:	12.25%

Note: 31.4% of aggregate Political Sub. Contribution is for UAL payment – vs. ~50% for Statewide pension plans (other than JRS)



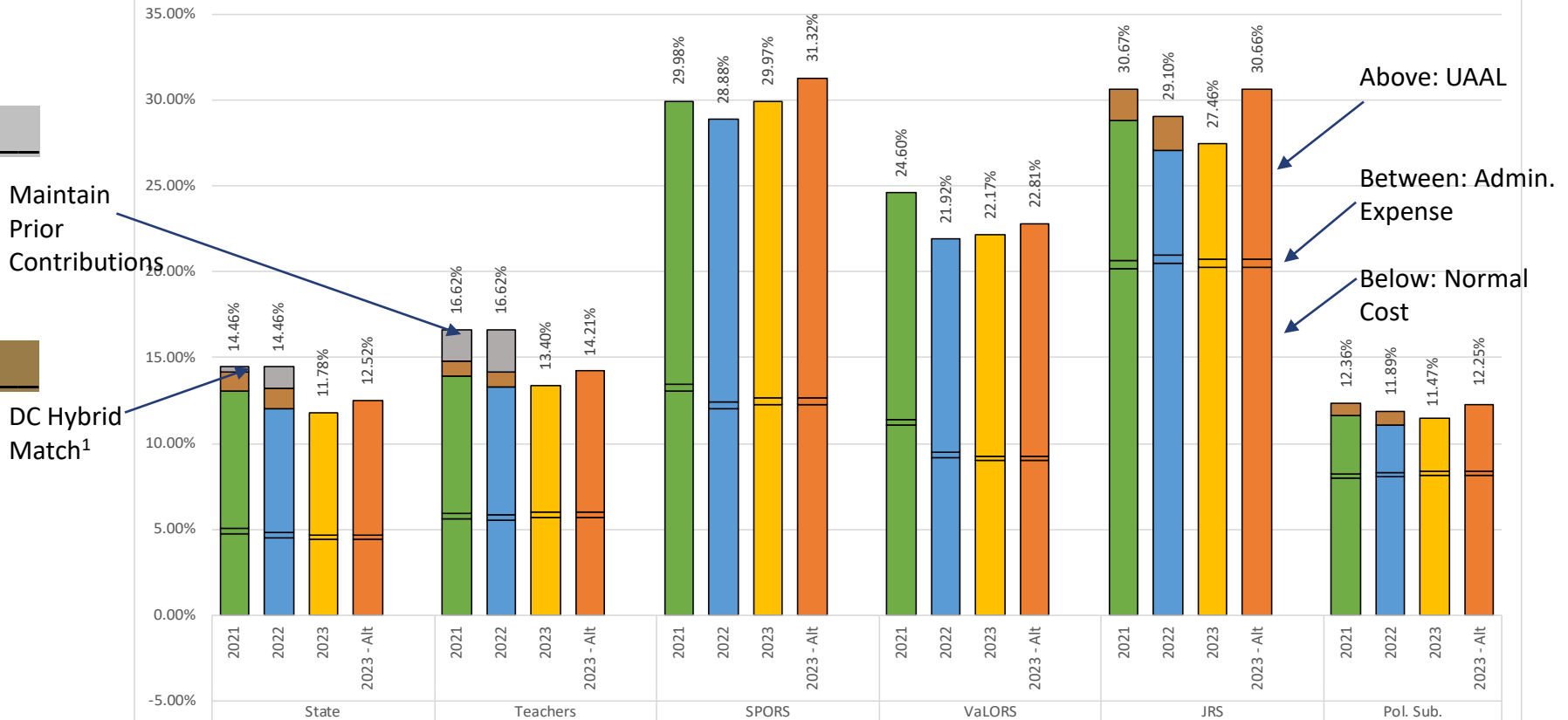
Contribution Alternative Approved in October

- Amortize June 30, 2023 Unfunded Liabilities over a refreshed 20 year period
 - Add new amortization layers at June 30, 2024, 2025, 2026, etc
- Alternative amortization schedule slightly increases Statewide contribution rates in the short term but moderates rates in the long term and saves money over time
 - Impact on Political Subdivisions similar but varies by individual plan



Actuarially Determined Employer Contribution Rates – Pension Plans

Pension Plans - Contribution Composition



	State				Teachers				SPORS				VaLORS				JRS				Pol. Sub.			
	2021	2022	2023	2023 - Alt	2021	2022	2023	2023 - Alt	2021	2022	2023	2023 - Alt	2021	2022	2023	2023 - Alt	2021	2022	2023	2023 - Alt	2021	2022	2023	2023 - Alt
Normal Cost*	5.05%	4.77%	4.65%	4.65%	5.91%	5.82%	5.96%	5.96%	13.43%	12.45%	12.64%	12.64%	11.38%	9.49%	9.27%	9.27%	20.67%	20.98%	20.74%	20.74%	8.23%	8.30%	8.40%	8.40%
Accrued Liability	8.02%	7.28%	7.13%	7.87%	8.04%	7.45%	7.44%	8.25%	16.55%	16.43%	17.33%	18.68%	13.22%	12.43%	12.90%	13.54%	8.14%	6.13%	6.72%	9.92%	3.39%	2.77%	3.07%	3.85%
Total DB Portion	13.07%	12.05%	11.78%	12.52%	13.95%	13.27%	13.40%	14.21%	29.98%	28.88%	29.97%	31.32%	24.60%	21.92%	22.17%	22.81%	28.81%	27.11%	27.46%	30.66%	11.62%	11.07%	11.47%	12.25%



* Includes Administrative Expense

¹ Hybrid DC Match decoupled beginning 2023

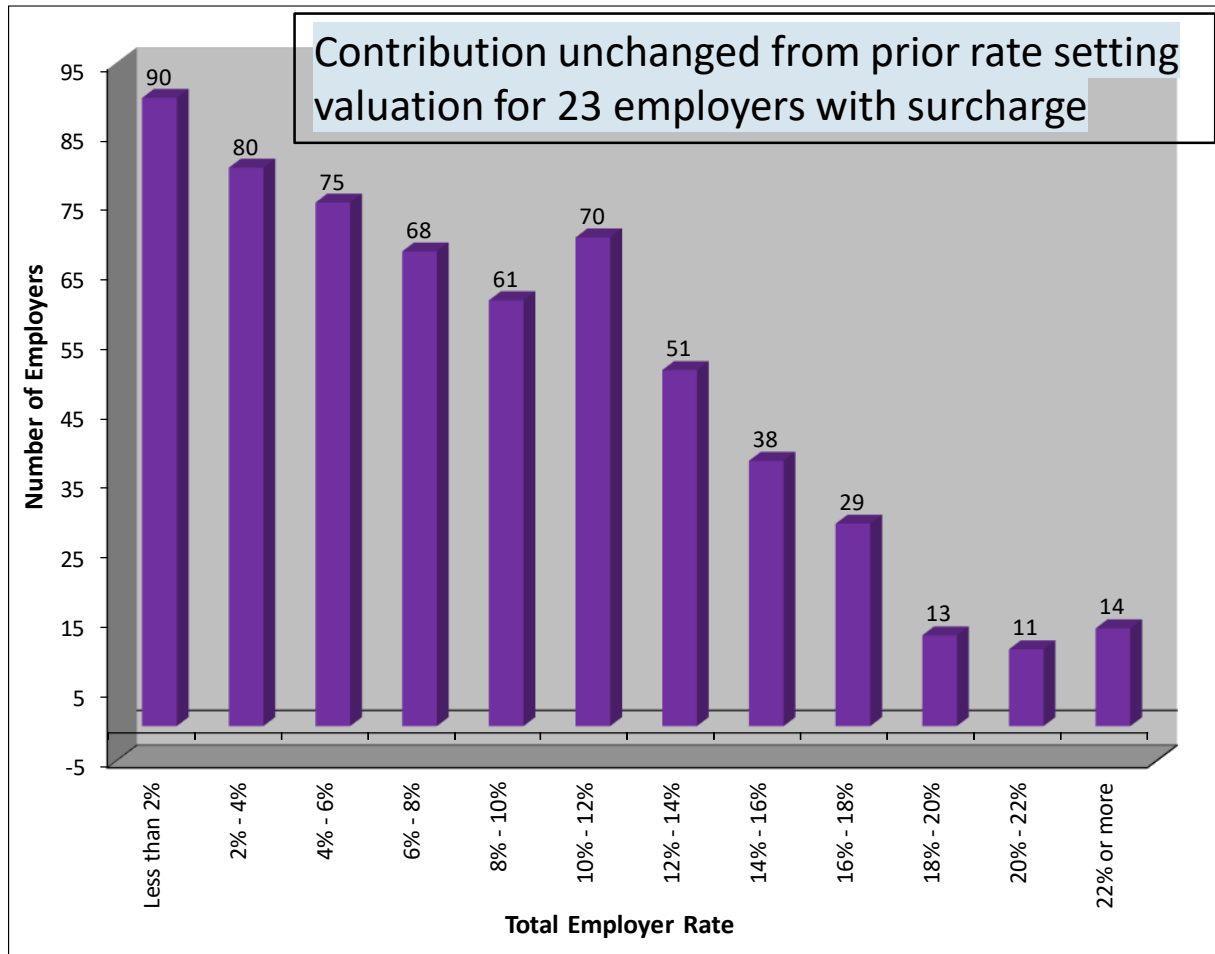
Actuarially Determined Employer Contribution (ADEC) Rates – Political Subdivisions Pension

ADEC Rate as of June 30, 2023 for 600 Employers

Average ADEC Rate

5.58%

Pol. Sub. With no Enhanced Hazardous Duty



Average ADEC Rate

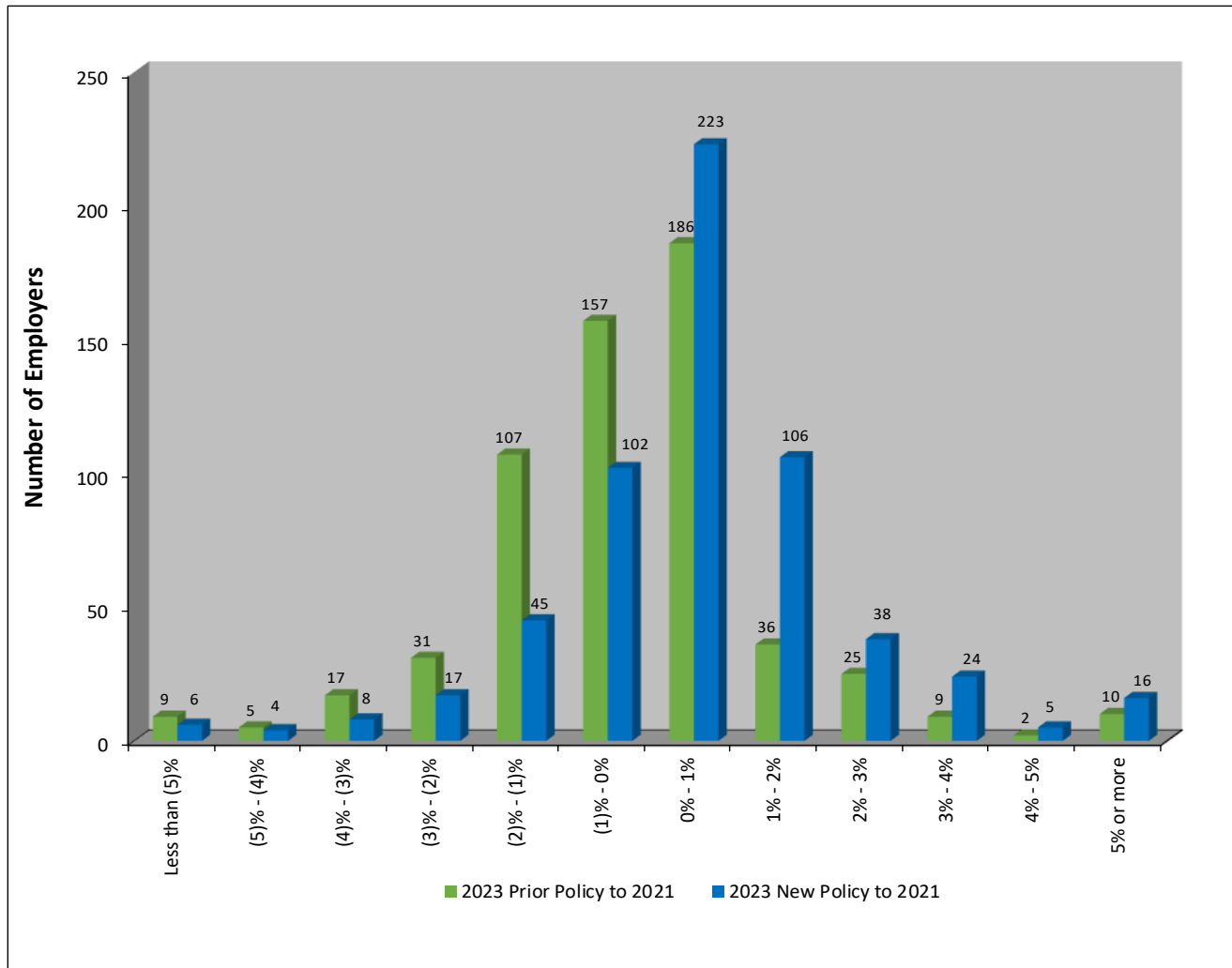
14.34%

Pol. Sub. With Enhanced Hazardous Duty



The chart above shows 600 employers; employers with 0 actives are excluded.

Change In ADEC Rates – Political Subdivisions Pension



The chart above shows 594 employers; new employers and employers with 0 actives are excluded.



Political Subdivisions: Pension Results Commentary

- Liability changes
 - 2 New Political Subdivisions for Pension
 - 23 Employers have surcharge
 - 10 Employers had surcharge in 2021 valuation
 - No Employers have additional funding charge
 - Changes in coverage
 - Salary, Temporary Supplement, and COLA experience

Pension Results Commentary

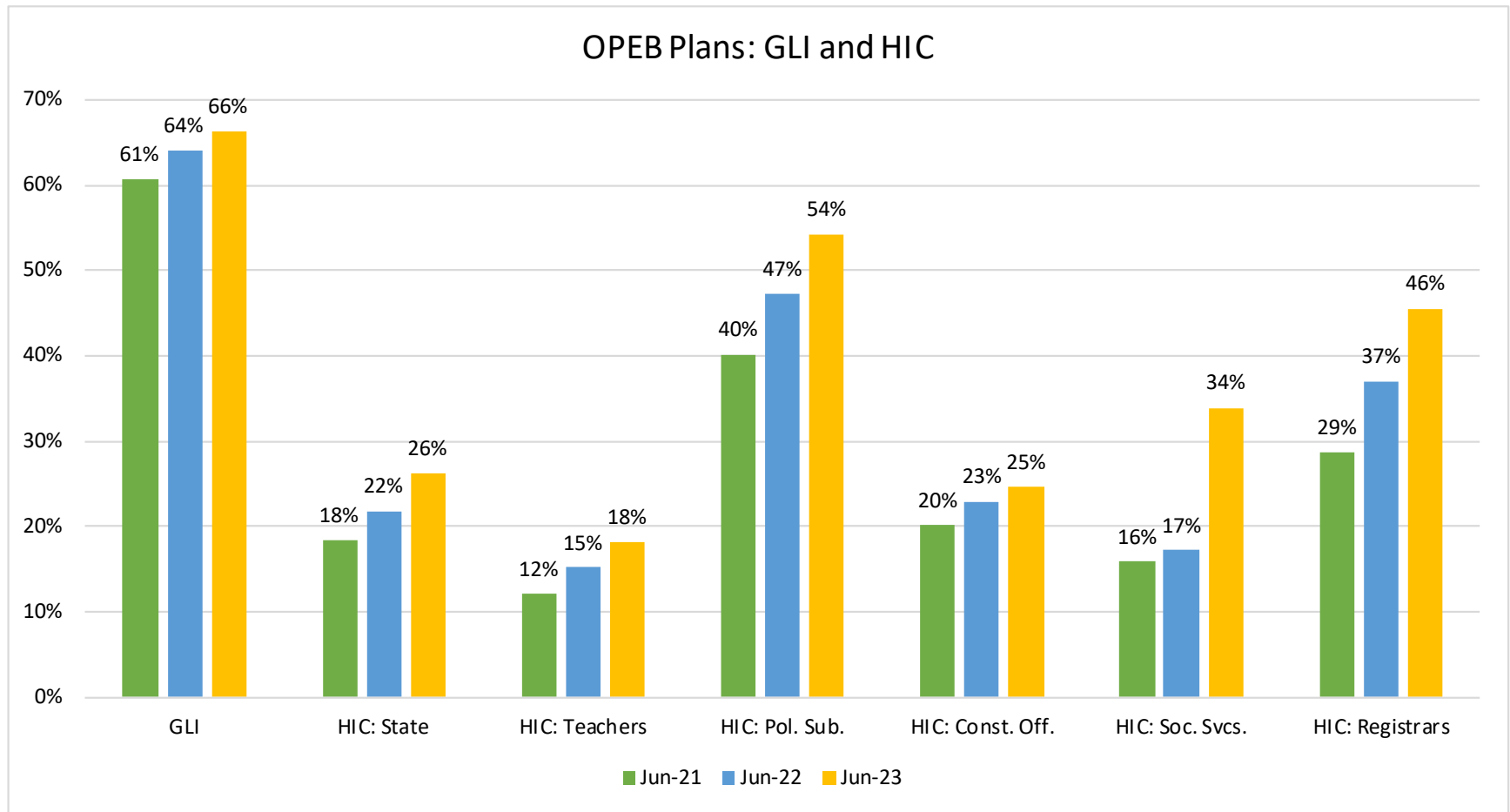
- Demographic changes vary by employer
 - Active population up for Political Subdivisions in total
 - 10 Employers account for 50% of the increase in total active population counts

OPEB: HIC Legislative Changes

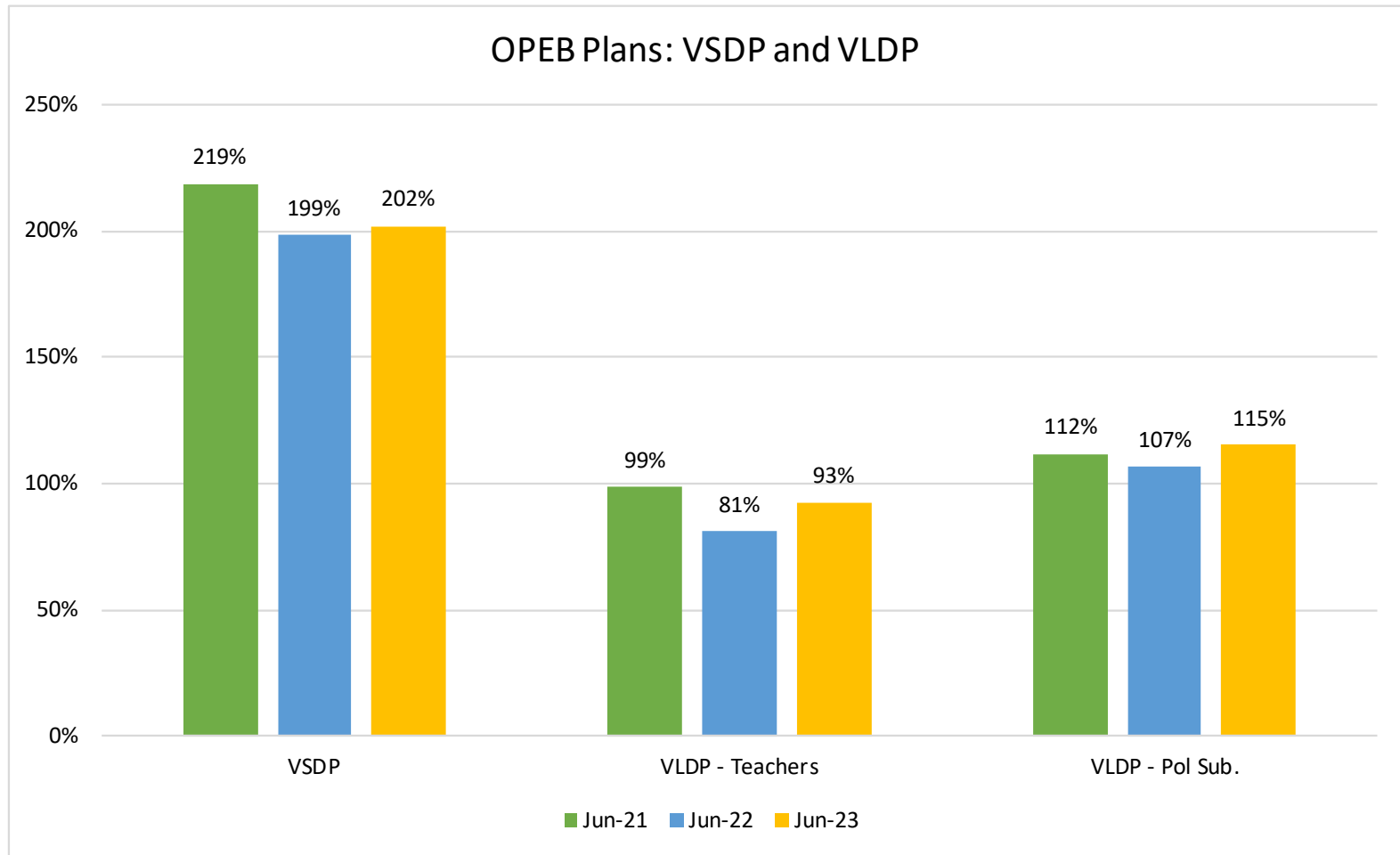
- Increases the amount of monthly health insurance credits for certain retirees beginning July 1, 2024

Retired Group	Monthly Credit Increase	Maximum
Constitutional Officers	\$1.50 to \$1.75	\$52.50
State Employees	\$4.00 to \$4.25	No change

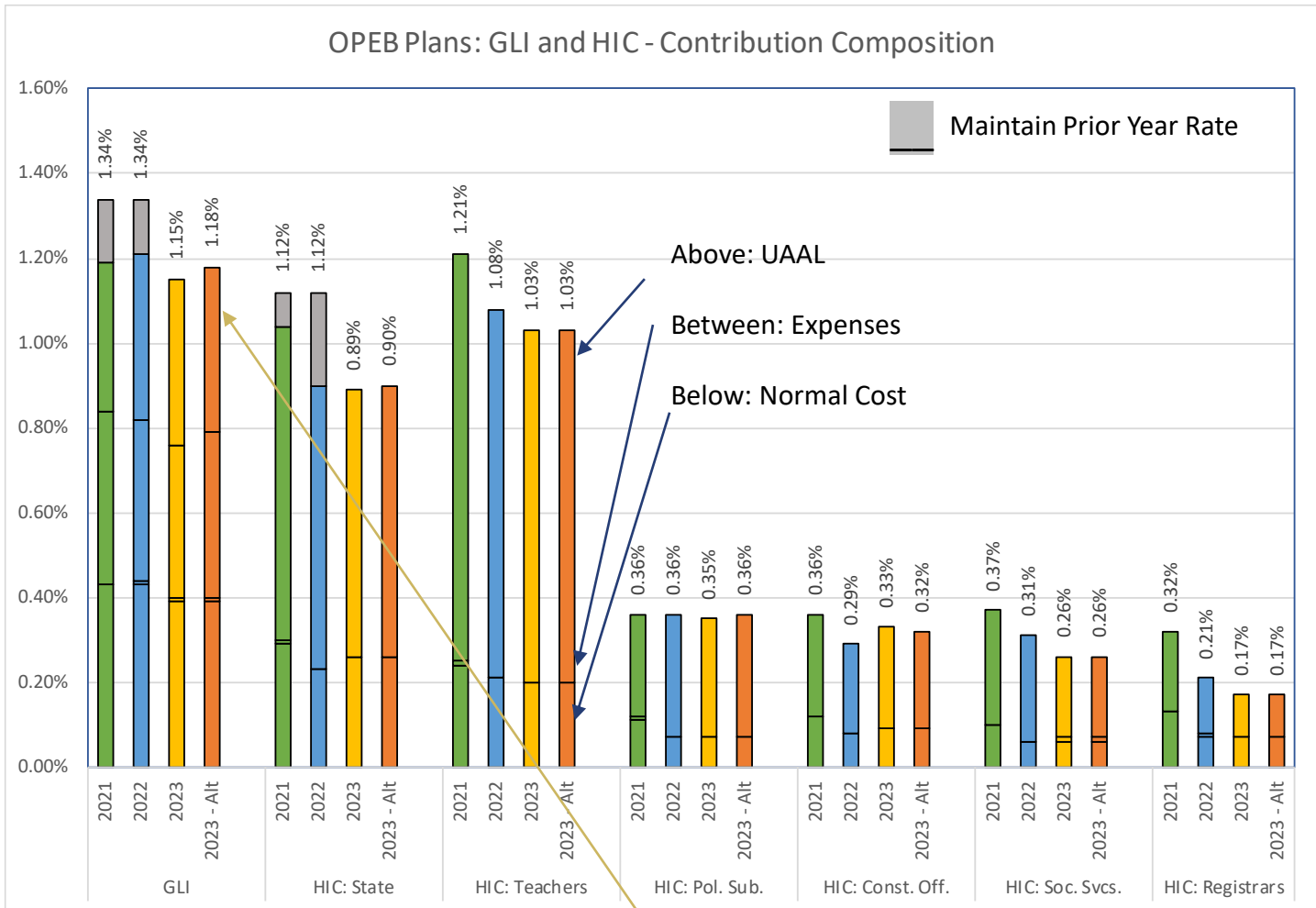
Funded Status (AVA) – OPEB Plans



Funded Status (AVA) – OPEB Plans



Actuarially Determined Employer Contribution Rates – OPEB Plans

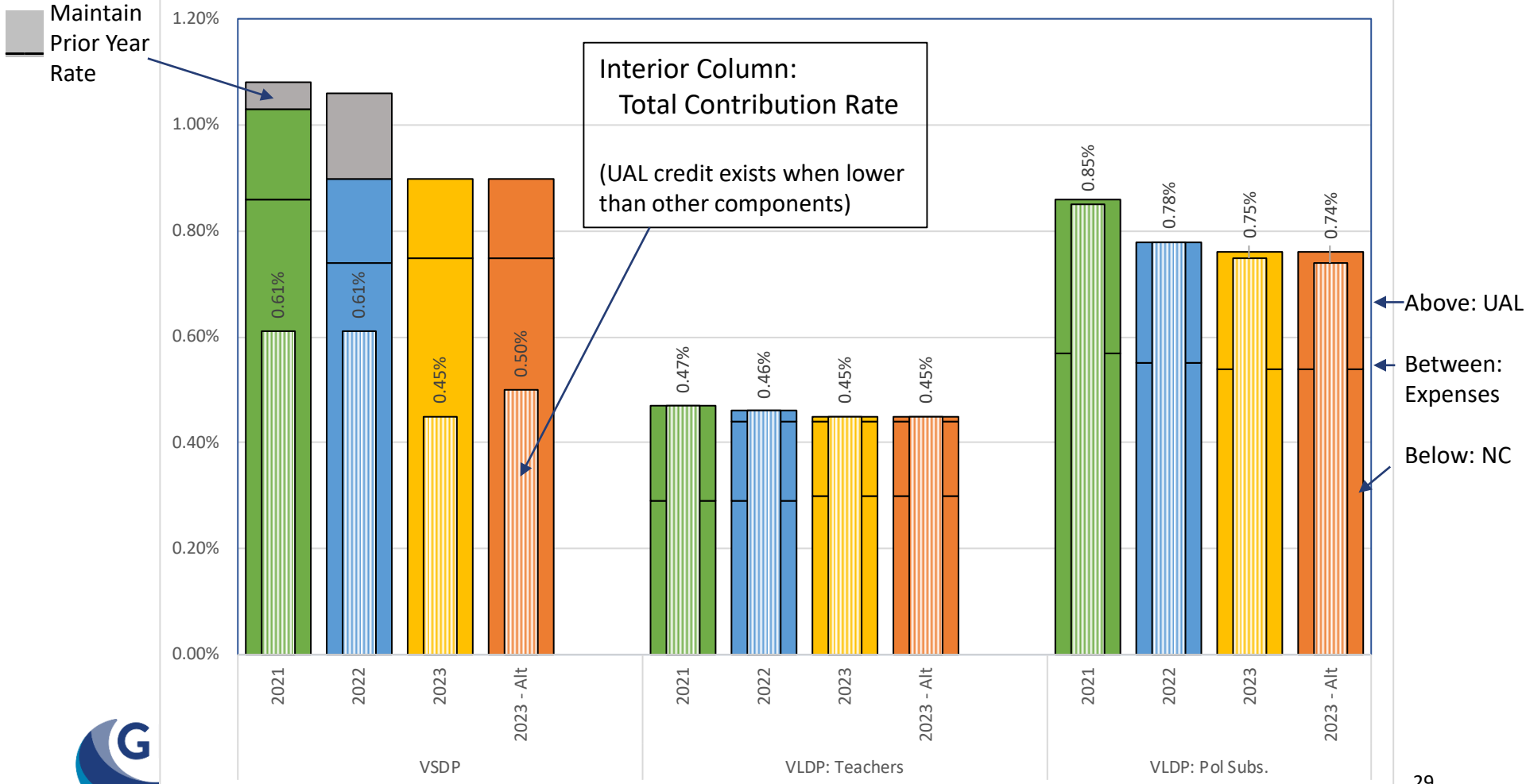


Note top 1/3 of GLI rate reflects active Life Insurance contribution



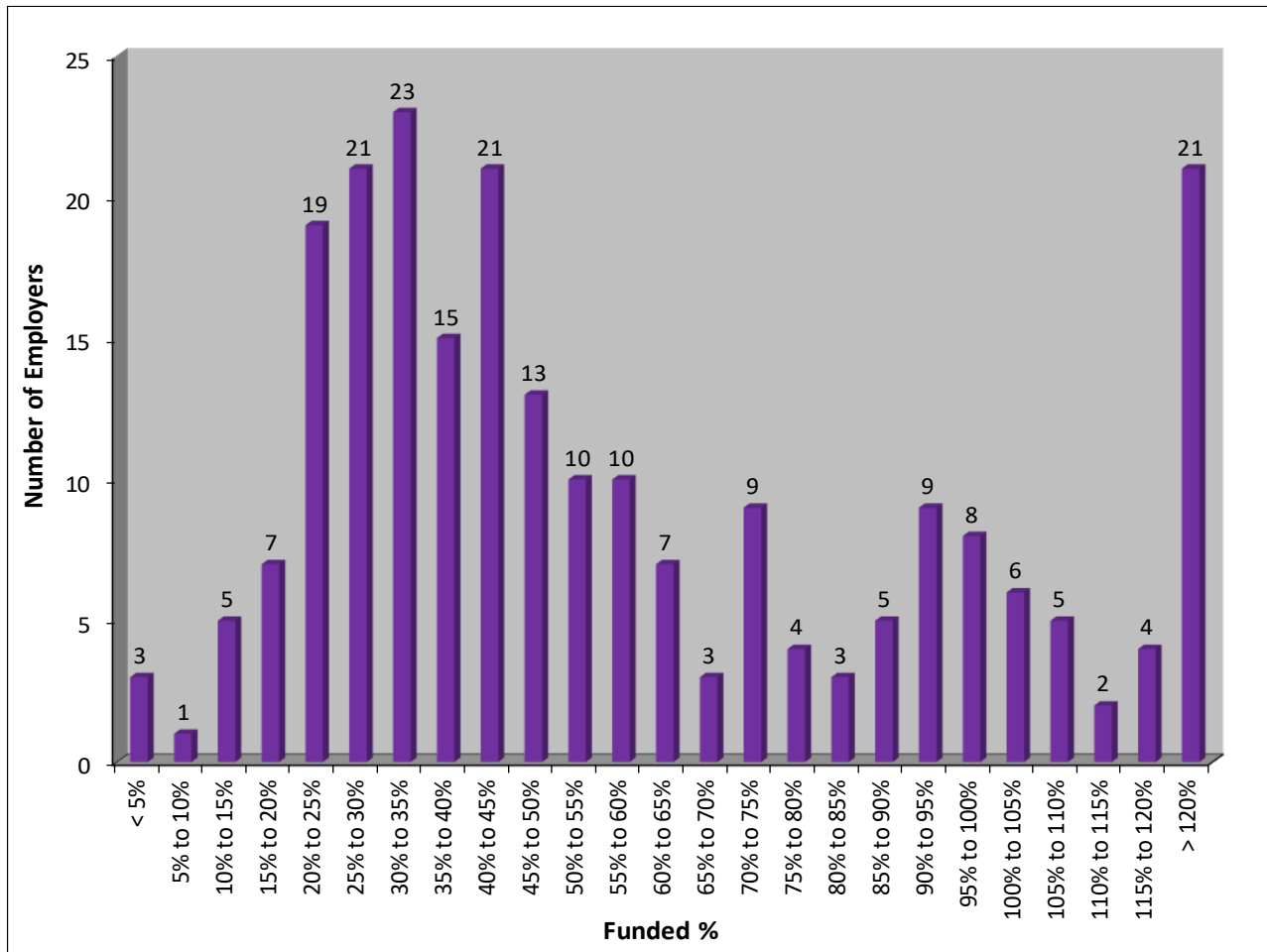
Actuarially Determined Employer Contribution Rates – OPEB Plans

OPEB Plans: VSDP and VLDP - Contribution Composition



Funded Status – OPEB HIC Political Subdivisions

Funded Status as of June 30, 2023 for 234 Employers

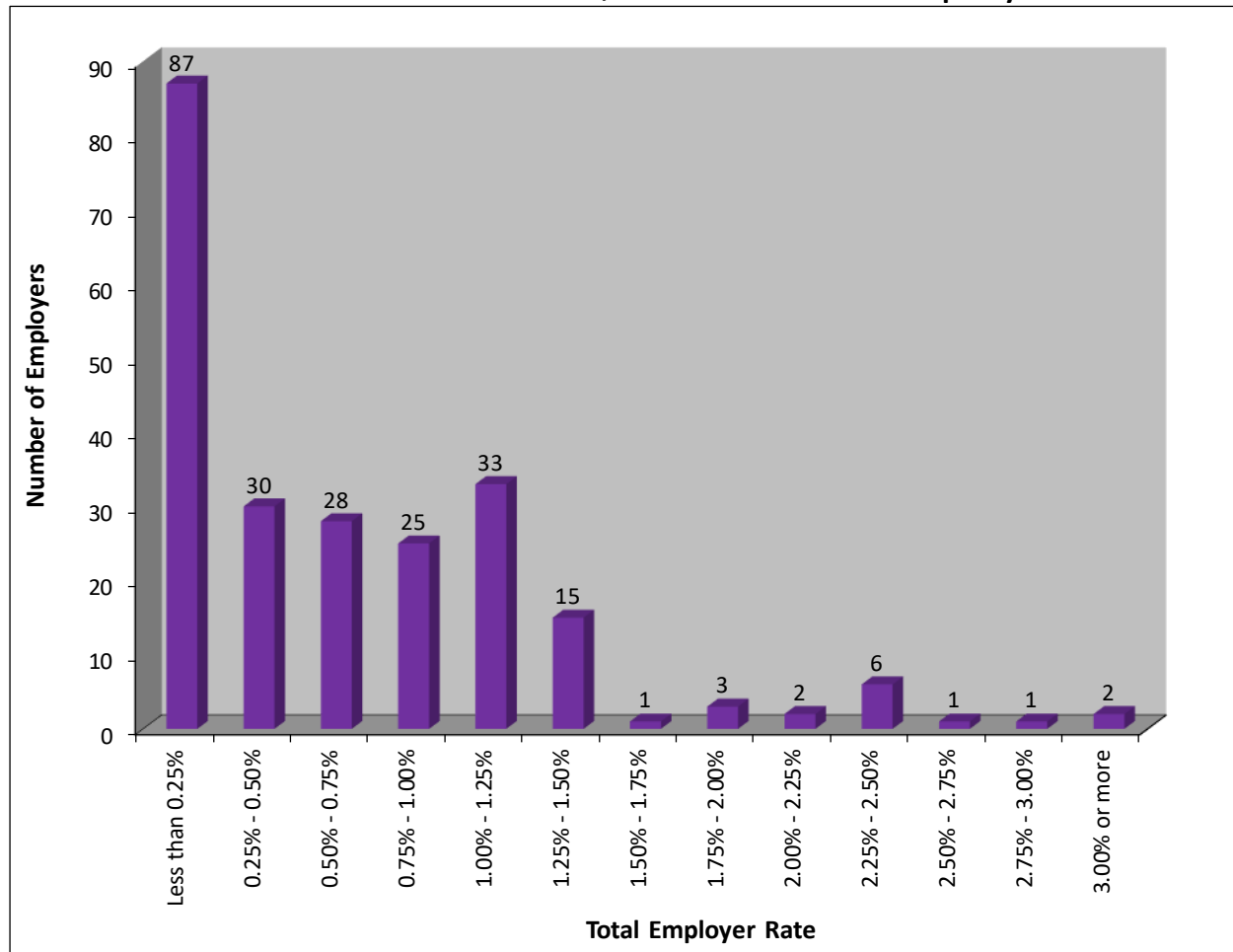


The chart above shows 234 employers; employers with 0 actives are excluded.



Actuarially Determined Employer Contribution (ADEC) Rates – OPEB HIC Political Subdivisions

ADEC Rate as of June 30, 2023 for 234 Employers



Contribution unchanged from prior rate setting valuation for 160 employers with surcharge



OPEB Results Commentary: HIC Political Subdivisions

- Employers with additional funding charge or surcharge

	2023	2021
Additional Funding Charge	3	13
Surcharge	160	62

Conclusion



1. Maintained Funded Status on Actuarial Asset Basis

- Despite lower than expected returns for fiscal years 2022-2023, recognition of prior asset gains resulted in small gains

2. Contributions

- Pension & OPEB rates are mostly consistent with last year
 - Statewide generally slightly lower rates than those currently being paid
 - Locals generally slightly higher rates than those currently being paid due to experience: salaries, COLA, supplement (where applicable)
- DC Hybrid estimates have been decoupled from the DB rates for State, Teachers JRS and Political Subdivisions
- Alternative amortization schedule slightly increases rates in the short term but moderates rates in the long term and saves money over time



THANK YOU

QUESTIONS

Disclaimers

- This presentation expresses the views of the authors and does not necessarily express the views of Gabriel, Roeder, Smith & Company.
- Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.



Disclaimers

- This presentation is intended to be used in conjunction with the forthcoming actuarial valuation reports. This presentation should not be relied on for any purpose other than the purposes described in the valuation reports.
- This presentation shall not be construed to provide tax advice, legal advice or investment advice.
- Jim Anderson and Becky Stouffer are independent of the plan sponsor, are Members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.





**June 30, 2023
Annual Actuarial
Valuation Results –
Line Of Duty Act Fund**

**Presented by: Becky Stouffer, ASA, MAAA;
Kurt Dosson, ASA, MAAA**



November 16, 2023

Agenda

- Big Picture – Line Of Duty Act Fund
- Valuation Highlights
- Appendix



BIG PICTURE



Line Of Duty Act Fund



Big Picture: Actuarial Valuation Results

June 30, 2023 LODA Actuarial Valuation develops

1. Pay-As-You-Go (PAYGO) rate per Full Time Equivalent (FTE) Employee
2. Actuarially Determined Employer Contribution (for accounting purposes only)

Historically, odd year valuations determine LODA PAYGO Rate for 2 years



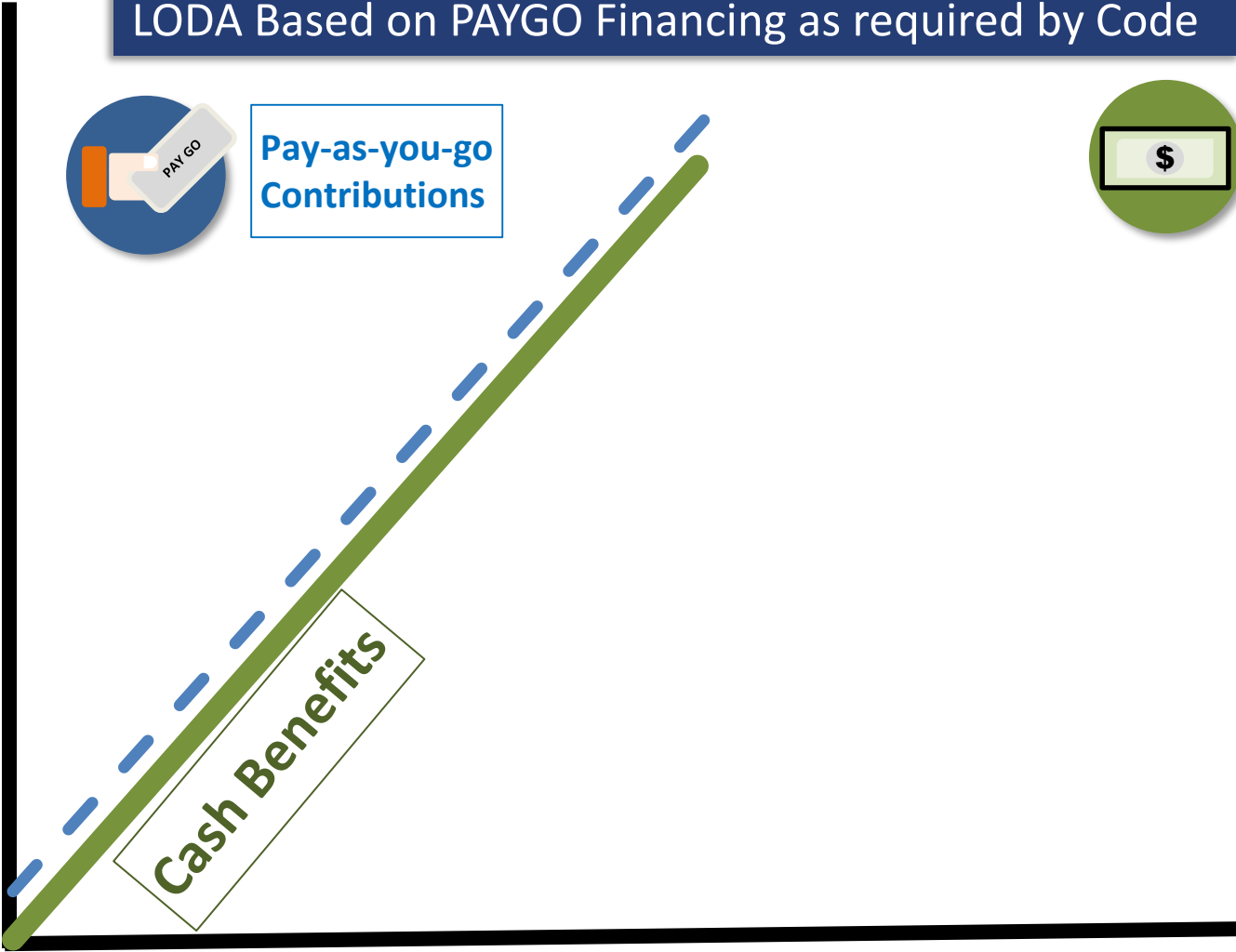
A Different Approach: LODA Based on PAYGO Financing as required by Code



Pay-as-you-go
Contributions



% of Active
Employee
Payroll



Years of Time

Big Picture: Line Of Duty Act Fund (LODA)

- Pay-As-You-Go Financing
 - Required for participating employer contributions by Section 9.1-400.1 of the *Code of Virginia*
 - Costs
 - Death benefit payments
 - Health care premium payments from Department of Human Resource Management (DHRM)
 - Health Insurance Credit (HIC) reimbursements (used to offset claims)
 - Administrative expenses



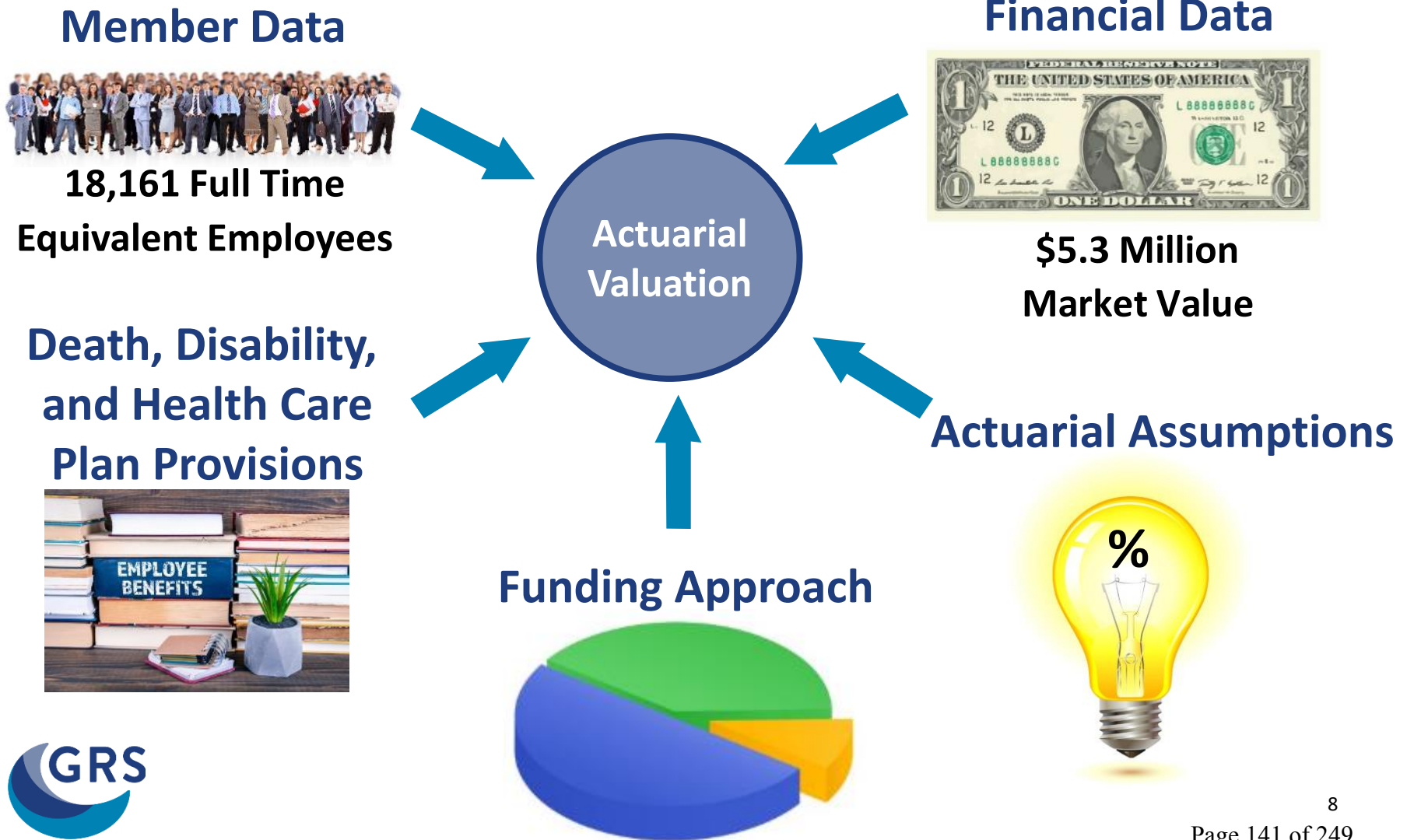
Big Picture: Line Of Duty Act Fund (LODA)


- Project benefit payments for future years
 - Plan covers the cost of health care premiums for current beneficiaries
 - Cover the cost of any new claims that are expected to occur during the year (new health care premiums & death claims)
- Set Employer contributions per Full Time Equivalent (FTE) so that
 - Assets sufficient to cover costs for a two year period with allowance for potential overage



Actuarial Valuation Process

Line of Duty Act Fund



Three spotlights are positioned at the top of the frame, casting beams of light onto a white podium on a stage. The background is a solid blue color.

JUNE 30, 2023

VALUATION RESULTS HIGHLIGHTS



Active Participants

Employer Group	Weight	FY 2022 Counts	FY 2023 Counts
State/VaLORS/SPORS	100%	8,701	9,025
National Guard*			
Full-Time	100%	1,044	869
Part-Time	10%	752	761
Total State & National Guard		10,497	10,655
Participating Political Subdivisions			
Full-Time	100%	6,875	7,018
Volunteers	25%	528	488
Total Pol. Sub. Employees		7,403	7,506
Aggregated Total		17,900	18,161

* National Guard counts unchanged from 2021 to 2022; Dept. of Military Affairs did not provide 2022 data

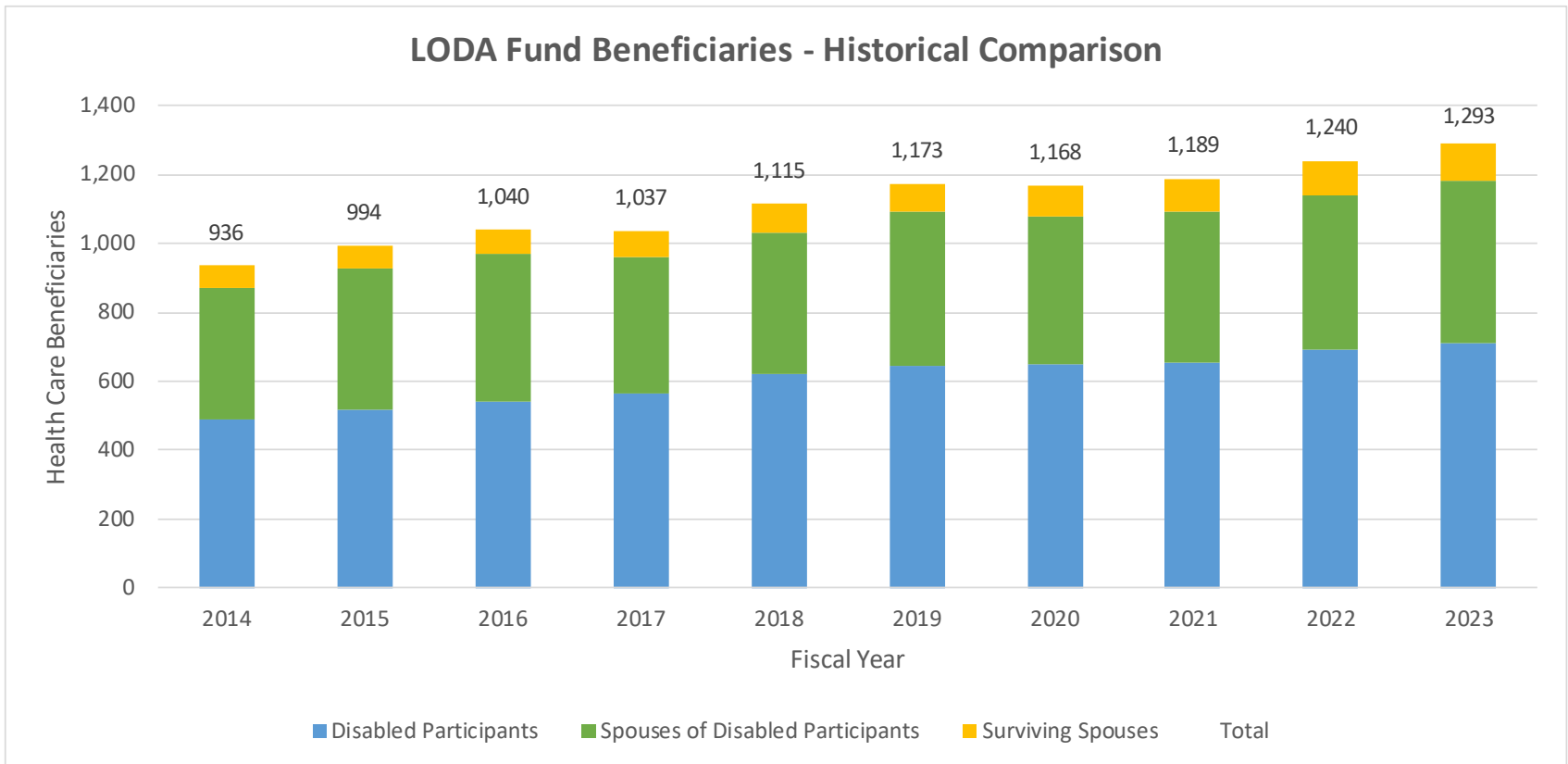


Health Care Beneficiaries

Beneficiary Type	2022	2023
Disabled Participants	691	713
Spouses of Currently Disabled Participants	449	471
Surviving Spouses	100	109
Total	1,240	1,293



Health Care Beneficiaries: 10-year History



Health Care Premiums

Health care costs based on premium amounts invoiced by DHRM for those receiving LODA benefits

- Premium amounts reflect recent claims experience of current LODA beneficiaries
- Assumed trend for future health care costs
 - Pre-65: 7.25% initially, decreasing over 9 years to a 4.25% ultimate rate
 - Post-65: 6.50% initially, decreasing over 9 years to a 4.25% ultimate rate



Initial Monthly Per Capita Costs – Provided by DHRM

FY 2024				
Membership Level	LODA Plan Current LODA Employment	LODA Plan Former LODA Employment	Medicare Primary	Medicare Part B Premium
Single	\$1,084	\$1,119	\$302	\$174.70
Two Person	\$1,850	\$1,882	N/A	N/A
Family (3 or more family members)	\$2,623	\$2,653	N/A	N/A

FY 2023				
Membership Level	LODA Plan Current LODA Employment	LODA Plan Former LODA Employment	Medicare Primary	Medicare Part B Premium
Single	\$1,084	\$1,119	\$296	\$164.90
Two Person	\$1,850	\$1,882	N/A	N/A
Family (3 or more family members)	\$2,623	\$2,653	N/A	N/A

- For pre-Medicare members, premiums increased 0.0% vs. 7.0% expected.
- For Medicare eligible members, premiums increased 2.0% vs. 5.25% expected.
- The projected 2024 Medicare Part B premium reflects an increase of 5.9% from 2023.



Initial Monthly Per Capita Costs

Valuation Date	Under Age 65	Over Age 65 Including Medicare Part B
June 30, 2018	\$1,186.01	\$506.50
June 30, 2019	\$1,137.63	\$406.60
June 30, 2020	\$1,222.51	\$431.50
June 30, 2021	\$1,319.01	\$463.10
June 30, 2022	\$1,413.08	\$460.90
June 30, 2023	\$1,418.67	\$476.70

Under Age 65: Includes the additional cost for coverage of dependent children



Market Value Assets: Year Ending June 30, 2023

Line of Duty Act:

Beginning balance	7,213,739
Additions:	
Member contributions	-
Employer contributions	13,270,553
Health Insurance Credit Offset	488,531
Administrative expenses - Non-Participating	172,750
Total additions	<u>13,931,834</u>
Deductions:	
Line of Duty Act reimbursements	
Health Care Benefits	15,507,744
Death Benefits	208,333
Administrative expenses - Participating	528,776
Administrative expenses - Non-Participating	172,750
Other expenses	-
Total deductions	<u>16,417,603</u>
Investment Income (Net)	583,486
Ending balance	<u><u>5,311,456</u></u>

LODA fund assets expected to earn 6.75% return



Actual vs. Expected Benefit Payments

FY 2023		
Type of Benefit	Expected	Actual
Health Insurance Benefits	\$15,293,427	\$15,507,744
Death Benefits	\$398,822	\$208,333
HIC Offsets	(\$480,360)	(\$488,531)
Total	\$15,211,889	\$15,227,546



Legislation – Workers Compensation

- **HB 1408; SB 906** - presumption of compensability for bladder and thyroid cancers
- **HB 1410; SB 1038** - Department of State Police; State Police Officers' Retirement System; presumption for arson, bomb, and hazardous materials investigators
- **HB 1775; SB 904** - post-traumatic stress disorder, anxiety disorder, or depressive disorder; law-enforcement officers and firefighters
 - All 3 bills effective prospectively beginning July 1, 2023



Putting It All Together: Development of LODA Employer Costs Per FTE

- Combine
 - Demographics of group as of June 30, 2023
 - Health care premium rates as of June 30, 2023
 - Health care trend and other actuarial assumptions
 - Health Insurance Credit (HIC) Program Reimbursements
 - A margin as a result of new legislation
 - 10% load to active participant benefit payments
 - Administrative Expenses
 - Net fiscal year 2023 amount is \$528,776, assumed to increase at 3% per annum for future years



Putting It All Together: Fiscal Years 2024-2026

	FY 2024	FY 2025	FY 2026
FTE Employees	18,161	18,161	18,161
Employer Contributions*	\$ 15,092,607	\$ 17,987,735	\$ 17,987,735
Benefit Costs	(15,840,344)	(17,979,648)	(19,952,796)
Administrative Expenses	(544,639)	(560,978)	(577,807)
Investment Income	314,906	273,884	187,889
Net Cash Flow	(977,470)	(279,007)	(2,354,979)
End of Year Position	4,333,986	4,054,979	1,700,000

*Results in \$995/FTE for FY 2025 and 2026 while achieving a projected 1-month benefit reserve at the end of the 2-year projection period

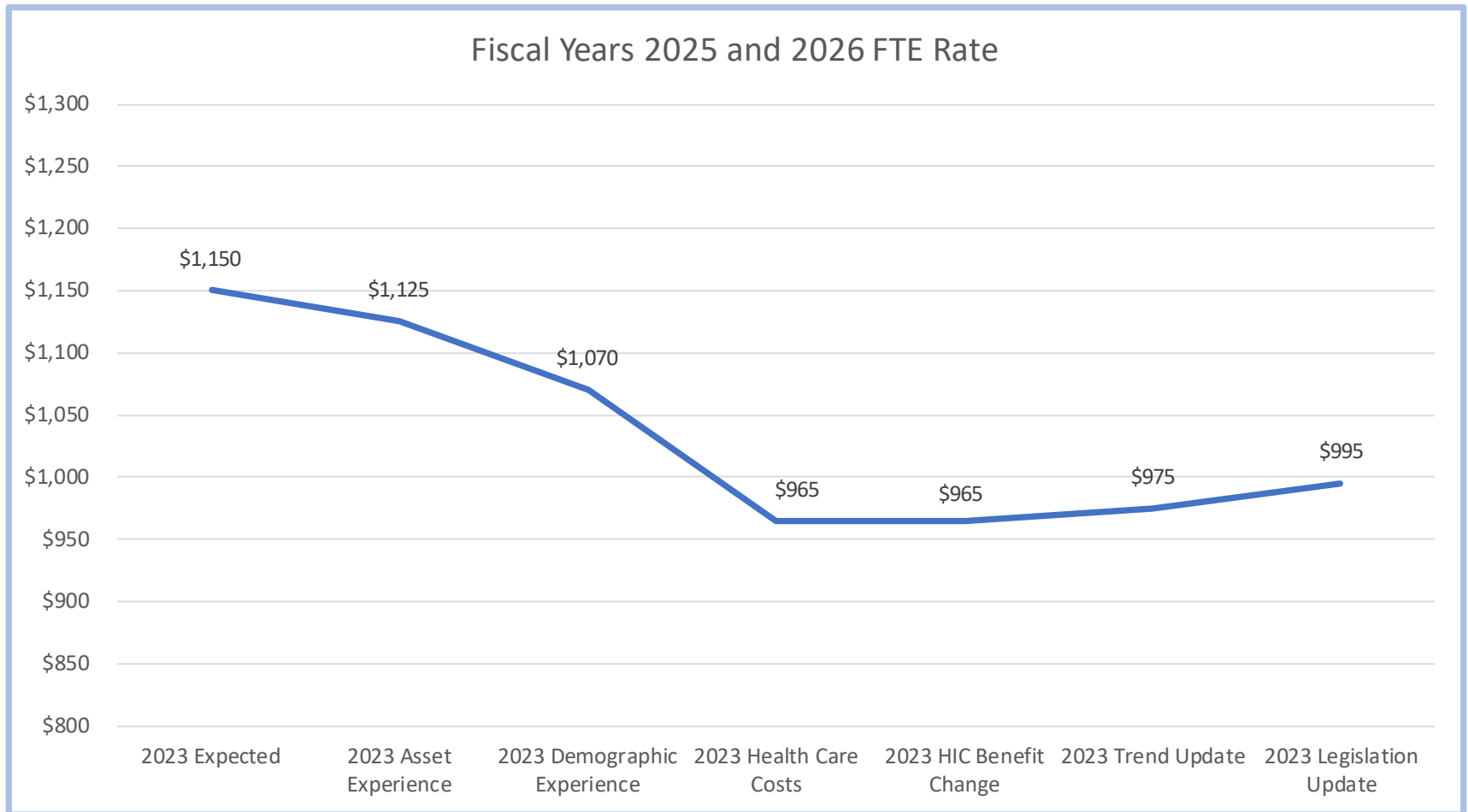


Putting It All Together: LODA Rate History

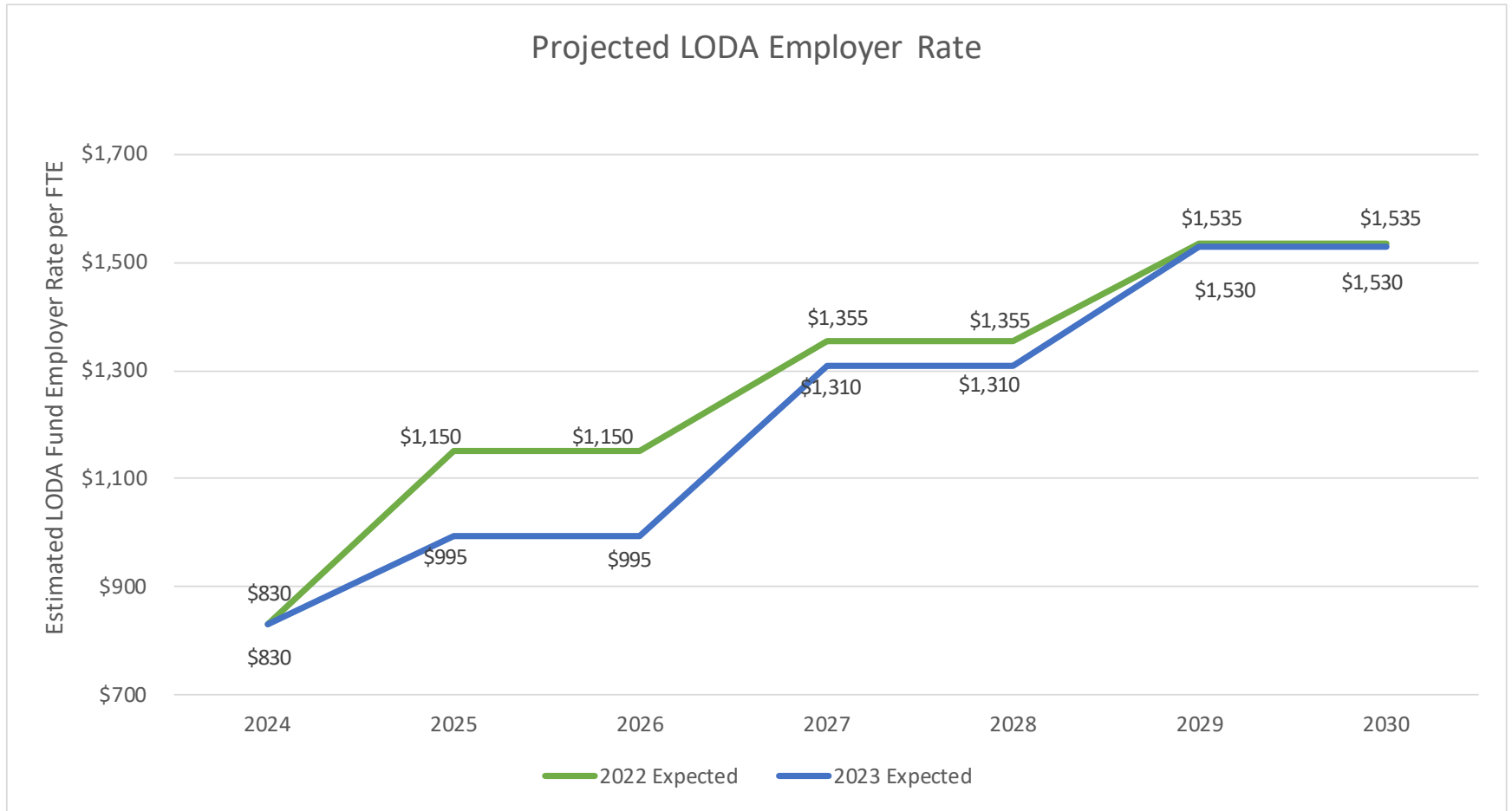
Valuation Date	Fiscal Year	Board Certified Rate	Adjusted Rate	Informational Rate
6/30/2023	2026	\$995.00	N/A	N/A
6/30/2023	2025	\$995.00	N/A	N/A
6/30/2022	2024	\$681.84	\$830.00	\$732.57
6/30/2021	2023	\$681.84	N/A	N/A
6/30/2020	2022	\$695.18	\$722.55	\$758.03
6/30/2019	2021	\$695.18	\$717.31	N/A



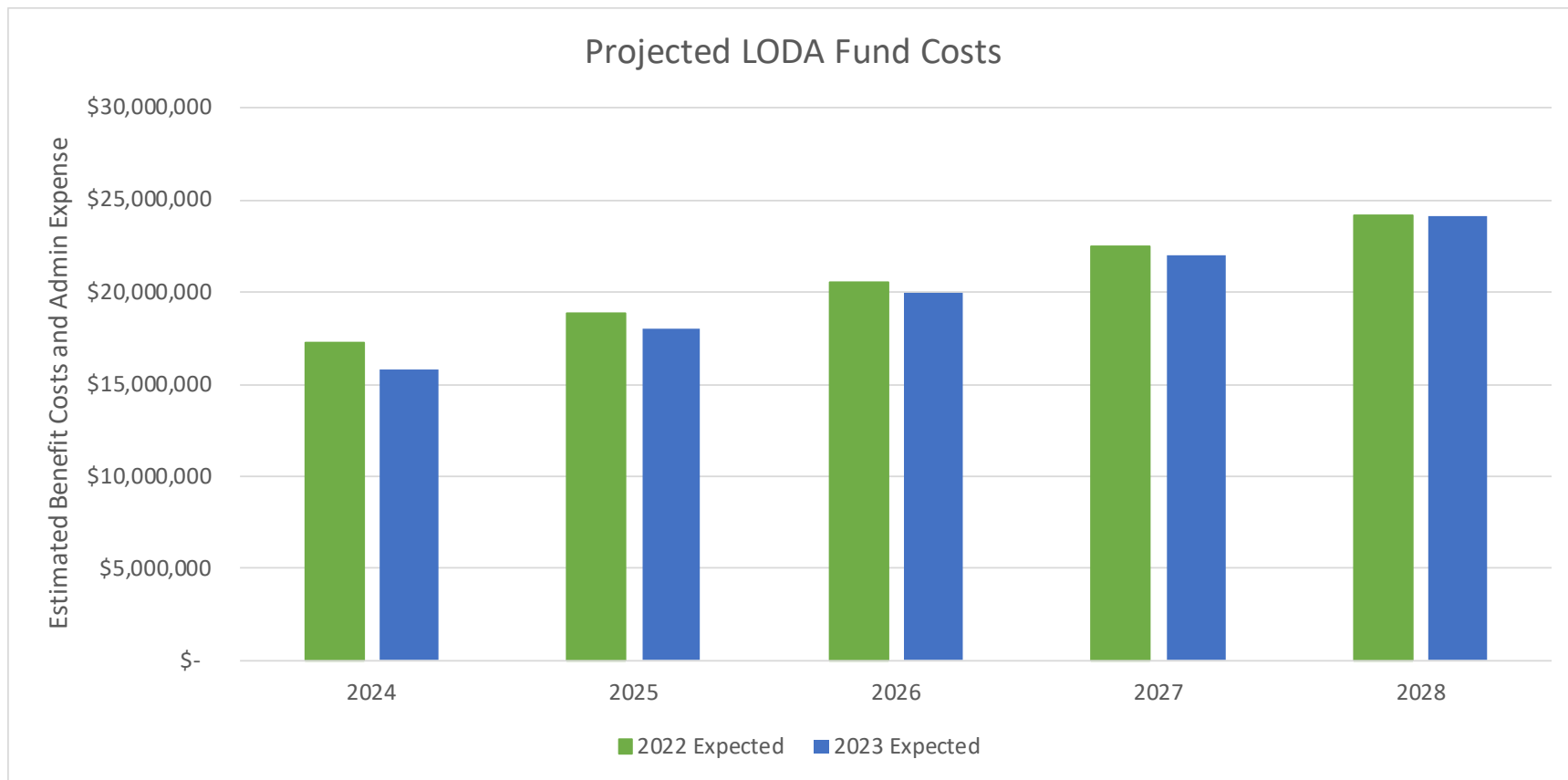
Putting it All Together: Reflecting Fiscal Year 2023 Experience



Putting It All Together



Putting It All Together: Projected Benefit Payments



LODA: Conclusions

- LODA Fund contributions are likely to increase, due to:
 - PAYGO financing approach
 - Health care inflation
 - Increasing number of beneficiaries
 - Static/Decreasing FTE employee count



THANK YOU

QUESTIONS

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MEMORANDUM

DATE: 11/16/2023

TO: VRS Board of Trustees
Andrew H. Junkin, Chief Investment Officer

FROM: VRS Governance Team

SUBJECT: Fiscal Year 2023 Corporate Governance Report

This memorandum will serve as the Corporate Governance Report for Fiscal Year 2023. In September 2018, The Board of Trustees adopted a revised Proxy Voting and Litigation Policy (see Exhibit 1). The policy's guiding principle for proxy voting and securities litigation activity is an emphasis on fiduciary responsibility, only taking actions that are in the best interest of the plan's participants and beneficiaries. The policy mandates that a proxy voting provider vote all proxies with allowable exceptions including comingled or mutual funds and certain separate accounts where proxy voting is part of the firm's investment strategy.

Proxy Voting

Institutional Shareholder Services, Inc. (ISS) continues to be the proxy research and implementation provider for VRS. ISS is currently owned by Deutsche Börse Group, a German financial marketplace exchange that offers listing and trading services. In November 2020, Deutsche Börse acquired a majority stake in ISS from private equity firm Genstar Capital.

During FY2023, staff reviewed and evaluated the services provided by ISS and determined that these services continue to meet the needs of VRS. During 2023, VRS transitioned from the ISS Standard Benchmark Voting Policy to the ISS Global Board-Aligned Voting Policy in both the Defined Benefit accounts that ISS votes for VRS and for Defined Contribution accounts at BlackRock (through voting choice) where available. The ISS Global Board-Aligned Proxy Voting Guidelines for the United States is included in Exhibit 2.

As of June 30, 2023, six out of thirteen of Public Equity's external traditional mandates used ISS for proxy voting. Including internal mandates, ISS handled the proxies for 61% of Public Equity's market value. Managers who do not use the ISS proxy voting policy selected by VRS are noted in Exhibit 3. These managers are either in comingled funds or managers that consider this responsibility a part of their investment management process.

Securities Litigation

Under independent authority granted to VRS in the Appropriation Act to enter into agreements to seek legal advice related to its investments outside the OAG appointment process, VRS appointed the law firms of Bernstein Litowitz Berger & Grossman LLP (Bernstein Litowitz), Kessler Topaz Meltzer & Check LLP (Kessler Topaz), and Labaton Sucharow LLP (Labaton). Each of the agreements have a term of two years, with automatic renewals for up to four additional one-year terms unless terminated by written notice by either VRS or the law firm. Three firms have been renewed for a final one-year term ending November 30, 2023.

The Office of the Attorney General (OAG) recently appointed two firms to provide domestic securities litigation services to VRS for a period beginning December 1, 2022 and running through November 30, 2024. Kessler Topaz and Labaton are included in the list of firms appointed by OAG.

The firms work closely with VRS' custodians – Bank of New York Mellon, Goldman Sachs, and State Street Bank & Trust – to monitor the VRS investment portfolio to:

- Inform VRS about newly filed securities class actions and whether and to what extent VRS has sustained a loss with respect to the affected securities;
- Inform VRS about settled or adjudicated securities class actions; and
- Provide legal advice and representation about prosecution of securities claims.

VRS has not been the lead plaintiff in any U.S. securities litigation matters other than Escala in 2006 and MF Global in 2012, but VRS continues to participate monetarily in the settlement of U.S. class action litigation by filing proofs of claim, monitoring payments, etc.

Bank of New York Mellon reported that VRS received class action proceeds totaling \$1,069,275 during FY2023 on behalf of the defined benefit plan. These proceeds were related to separate accounts where Bank of New York Mellon serves as the custodian. Investments in traditional equity accounts with other custodial or prime broker relationships received class action proceeds totaling \$43,401 on behalf of the defined benefit program. BlackRock reported as a unit holder of various BlackRock collective trust funds, the VRS defined contribution accounts pro-rata share of class action proceeds totaled \$72,869 during FY2023.

Since the Supreme Court case of *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010), investors such as VRS have not had the protection of the U.S. securities laws if the securities were purchased on a foreign exchange. Given the realities of global securities litigation after Morrison, VRS continues to adapt to the new and varying challenges of monitoring its portfolio to ensure that non-U.S. opportunities to recover assets based on securities fraud are not lost. For example, with the assistance of liaison counsel, VRS takes a conservative approach by participating in cases in select foreign jurisdictions where such participation is similar to the claims filing process in domestic actions. Also, VRS only participates in foreign securities litigation in those jurisdictions that either do not involve a risk that VRS would be liable for expenses if the litigation is

unsuccessful (i.e., no “loser pays” rule) or where the litigation funder fully indemnifies VRS for any potential “loser pays” costs. In such cases, VRS assumes a passive role in its participation in the case after an initial filing of transactional data supporting the VRS claim.

VRS joined five non-U.S. cases and received approximately \$650,000 in proceeds from non-U.S. cases during FY2023, and we are participating passively in 15 other non-U.S. cases for which the recovery amounts have not yet been determined.

Investor Organizations

VRS continues to be a non-voting member of the Council of Institutional Investors (CII) and staff continues to view the organization as a cost-effective resource for research on corporate governance issues. CII members consist of representatives from public and private pension plans, foundations, endowments, mutual funds, insurance companies, and international institutional investors with member assets over three trillion dollars. The organization is well respected among regulatory bodies and government leaders. The diversity of its membership affords thought provoking debate on corporate governance issues. Because of the depth of its membership, quality of data, and timely dissemination of information, staff still believes that participation in other corporate governance organizations is not necessary at this time.

**BOARD OF TRUSTEES’
PROXY VOTING AND LITIGATION POLICY**

GUIDING PRINCIPLE

The guiding principle for the Virginia Retirement System’s (“VRS”) proxy voting and litigation activity is fiduciary responsibility, only taking actions that are in the best interest of the plan's participants and beneficiaries.

I. POLICY STATEMENT

A. PROXY VOTING

It is the policy of VRS to review all proxy issues carefully and to vote them in the best interest of the participants and beneficiaries of the fund. The Board should review a report on VRS proxy voting from time to time, which includes an evaluation of any outside Proxy Voting Service Provider.

B. VRS AS LONG-TERM INVESTOR

VRS should act like an owner of companies in which it invests by encouraging long-term value creation. However, the costs of becoming an active investor must be considered. VRS should always seek cost-effective means for acting as an owner. VRS can share the costs of any shareholder activism by joining organizations made up of other similar institutional investors who are also concerned about creating and improving economic value for shareholders.

C. LITIGATION

Other than cases brought under the Virginia Administrative Process Act,¹ the most common type of litigation that affects VRS directly is securities litigation class actions for investments in which VRS has incurred a loss. From time to time other types of litigation will arise, including cases where VRS is a defendant and cases brought under the Virginia Fraud Against Taxpayers Act (§ 8.01-216.1, et seq., of the *Code of Virginia*). While VRS acknowledges that there are situations that may give rise to a fiduciary duty to pursue legal action on its own to recover on a claim, VRS also places significant weight on the fact that

¹ Article V, section A (2) of the Board Governance Policy delegates authority to the Director to issue final case decisions regarding applications for disability retirement and other matters that have been appealed pursuant to the Administrative Process Act.

most (if not all) of these domestic claims will be prosecuted by class action attorneys on behalf of a multitude of institutional investors, whether or not VRS undertakes an active role. Consequently, the default position for VRS in connection with domestic securities litigation is to simply file claims in connection with the settlement of securities litigation class action matters based on VRS holdings in the affected securities.

VRS will consider an active role in securities litigation typically in those cases where (i) VRS has experienced a significant loss related to illegal conduct, fraud, or willful wrongdoing, (ii) active involvement could provide added value to VRS (e.g., in the form of a higher recovery than if VRS was not involved), either in the specific case or on a longer-term, portfolio-wide basis, or (iii) in the case of foreign litigation where active involvement is the only avenue for recovery. For the purposes of this policy and as a general guideline, a loss is significant when it exceeds three basis points of the total fund value (“Loss Threshold”). The decision to take an active role in any securities litigation requires a balancing of the costs and benefits involved.

In considering whether to take an active role in securities litigation, VRS should also assess the long-term consequences of litigation as well as the impact of litigation on staff productivity. VRS will appoint outside counsel with expertise in securities litigation to assist in determining whether fraud or willful wrongdoing has occurred in connection with the acquisition or ownership of its investments. Outside counsel will identify significant cases that should be brought to the Board’s attention and, if the Board decides to take an active role in the case, to help evaluate an appropriate litigation strategy.²

The landscape of United States securities laws drastically changed with the Supreme Court decision in *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247 (2010). Under *Morrison*, investors no longer have the protection of the U.S. securities laws if the securities were purchased on a foreign exchange. After the *Morrison* decision, it is no longer possible to pursue a recovery in securities litigation in a foreign jurisdiction as a “free rider” as part of a class action, and an affirmative decision to participate in the class is typically required. Generally, in cases pending in foreign jurisdictions, VRS will only consider recovery methods that do not involve a risk that VRS would be liable for any expenses if the litigation were unsuccessful. For example, in most cases, VRS would not consider pursuing recovery in a foreign jurisdiction where the losing party in litigation pays the prevailing party’s fees and costs. However, VRS might consider such foreign litigation if there was insurance in place to cover the potential “loser pays” liability.

On relatively rare occasions, other types of litigation affect VRS that are not related to securities litigation for investments in which VRS has incurred a loss. For example, VRS may be a defendant in litigation, and the outcome of the litigation could affect the assets in the trust fund. While these types of cases are relatively rare and arise under unique facts

² See “Selection of Counsel” in section II (C) (2).

and circumstances, the same guiding principle applies to the strategic decisions that may be involved in their resolution.

II. GUIDELINES

A. PROXY VOTING

VRS should contract out the development of proxy voting positions to a Proxy Voting Service Provider. The decision by VRS staff to hire an outside Proxy Voting Service Provider should be based on a thorough review of the provider's proxy voting policies. These proxy voting policies must be based on sound economic analysis and research of proxy issues and driven solely by the objective of enhancing and protecting shareholder returns. VRS staff should review and evaluate the Proxy Voting Service Provider used by VRS from time to time.

Generally, VRS policy mandates that the Proxy Voting Service Provider vote all proxies. Exceptions to this policy include commingled or mutual funds where proxy policies are part of the fund documentation and certain separate accounts where proxy voting is part of the firm's investment strategy. VRS staff should review the proxy voting policies of such managers for overall reasonableness and should use the results of this review as a manager evaluation criterion.

VRS staff should provide to the Board from time to time a review and evaluation of the VRS Proxy Voting Service Provider.

B. VRS AS LONG-TERM INVESTOR

It is expected that VRS will align itself with certain oversight organizations with an eye toward creating and improving economic value for shareholders. This will provide VRS with access to multiple, cost-effective tools for promoting good corporate governance at portfolio companies and for monitoring regulatory organizations such as the Securities and Exchange Commission. Moreover, membership will provide information and analysis about corporate governance issues, best practices and solutions going forward.

C. LITIGATION

1. Filing Proofs of Claim

The VRS custodial bank is responsible for filing all proofs of claim, including the necessary supporting documents and information, in every securities class action pending in the U.S. in which VRS has an interest (the "Claims Filing"). To memorialize the custodian's Claims Filing responsibilities, the Chief Investment Officer ("CIO") shall prepare and revise, as appropriate, a statement of work to be included with the custodial

agreement setting out formal Claims Filing procedures for the custodial bank to follow. These procedures shall include:

- i. Identifying and reviewing all class action recoveries (whether by settlement or trial)
- ii. Providing timely notice of each settlement recovery, with sufficient time to allow VRS to opt out
- iii. Filing complete and accurate proof of claim forms in a timely fashion on behalf of VRS
- iv. Providing quarterly reports regarding these efforts
- v. Providing quarterly reports identifying all securities litigation proceeds recovered by VRS directly or on its behalf

Alternatively, the VRS Board may elect to use a third-party vendor to be responsible for the Claims Filing activities.

2. Selection of Counsel

VRS has undertaken an open procurement process to select a number of outside counsel firms to provide legal advice related to investments, and has entered into contractual agreements with each of the firms. Pursuant to this policy, VRS staff is authorized to select which of these firms should assist with a specific action depending on the facts and circumstances of each case. Criteria may include the firm's expertise in a particular area of law, the firm's analysis of a specific case, or the firm's recommended strategy.

3. Class Actions – Securities Listed on a Domestic Exchange

The Board desires to create an evaluation policy that provides guidance regarding when and how VRS will become actively involved in domestic securities litigation, including seeking lead plaintiff status. The VRS Board adopts this policy to place itself, the CIO and the Director, with the advice of counsel, in the best position to identify, protect, and serve the best interests of VRS.

The following is an outline of the procedures to assist in decisions regarding domestic securities litigation issues.

i. Monitoring and Evaluation Procedures

VRS may retain a vendor specializing in identifying and analyzing potential and existing securities cases to perform this function, and to report its findings on a timely basis. VRS also retains law firms as outside counsel to monitor and advise VRS of recently-filed

class actions that appear to have merit and for which VRS has sustained a loss that (i) exceeds its Loss Threshold or (ii) is substantial and involves unique factors justifying the involvement of VRS regardless of the Loss Threshold.

When a case meets the Loss Threshold for active management, VRS staff, in consultation with the office of the Attorney General (“OAG”) and outside counsel, shall evaluate whether the class action is meritorious and deserves closer examination. The evaluation shall include a review of available information regarding the lawsuit before considering whether to seek lead plaintiff status or embark on some other active claim management strategy (e.g., opting out of the class and pursuing a separate claim).

ii. Decision-making Process

Absent a loss exceeding the Loss Threshold or unusual and compelling circumstances, the VRS Board will not consider pursuing any active claim management strategy for any given case without the concurrence of the Office of the Attorney General (“OAG”). VRS staff should work with outside counsel to evaluate securities litigation options available to VRS on a case-by-case basis. VRS may also engage other vendors to monitor and identify potential securities litigation cases. These outside entities should forward material pertaining to such cases to VRS for further review and evaluation under the guidance contained in this policy.

The VRS Board will only consider taking an active role in litigation in accordance with the “Monitoring and Evaluation Procedures” described above.

If these initial criteria are met, VRS staff should coordinate its analysis with outside counsel to ensure that the situation meets the VRS criteria. If so, VRS staff and outside counsel should forward relevant information and a recommended course of legal action to VRS investment staff for review and evaluation consistent with the guidance contained in this policy. Following this review and evaluation, VRS staff should only forward a recommendation to pursue legal action to the VRS Board for those cases that are considered appropriate under this policy.

In most cases, decisions regarding a given case must be submitted, in advance, to the VRS Board at a regular meeting or, where immediate action is necessary, at a special meeting. However, where it is determined that immediate action is required in order to preserve the rights or interests of VRS by such involvement, and the matter cannot be timely presented at a regular or special meeting, or where a quorum cannot be reached at such meeting, the Chair of the VRS Board (or if the Chair is not available, the Vice Chair or the Chair’s designee), after consultation with the Director and CIO, and with the advice of counsel, is authorized to make the decision. The VRS Board shall be notified as soon as practicable upon the exercise of such authority, and the VRS Board shall receive a summary of the action at its next regular meeting. This procedure may also be used for other

time-sensitive decisions related to securities litigation where it is deemed in the best interests of the plan to do so, to the extent such decisions are in conformance with this policy.

If the VRS Board (or its designees under this policy) approves a recommendation to pursue an active role in a given case, VRS will work with outside counsel to pursue an agreed-upon litigation or active claim management strategy.

The VRS Board should receive an annual report on the total asset recoveries from securities litigation received during the year, including a status report on any litigation in which VRS is the lead plaintiff.

iii. Settlement or Other Disposition/Resolution

In most cases, decisions to settle a case or to pursue other disposition or resolution in a given case will be submitted, in advance, to the VRS Board at a regular meeting or, where immediate action is necessary, at a special meeting. However, where it is determined that immediate action is required in order to preserve the rights or interests of VRS by such involvement, and the matter cannot be timely presented at a regular or special meeting, or where a quorum cannot be reached at such meeting, the Chair of the VRS Board (or if the Chair is not available, the Vice Chair or the Chair's designee), after consultation with the Director and CIO, and with the advice of counsel, is authorized to make the decision. The VRS Board shall be notified as soon as practicable upon the exercise of such authority, and the VRS Board shall receive a summary of the action at its next regular meeting.

3. Class Actions – Securities Listed on a Foreign Exchange

Given the new realities of global securities litigation after *Morrison*, VRS must adapt to the new challenges of monitoring its portfolio to ensure that opportunities to recover assets based on securities fraud are not lost. This includes the analysis of whether to participate in an action in a foreign jurisdiction or to bring a state law action.

i. Participation in a Foreign Action

Unlike the class action process in the United States where investors can remain absent, receive notice of a settlement, and then decide to file a proof of claim or opt-out of the class case, foreign actions generally require investors to join as named plaintiffs or “opt-in” at the commencement of the case. This “opt-in” process will require affirmative decisions by VRS early in the process to join the case (and sometimes prior to the case being filed) to recover anything on its losses.

There are select foreign jurisdictions such as Australia, Japan and possibly other emerging jurisdictions where participation is very similar to the claims filing process in

domestic actions. For example, participation does not involve a risk that VRS would be liable for expenses if the litigation is unsuccessful (i.e., no “loser pays” rule or the risk is assumed by a third party), and VRS could assume a passive role in its participation in the case after an initial filing of transactional data supporting the VRS claim. Under those circumstances, the Loss Threshold does not come into play as the only way for VRS to participate in a foreign case to maximize its potential recovery on actionable losses is to take affirmative action.

In the case of jurisdictions (such as Australia and Japan) where participation in a foreign action does not involve a risk that VRS would be liable for expenses if the litigation is unsuccessful, VRS staff should obtain assurances and recommendations from its outside counsel and the OAG in the review and evaluation of foreign actions in those jurisdictions. In cases where there is no risk that VRS will be liable for expenses in the event of a loss, the Chair of the VRS Board (or if the Chair is not available, the Vice Chair or the Chair’s designee), after consultation with the Director and CIO, and with the advice of counsel, is authorized to make the decision to participate in a foreign action. The VRS Board shall be notified as soon as practicable upon the exercise of such authority, and the VRS Board shall receive a summary of the action at its next regular meeting. Consistent with the *Code of Virginia*, VRS staff will coordinate its efforts with OAG or the Governor’s Office as appropriate under the circumstances.

ii. Participation in State Law Action

Another option that is sometimes available with a foreign loss is to bring an action under state law in the United States. Because there are numerous issues that must be considered beforehand, the VRS Board should consider an action under state law only under very rare circumstances and after extensive consultation with staff, OAG, and outside counsel. In most cases, decisions regarding bringing a state law action related to a given foreign case will be submitted, in advance, to the VRS Board at a regular meeting or, where immediate action is necessary, at a special meeting. However, where it is determined that immediate action is required in order to preserve the rights or interests of VRS by such involvement, and the matter cannot be timely presented at a regular or special meeting, or where a quorum cannot be reached at such meeting, the Chair of the VRS Board (or if the Chair is not available, the Vice Chair or the Chair’s designee), after consultation with the Director and CIO, and with the advice of counsel, is authorized to make the decision. The VRS Board shall be notified as soon as practicable upon the exercise of such authority, and the VRS Board shall receive a summary of the action at its next regular meeting.

iii. Settlement or Other Disposition/Resolution

In most cases, decisions to settle a case or to pursue other disposition or resolution in a given case will be submitted, in advance, to the VRS Board at a regular meeting or, where immediate action is necessary, at a special meeting. However, where it is determined

that immediate action is required in order to preserve the rights or interests of VRS by such settlement or other disposition, and the matter cannot be timely presented at a regular or special meeting, or where a quorum cannot be reached at such meeting, the Chair of the VRS Board (or if the Chair is not available, the Vice Chair or the Chair's designee), after consultation with the Director and CIO, and with the advice of counsel, is authorized to make the decision. The VRS Board shall be notified as soon as practicable upon the exercise of such authority, and the VRS Board shall receive a summary of the action at its next regular meeting.

iv. Monitoring Procedures

VRS recognizes the importance of developing a protocol to stay informed and make prudent decisions relating to its involvement in foreign actions. VRS will use outside counsel and other entities to assist in monitoring foreign actions. This will ensure that VRS has the greatest possible visibility into applicable deadlines so VRS can make a timely and informed decision on whether to participate in a given foreign action and in what manner such participation will occur.

The VRS Board should receive an annual report on the total asset recoveries from foreign securities litigation received during the year.

4. Other Litigation

In all other types of litigation, with the exception of cases under the Administrative Process Act, such as those cases where VRS is a defendant and settlement negotiations may be ongoing, VRS staff will submit recommendations for actions (e.g., approval of a settlement), in advance, to the VRS Board at a regular meeting or, where immediate action is necessary, at a special meeting. However, where it is determined that immediate action is required in order to preserve the rights or interests of VRS, and the matter cannot be timely presented at a regular or special meeting, or where a quorum cannot be reached at such meeting, the Chair of the VRS Board (or if the Chair is not available, the Vice Chair or the Chair's designee), after consultation with the Director and CIO, and with the advice of counsel, is authorized to make the decision. The VRS Board shall be notified as soon as practicable upon the exercise of such authority, and the VRS Board shall receive a summary of the action at its next regular meeting. Consistent with the *Code of Virginia*, VRS staff will coordinate its efforts with OAG or the Governor's Office as appropriate under the circumstances.

5. Interpretation

The Board of Trustees intends that this Policy should be construed broadly to provide the flexibility necessary for VRS to take immediate action where it is required to protect the best interests of the Fund's members, retirees and beneficiaries. In all cases, any

such action must be reported to the Board at the earliest practicable opportunity and summarized at the next regular meeting of the Board.



UNITED STATES

GLOBAL BOARD-ALIGNED PROXY VOTING GUIDELINES 2023 Policy Recommendations

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Introduction

ISS' Global Board-Aligned Policy is designed to enable subscribing investors to vote in a manner that upholds foundational corporate governance principles as a means of protecting and maximizing their investments, whilst generally aligning with issuers' board recommendations for voting on environmental and social matters.

On matters of corporate governance, executive compensation, and corporate structure, the Global Board-Aligned Policy guidelines are focused on widely accepted good standards of corporate governance and shareholder rights protection, and on the creation and preservation of economic value. On environmental or social matters, the Global Board-Aligned Policy will generally be in line with the board's recommendations, with support limited to circumstances where it is considered that greater disclosure will directly enhance or protect shareholder value and is reflective of a clearly established reporting standard in the market. Details are as further described in these guidelines.

1. Board of Directors

Voting on Director Nominees in Uncontested Elections

Four fundamental principles apply when determining votes on director nominees:

Independence: Boards should be sufficiently independent from management (and significant shareholders) to ensure that they are able and motivated to effectively supervise management's performance for the benefit of all shareholders, including in setting and monitoring the execution of corporate strategy, with appropriate use of shareholder capital, and in setting and monitoring executive compensation programs that support that strategy. The chair of the board should ideally be an independent director, and all boards should have an independent leadership position or a similar role in order to help provide appropriate counterbalance to executive management, as well as having sufficiently independent committees that focus on key governance concerns such as audit, compensation, and nomination of directors.

Composition: Companies should ensure that directors add value to the board through their specific skills and expertise and by having sufficient time and commitment to serve effectively. Boards should be of a size appropriate to accommodate diversity, expertise, and independence, while ensuring active and collaborative participation by all members. Boards should be sufficiently diverse to ensure consideration of a wide range of perspectives.

Responsiveness: Directors should respond to investor input, such as that expressed through significant opposition to management proposals, significant support for shareholder proposals (whether binding or non-binding), and tender offers where a majority of shares are tendered.

Accountability: Boards should be sufficiently accountable to shareholders, including through transparency of the company's governance practices and regular board elections, by the provision of sufficient information for shareholders to be able to assess directors and board composition, and through the ability of shareholders to remove directors.

General Recommendation: Generally vote for director nominees, except under the following circumstances (with new nominees¹ considered on case-by-case basis):

Independence

Vote against² or withhold from non-independent directors (Executive Directors and Non-Independent Non-Executive Directors per [ISS' Classification of Directors](#)) when:

- Independent directors comprise 50 percent or less of the board;
- The non-independent director serves on the audit, compensation, or nominating committee;
- The company lacks an audit, compensation, or nominating committee so that the full board functions as that committee; or
- The company lacks a formal nominating committee, even if the board attests that the independent directors fulfill the functions of such a committee.

¹ A "new nominee" is a director who is being presented for election by shareholders for the first time. Recommendations on new nominees who have served for less than one year are made on a case-by-case basis depending on the timing of their appointment and the problematic governance issue in question.

² In general, companies with a plurality vote standard use "Withhold" as the contrary vote option in director elections; companies with a majority vote standard use "Against". However, it will vary by company and the proxy must be checked to determine the valid contrary vote option for the particular company.

ISS Classification of Directors – U.S.

1. **Executive Director**
 - 1.1. Current officer¹ of the company or one of its affiliates².
2. **Non-Independent Non-Executive Director**
 - Board Identification
 - 2.1. Director identified as not independent by the board.
 - Controlling/Significant Shareholder
 - 2.2. Beneficial owner of more than 50 percent of the company's voting power (this may be aggregated if voting power is distributed among more than one member of a group).
 - Current Employment at Company or Related Company
 - 2.3. Non-officer employee of the firm (including employee representatives).
 - 2.4. Officer¹, former officer, or general or limited partner of a joint venture or partnership with the company.
 - Former Employment
 - 2.5. Former CEO of the company.^{3, 4}
 - 2.6. Former non-CEO officer¹ of the company or an affiliate² within the past five years.
 - 2.7. Former officer¹ of an acquired company within the past five years.⁴
 - 2.8. Officer¹ of a former parent or predecessor firm at the time the company was sold or split off within the past five years.
 - 2.9. Former interim officer if the service was longer than 18 months. If the service was between 12 and 18 months an assessment of the interim officer's employment agreement will be made.⁵
 - Family Members
 - 2.10. Immediate family member⁶ of a current or former officer¹ of the company or its affiliates² within the last five years.
 - 2.11. Immediate family member⁶ of a current employee of company or its affiliates² where additional factors raise concern (which may include, but are not limited to, the following: a director related to numerous employees; the company or its affiliates employ relatives of numerous board members; or a non-Section 16 officer in a key strategic role).
 - Professional, Transactional, and Charitable Relationships
 - 2.12. Director who (or whose immediate family member⁶) currently provides professional services⁷ in excess of \$10,000 per year to: the company, an affiliate², or an individual officer of the company or an affiliate; or who is (or whose immediate family member⁶ is) a partner, employee, or controlling shareholder of an organization which provides the services.
 - 2.13. Director who (or whose immediate family member⁶) currently has any material transactional relationship⁸ with the company or its affiliates²; or who is (or whose immediate family member⁶ is) a partner in, or a controlling shareholder or an executive officer of, an organization which has the material transactional relationship⁸ (excluding investments in the company through a private placement).
 - 2.14. Director who (or whose immediate family member⁶) is a trustee, director, or employee of a charitable or non-profit organization that receives material grants or endowments⁸ from the company or its affiliates².
 - Other Relationships
 - 2.15. Party to a voting agreement⁹ to vote in line with management on proposals being brought to shareholder vote.
 - 2.16. Has (or an immediate family member⁶ has) an interlocking relationship as defined by the SEC involving members of the board of directors or its Compensation Committee.¹⁰
 - 2.17. Founder¹¹ of the company but not currently an employee.
 - 2.18. Director with pay comparable to Named Executive Officers.
 - 2.19. Any material¹² relationship with the company.
3. **Independent Director**
 - 3.1. No material¹² connection to the company other than a board seat.

Footnotes:

1. The definition of officer will generally follow that of a “Section 16 officer” (officers subject to Section 16 of the Securities and Exchange Act of 1934) and includes the chief executive, operating, financial, legal, technology, and accounting officers of a company (including the president, treasurer, secretary, controller, or any vice president in charge of a principal business unit, division, or policy function). Current interim officers are included in this category. For private companies, the equivalent positions are applicable. A non-employee director serving as an officer due to statutory requirements (e.g. corporate secretary) will generally be classified as a Non-Independent Non-Executive Director under “Any material relationship with the company.” However, if the company provides explicit disclosure that the director is not receiving additional compensation exceeding \$10,000 per year for serving in that capacity, then the director will be classified as an Independent Director.
2. “Affiliate” includes a subsidiary, sibling company, or parent company. ISS uses 50 percent control ownership by the parent company as the standard for applying its affiliate designation. The manager/advisor of an externally managed issuer (EMI) is considered an affiliate.
3. Includes any former CEO of the company prior to the company’s initial public offering (IPO).
4. When there is a former CEO of a special purpose acquisition company (SPAC) serving on the board of an acquired company, ISS will generally classify such directors as independent unless determined otherwise taking into account the following factors: the applicable listing standards determination of such director’s independence; any operating ties to the firm; and the existence of any other conflicting relationships or related party transactions.
5. ISS will look at the terms of the interim officer’s employment contract to determine if it contains severance pay, long-term health and pension benefits, or other such standard provisions typically contained in contracts of permanent, non-temporary CEOs. ISS will also consider if a formal search process was under way for a full-time officer at the time.
6. “Immediate family member” follows the SEC’s definition of such and covers spouses, parents, children, step-parents, step-children, siblings, in-laws, and any person (other than a tenant or employee) sharing the household of any director, nominee for director, executive officer, or significant shareholder of the company.
7. Professional services can be characterized as advisory in nature, generally involve access to sensitive company information or to strategic decision-making, and typically have a commission- or fee-based payment structure. Professional services generally include but are not limited to the following: investment banking/financial advisory services, commercial banking (beyond deposit services), investment services, insurance services, accounting/audit services, consulting services, marketing services, legal services, property management services, realtor services, lobbying services, executive search services, and IT consulting services. The following would generally be considered transactional relationships and not professional services: deposit services, IT tech support services, educational services, and construction services. The case of participation in a banking syndicate by a non-lead bank should be considered a transactional (and hence subject to the associated materiality test) rather than a professional relationship. “Of Counsel” relationships are only considered immaterial if the individual does not receive any form of compensation (in excess of \$10,000 per year) from, or is a retired partner of, the firm providing the professional service. The case of a company providing a professional service to one of its directors or to an entity with which one of its directors is affiliated, will be considered a transactional rather than a professional relationship. Insurance services and marketing services are assumed to be professional services unless the company explains why such services are not advisory.
8. A material transactional relationship, including grants to non-profit organizations, exists if the company makes annual payments to, or receives annual payments from, another entity, exceeding the greater of: \$200,000 or 5 percent of the recipient’s gross revenues, for a company that follows NASDAQ listing standards; or the greater of \$1,000,000 or 2 percent of the recipient’s gross revenues, for a company that follows NYSE listing standards. For a company that follows neither of the preceding standards, ISS will apply the NASDAQ-based materiality test. (The recipient is the party receiving the financial proceeds from the transaction).
9. Dissident directors who are parties to a voting agreement pursuant to a settlement or similar arrangement may be classified as Independent Directors if an analysis of the following factors indicates that the voting agreement does not compromise their alignment with all shareholders’ interests: the terms of the agreement; the duration of the standstill provision in the agreement; the limitations and requirements of actions that are agreed upon; if the dissident director nominee(s) is subject to the standstill; and if there any conflicting relationships or related party transactions.
10. Interlocks include: executive officers serving as directors on each other’s compensation or similar committees (or, in the absence of such a committee, on the board); or executive officers sitting on each other’s boards and at least one serves on the other’s compensation or similar committees (or, in the absence of such a committee, on the board).
11. The operating involvement of the founder with the company will be considered; if the founder was never employed by the company, ISS may deem him or her an Independent Director.

12. For purposes of ISS's director independence classification, "material" will be defined as a standard of relationship (financial, personal, or otherwise) that a reasonable person might conclude could potentially influence one's objectivity in the boardroom in a manner that would have a meaningful impact on an individual's ability to satisfy requisite fiduciary standards on behalf of shareholders.

Composition

Attendance at Board and Committee Meetings: Generally vote against or withhold from directors (except nominees who served only part of the fiscal year³) who attend less than 75 percent of the aggregate of their board and committee meetings for the period for which they served, unless an acceptable reason for absences is disclosed in the proxy or another SEC filing. Acceptable reasons for director absences are generally limited to the following:

- Medical issues/illness;
- Family emergencies; and
- Missing only one meeting (when the total of all meetings is three or fewer).

In cases of chronic poor attendance without reasonable justification, in addition to voting against the director(s) with poor attendance, generally vote against or withhold from appropriate members of the nominating/governance committees or the full board.

If the proxy disclosure is unclear and insufficient to determine whether a director attended at least 75 percent of the aggregate of his/her board and committee meetings during his/her period of service, vote against or withhold from the director(s) in question.

Overboarded Directors: Generally vote against or withhold from individual directors who:

- Sit on more than five public company boards; or
- Are CEOs of public companies who sit on the boards of more than two public companies besides their own— withhold only at their outside boards⁴.

Gender Diversity: Generally vote against or withhold from the chair of the nominating committee (or other directors on a case-by-case basis) at companies where there are no women on the company's board. An exception will be made if there was at least one woman on the board at the preceding annual meeting and the board makes a firm commitment to return to a gender-diverse status within a year.

Racial and/or Ethnic Diversity: For companies in the Russell 3000 or S&P 1500 indices, generally vote against or withhold from the chair of the nominating committee (or other directors on a case-by-case basis) where the board has no apparent racially or ethnically diverse members⁵. An exception will be made if there was racial and/or ethnic diversity on the board at the preceding annual meeting and the board makes a firm commitment to appoint at least one racial and/or ethnic diverse member within a year.

³ Nominees who served for only part of the fiscal year are generally exempted from the attendance policy.

⁴ Although all of a CEO's subsidiary boards with publicly-traded common stock will be counted as separate boards, ISS will not recommend a withhold vote for the CEO of a parent company board or any of the controlled (>50 percent ownership) subsidiaries of that parent but may do so at subsidiaries that are less than 50 percent controlled and boards outside the parent/subsidiary relationships.

⁵ Aggregate diversity statistics provided by the board will only be considered if specific to racial and/or ethnic diversity.

Responsiveness

Vote case-by-case on individual directors, committee members, or the entire board of directors as appropriate if:

- The board failed to act on a shareholder proposal that received the support of a majority of the shares cast in the previous year or failed to act on a management proposal seeking to ratify an existing charter/bylaw provision that received opposition of a majority of the shares cast in the previous year. Factors that will be considered are:
 - Disclosed outreach efforts by the board to shareholders in the wake of the vote;
 - Rationale provided in the proxy statement for the level of implementation;
 - The subject matter of the proposal;
 - The level of support for and opposition to the resolution in past meetings;
 - Actions taken by the board in response to the majority vote and its engagement with shareholders;
 - The continuation of the underlying issue as a voting item on the ballot (as either shareholder or management proposals); and
 - Other factors as appropriate.
- The board failed to act on takeover offers where the majority of shares are tendered;
- At the previous board election, any director received more than 50 percent withhold/against votes of the shares cast and the company has failed to address the issue(s) that caused the high withhold/against vote.

Vote case-by-case on Compensation Committee members (or, in exceptional cases, the full board) and the Say on Pay proposal if:

- The company's previous say-on-pay received the support of less than 70 percent of votes cast. Factors that will be considered are:
 - The company's response, including:
 - Disclosure of engagement efforts with major institutional investors, including the frequency and timing of engagements and the company participants (including whether independent directors participated);
 - Disclosure of the specific concerns voiced by dissenting shareholders that led to the say-on-pay opposition;
 - Disclosure of specific and meaningful actions taken to address shareholders' concerns;
 - Other recent compensation actions taken by the company;
 - Whether the issues raised are recurring or isolated;
 - The company's ownership structure; and
 - Whether the support level was less than 50 percent, which would warrant the highest degree of responsiveness.
- The board implements an advisory vote on executive compensation on a less frequent basis than the frequency that received the plurality of votes cast.

Accountability

PROBLEMATIC TAKEOVER DEFENSES, CAPITAL STRUCTURE, AND GOVERNANCE STRUCTURE

Poison Pills: Generally vote against or withhold from all nominees (except new nominees¹, who should be considered case-by-case) if:

- The company has a poison pill with a deadhand or slowhand feature⁶;

⁶ If a short-term pill with a deadhand or slowhand feature is enacted but expires before the next shareholder vote, ISS will generally still recommend withhold/against nominees at the next shareholder meeting following its adoption.

- The board makes a material adverse modification to an existing pill, including, but not limited to, extension, renewal, or lowering the trigger, without shareholder approval; or
- The company has a long-term poison pill (with a term of over one year) that was not approved by the public shareholders⁷.

Vote case-by-case on nominees if the board adopts an initial short-term pill⁶ (with a term of one year or less) without shareholder approval, taking into consideration:

- The disclosed rationale for the adoption;
- The trigger;
- The company's market capitalization (including absolute level and sudden changes);
- A commitment to put any renewal to a shareholder vote; and
- Other factors as relevant.

Unequal Voting Rights: Generally vote withhold or against directors individually, committee members, or the entire board (except new nominees¹, who should be considered case-by-case), if the company employs a common stock structure with unequal voting rights⁸.

Exceptions to this policy will generally be limited to:

- Newly-public companies⁹ with a sunset provision of no more than seven years from the date of going public;
- Limited Partnerships and the Operating Partnership (OP) unit structure of REITs;
- Situations where the super-voting shares represent less than 5% of total voting power and therefore considered to be *de minimis*; or
- The company provides sufficient protections for minority shareholders, such as allowing minority shareholders a regular binding vote on whether the capital structure should be maintained.

Classified Board Structure: The board is classified, and a continuing director responsible for a problematic governance issue at the board/committee level that would warrant a withhold/against vote recommendation is not up for election. All appropriate nominees (except new) may be held accountable.

Removal of Shareholder Discretion on Classified Boards: The company has opted into, or failed to opt out of, state laws requiring a classified board structure.

Problematic Governance Structure: For companies that hold or held their first annual meeting⁹ of public shareholders after Feb. 1, 2015, generally vote against or withhold from directors individually, committee members, or the entire board (except new nominees¹, who should be considered case-by-case) if, prior to or in connection with the company's public offering, the company or its board adopted the following bylaw or charter provisions that are considered to be materially adverse to shareholder rights:

- Supermajority vote requirements to amend the bylaws or charter;
- A classified board structure; or
- Other egregious provisions.

⁷ Approval prior to, or in connection, with a company's becoming publicly-traded, or in connection with a de-SPAC transaction, is insufficient.

⁸ This generally includes classes of common stock that have additional votes per share than other shares; classes of shares that are not entitled to vote on all the same ballot items or nominees; or stock with time-phased voting rights ("loyalty shares").

⁹ Includes companies that emerge from bankruptcy, SPAC transactions, spin-offs, direct listings, and those who complete a traditional initial public offering.

A provision which specifies that the problematic structure(s) will be sunset within seven years of the date of going public will be considered a mitigating factor.

Unless the adverse provision is reversed or removed, vote case-by-case on director nominees in subsequent years.

Unilateral Bylaw/Charter Amendments: Generally vote against or withhold from directors individually, committee members, or the entire board (except new nominees¹, who should be considered case-by-case) if the board amends the company's bylaws or charter without shareholder approval in a manner that materially diminishes shareholders' rights or that could adversely impact shareholders, considering the following factors:

- The board's rationale for adopting the bylaw/charter amendment without shareholder ratification;
- Disclosure by the company of any significant engagement with shareholders regarding the amendment;
- The level of impairment of shareholders' rights caused by the board's unilateral amendment to the bylaws/charter;
- The board's track record with regard to unilateral board action on bylaw/charter amendments or other entrenchment provisions;
- The company's ownership structure;
- The company's existing governance provisions;
- The timing of the board's amendment to the bylaws/charter in connection with a significant business development; and
- Other factors, as deemed appropriate, that may be relevant to determine the impact of the amendment on shareholders.

Unless the adverse amendment is reversed or submitted to a binding shareholder vote, in subsequent years vote case-by-case on director nominees. Generally vote against (except new nominees¹, who should be considered case-by-case) if the directors:

- Classified the board;
- Adopted supermajority vote requirements to amend the bylaws or charter;
- Eliminated shareholders' ability to amend bylaws;
- Adopted a [fee-shifting provision](#); or
- Adopted another provision deemed egregious.

Restricting Binding Shareholder Proposals: Generally vote against or withhold from the members of the governance committee if:

- The company's governing documents impose undue restrictions on shareholders' ability to amend the bylaws. Such restrictions include but are not limited to: outright prohibition on the submission of binding shareholder proposals or share ownership requirements, subject matter restrictions, or time holding requirements in excess of SEC Rule 14a-8. Vote against or withhold on an ongoing basis.

Submission of management proposals to approve or ratify requirements in excess of SEC Rule 14a-8 for the submission of binding bylaw amendments will generally be viewed as an insufficient restoration of shareholders' rights. Generally continue to vote against or withhold on an ongoing basis until shareholders are provided with an unfettered ability to amend the bylaws or a proposal providing for such unfettered right is submitted for shareholder approval.

Director Performance Evaluation: The board lacks mechanisms to promote accountability and oversight, coupled with sustained poor performance relative to peers. Sustained poor performance is measured by one-, three-, and five-year total shareholder returns in the bottom half of a company's four-digit GICS industry group (Russell 3000 companies only). Take into consideration the company's operational metrics and other factors as warranted. Problematic provisions include but are not limited to:

- A classified board structure;

- A supermajority vote requirement;
- Either a plurality vote standard in uncontested director elections, or a majority vote standard in contested elections;
- The inability of shareholders to call special meetings;
- The inability of shareholders to act by written consent;
- A multi-class capital structure; and/or
- A non-shareholder-approved poison pill.

Management Proposals to Ratify Existing Charter or Bylaw Provisions: Vote against/withhold from individual directors, members of the governance committee, or the full board, where boards ask shareholders to ratify existing charter or bylaw provisions considering the following factors:

- The presence of a shareholder proposal addressing the same issue on the same ballot;
- The board's rationale for seeking ratification;
- Disclosure of actions to be taken by the board should the ratification proposal fail;
- Disclosure of shareholder engagement regarding the board's ratification request;
- The level of impairment to shareholders' rights caused by the existing provision;
- The history of management and shareholder proposals on the provision at the company's past meetings;
- Whether the current provision was adopted in response to the shareholder proposal;
- The company's ownership structure; and
- Previous use of ratification proposals to exclude shareholder proposals.

Problematic Audit-Related Practices

Generally vote against or withhold from the members of the Audit Committee if:

- The non-audit fees paid to the auditor are [excessive](#);
- The company receives an adverse opinion on the company's financial statements from its auditor; or
- There is persuasive evidence that the Audit Committee entered into an inappropriate indemnification agreement with its auditor that limits the ability of the company, or its shareholders, to pursue legitimate legal recourse against the audit firm.

Vote case-by-case on members of the Audit Committee and potentially the full board if:

- Poor accounting practices are identified that rise to a level of serious concern, such as: fraud; misapplication of GAAP; and material weaknesses identified in Section 404 disclosures. Examine the severity, breadth, chronological sequence, and duration, as well as the company's efforts at remediation or corrective actions, in determining whether withhold/against votes are warranted.

Problematic Compensation Practices

In the absence of an Advisory Vote on Executive Compensation (Say on Pay) ballot item or in egregious situations, vote against or withhold from the members of the Compensation Committee and potentially the full board if:

- There is an unmitigated misalignment between CEO pay and company performance ([pay for performance](#));
- The company maintains significant [problematic pay practices](#); or
- The board exhibits a significant level of [poor communication and responsiveness](#) to shareholders.

Generally vote against or withhold from the Compensation Committee chair, other committee members, or potentially the full board if:

- The company fails to include a Say on Pay ballot item when required under SEC provisions, or under the company's declared frequency of say on pay; or
- The company fails to include a Frequency of Say on Pay ballot item when required under SEC provisions.

Generally vote against members of the board committee responsible for approving/setting non-employee director compensation if there is a pattern (i.e. two or more years) of awarding excessive non-employee director compensation without disclosing a compelling rationale or other mitigating factors.

Problematic Pledging of Company Stock: Vote against the members of the committee that oversees risks related to pledging, or the full board, where a significant level of pledged company stock by executives or directors raises concerns. The following factors will be considered:

- The presence of an anti-pledging policy, disclosed in the proxy statement, that prohibits future pledging activity;
- The magnitude of aggregate pledged shares in terms of total common shares outstanding, market value, and trading volume;
- Disclosure of progress or lack thereof in reducing the magnitude of aggregate pledged shares over time;
- Disclosure in the proxy statement that shares subject to stock ownership and holding requirements do not include pledged company stock; and
- Any other relevant factors.

Governance Failures

Under extraordinary circumstances, vote against or withhold from directors individually, committee members, or the entire board, due to:

- Material failures of governance, stewardship, risk oversight¹⁰, or fiduciary responsibilities at the company;
- Failure to replace management as appropriate; or
- Egregious actions related to a director's service on other boards that raise substantial doubt about his or her ability to effectively oversee management and serve the best interests of shareholders at any company.

Voting on Director Nominees in Contested Elections

Vote-No Campaigns

General Recommendation: In cases where companies are targeted in connection with public “vote-no” campaigns, evaluate director nominees under the existing governance policies for voting on director nominees in uncontested elections. Take into consideration the arguments submitted by shareholders and other publicly available information.

Proxy Contests/Proxy Access

General Recommendation: Vote case-by-case on the election of directors in contested elections, considering the following factors:

- Long-term financial performance of the company relative to its industry;
- Management's track record;
- Background to the contested election;
- Nominee qualifications and any compensatory arrangements;
- Strategic plan of dissident slate and quality of the critique against management;

¹⁰ Examples of failure of risk oversight include but are not limited to: bribery; large or serial fines or sanctions from regulatory bodies; significant adverse legal judgments or settlement; or hedging of company stock.

- Likelihood that the proposed goals and objectives can be achieved (both slates); and
- Stock ownership positions.

In the case of candidates nominated pursuant to proxy access, vote case-by-case considering any applicable factors listed above or additional factors which may be relevant, including those that are specific to the company, to the nominee(s) and/or to the nature of the election (such as whether there are more candidates than board seats).

Other Board-Related Proposals

Adopt Anti-Hedging/Pledging/Speculative Investments Policy

General Recommendation: Generally vote for proposals seeking a policy that prohibits named executive officers from engaging in derivative or speculative transactions involving company stock, including hedging, holding stock in a margin account, or pledging stock as collateral for a loan. However, the company's existing policies regarding responsible use of company stock will be considered.

Board Refreshment

Board refreshment is best implemented through an ongoing program of individual director evaluations, conducted annually, to ensure the evolving needs of the board are met and to bring in fresh perspectives, skills, and diversity as needed.

Term/Tenure Limits

General Recommendation: Vote case-by-case on management proposals regarding director term/tenure limits, considering:

- The rationale provided for adoption of the term/tenure limit;
- The robustness of the company's board evaluation process;
- Whether the limit is of sufficient length to allow for a broad range of director tenures;
- Whether the limit would disadvantage independent directors compared to non-independent directors; and
- Whether the board will impose the limit evenly, and not have the ability to waive it in a discriminatory manner.

Vote case-by-case on shareholder proposals asking for the company to adopt director term/tenure limits, considering:

- The scope of the shareholder proposal; and
- Evidence of problematic issues at the company combined with, or exacerbated by, a lack of board refreshment.

Age Limits

General Recommendation: Generally vote against management and shareholder proposals to limit the tenure of independent directors through mandatory retirement ages. Vote for proposals to remove mandatory age limits.

Board Size

General Recommendation: Vote for proposals seeking to fix the board size or designate a range for the board size.

Vote against proposals that give management the ability to alter the size of the board outside of a specified range without shareholder approval.

Classification/Declassification of the Board

General Recommendation: Vote against proposals to classify (stagger) the board.

Vote for proposals to repeal classified boards and to elect all directors annually.

CEO Succession Planning

General Recommendation: Generally vote for proposals seeking disclosure on a CEO succession planning policy, considering, at a minimum, the following factors:

- The reasonableness/scope of the request; and
- The company's existing disclosure on its current CEO succession planning process.

Cumulative Voting

General Recommendation: Generally vote against management proposals to eliminate cumulate voting, and for shareholder proposals to restore or provide for cumulative voting, unless:

- The company has proxy access¹¹, thereby allowing shareholders to nominate directors to the company's ballot; and
- The company has adopted a majority vote standard, with a carve-out for plurality voting in situations where there are more nominees than seats, and a director resignation policy to address failed elections.

Vote for proposals for cumulative voting at controlled companies (insider voting power > 50%).

Director and Officer Indemnification, Liability Protection, and Exculpation

General Recommendation: Vote case-by-case on proposals on director and officer indemnification, liability protection, and exculpation¹².

Consider the stated rationale for the proposed change. Also consider, among other factors, the extent to which the proposal would:

- Eliminate directors' and officers' liability for monetary damages for violating the duty of care.
- Eliminate directors' and officers' liability for monetary damages for violating the duty of loyalty.
- Expand coverage beyond just legal expenses to liability for acts that are more serious violations of fiduciary obligation than mere carelessness.
- Expand the scope of indemnification to provide for mandatory indemnification of company officials in connection with acts that previously the company was permitted to provide indemnification for, at the

¹¹ A proxy access right that meets the [recommended guidelines](#).

¹² **Indemnification:** the condition of being secured against loss or damage.

Limited liability: a person's financial liability is limited to a fixed sum, or personal financial assets are not at risk if the individual loses a lawsuit that results in financial award/damages to the plaintiff.

Exculpation: to eliminate or limit the personal liability of a director or officer to the corporation or its shareholders for monetary damages for breach of fiduciary duty as a director or officer.

discretion of the company's board (*i.e.*, "permissive indemnification"), but that previously the company was not required to indemnify.

Vote for those proposals providing such expanded coverage in cases when a director's or officer's legal defense was unsuccessful if both of the following apply:

- If the individual was found to have acted in good faith and in a manner that the individual reasonably believed was in the best interests of the company; and

If only the individual's legal expenses would be covered.

Establish/Amend Nominee Qualifications

General Recommendation: Vote case-by-case on proposals that establish or amend director qualifications. Votes should be based on the reasonableness of the criteria and the degree to which they may preclude dissident nominees from joining the board.

Vote case-by-case on shareholder resolutions seeking a director nominee who possesses a particular subject matter expertise, considering:

- The company's board committee structure, existing subject matter expertise, and board nomination provisions relative to that of its peers;
- The company's existing board and management oversight mechanisms regarding the issue for which board oversight is sought;
- The company's disclosure and performance relating to the issue for which board oversight is sought and any significant related controversies; and
- The scope and structure of the proposal.

Establish Other Board Committee Proposals

General Recommendation: Generally vote against shareholder proposals to establish a new board committee, as such proposals seek a specific oversight mechanism/structure that potentially limits a company's flexibility to determine an appropriate oversight mechanism for itself. However, the following factors will be considered:

- Existing oversight mechanisms (including current committee structure) regarding the issue for which board oversight is sought;
- Level of disclosure regarding the issue for which board oversight is sought;
- Company performance related to the issue for which board oversight is sought;
- Board committee structure compared to that of other companies in its industry sector; and
- The scope and structure of the proposal.

Filling Vacancies/Removal of Directors

General Recommendation: Vote against proposals that provide that directors may be removed only for cause. Vote for proposals to restore shareholders' ability to remove directors with or without cause.

Vote against proposals that provide that only continuing directors may elect replacements to fill board vacancies.

Vote for proposals that permit shareholders to elect directors to fill board vacancies.

Independent Board Chair

General Recommendation: Generally vote for shareholder proposals requiring that the board chair position be filled by an independent director, taking into consideration the following:

- The scope and rationale of the proposal;
- The company's current board leadership structure;
- The company's governance structure and practices;
- Company performance; and
- Any other relevant factors that may be applicable.

The following factors will increase the likelihood of a “for” recommendation:

- A majority non-independent board and/or the presence of non-independent directors on key board committees;
- A weak or poorly-defined lead independent director role that fails to serve as an appropriate counterbalance to a combined CEO/chair role;
- The presence of an executive or non-independent chair in addition to the CEO, a recent recombination of the role of CEO and chair, and/or departure from a structure with an independent chair;
- Evidence that the board has failed to oversee and address material risks facing the company;
- A material governance failure, particularly if the board has failed to adequately respond to shareholder concerns or if the board has materially diminished shareholder rights; or
- Evidence that the board has failed to intervene when management's interests are contrary to shareholders' interests.

Majority of Independent Directors/Establishment of Independent Committees

General Recommendation: Vote for shareholder proposals asking that a majority or more of directors be independent unless the board composition already meets the proposed threshold by ISS' definition of Independent Director (See [ISS' Classification of Directors](#).)

Vote for shareholder proposals asking that board audit, compensation, and/or nominating committees be composed exclusively of independent directors unless they currently meet that standard.

Majority Vote Standard for the Election of Directors

General Recommendation: Generally vote for management proposals to adopt a majority of votes cast standard for directors in uncontested elections. Vote against if no carve-out for a plurality vote standard in contested elections is included.

Generally vote for precatory and binding shareholder resolutions requesting that the board change the company's bylaws to stipulate that directors need to be elected with an affirmative majority of votes cast, provided it does not conflict with the state law where the company is incorporated. Binding resolutions need to allow for a carve-out for a plurality vote standard when there are more nominees than board seats.

Companies are strongly encouraged to also adopt a post-election policy (also known as a director resignation policy) that will provide guidelines so that the company will promptly address the situation of a holdover director.

Proxy Access

General Recommendation: Generally vote for management and shareholder proposals for proxy access with the following provisions:

- **Ownership threshold:** maximum requirement not more than three percent (3%) of the voting power;
- **Ownership duration:** maximum requirement not longer than three (3) years of continuous ownership for each member of the nominating group;
- **Aggregation:** minimal or no limits on the number of shareholders permitted to form a nominating group;
- **Cap:** cap on nominees of generally twenty-five percent (25%) of the board.

Review for reasonableness any other restrictions on the right of proxy access. Generally vote against proposals that are more restrictive than these guidelines.

Require More Nominees than Open Seats

General Recommendation: Vote against shareholder proposals that would require a company to nominate more candidates than the number of open board seats.

Shareholder Engagement Policy (Shareholder Advisory Committee)

General Recommendation: Generally vote for shareholder proposals requesting that the board establish an internal mechanism/process, which may include a committee, in order to improve communications between directors and shareholders, unless the company has the following features, as appropriate:

- Established a communication structure that goes beyond the exchange requirements to facilitate the exchange of information between shareholders and members of the board;
- Effectively disclosed information with respect to this structure to its shareholders;
- Company has not ignored majority-supported shareholder proposals, or a majority withhold vote on a director nominee; and
- The company has an independent chair or a lead director, according to [ISS' definition](#). This individual must be made available for periodic consultation and direct communication with major shareholders.

2. Audit-Related

Auditor Indemnification and Limitation of Liability

General Recommendation: Vote case-by-case on the issue of auditor indemnification and limitation of liability. Factors to be assessed include, but are not limited to:

- The terms of the auditor agreement—the degree to which these agreements impact shareholders' rights;
- The motivation and rationale for establishing the agreements;
- The quality of the company's disclosure; and
- The company's historical practices in the audit area.

Vote against or withhold from members of an audit committee in situations where there is persuasive evidence that the audit committee entered into an inappropriate indemnification agreement with its auditor that limits the ability of the company, or its shareholders, to pursue legitimate legal recourse against the audit firm.

Auditor Ratification

General Recommendation: Vote for proposals to ratify auditors unless any of the following apply:

- An auditor has a financial interest in or association with the company, and is therefore not independent;
- There is reason to believe that the independent auditor has rendered an opinion that is neither accurate nor indicative of the company's financial position;
- Poor accounting practices are identified that rise to a serious level of concern, such as fraud or misapplication of GAAP; or
- Fees for non-audit services ("Other" fees) are excessive.

Non-audit fees are excessive if:

- $\text{Non-audit ("other") fees} > \text{audit fees} + \text{audit-related fees} + \text{tax compliance/preparation fees}$

Tax compliance and preparation include the preparation of original and amended tax returns and refund claims, and tax payment planning. All other services in the tax category, such as tax advice, planning, or consulting, should be added to "Other" fees. If the breakout of tax fees cannot be determined, add all tax fees to "Other" fees.

In circumstances where "Other" fees include fees related to significant one-time capital structure events (such as initial public offerings, bankruptcy emergence, and spin-offs) and the company makes public disclosure of the amount and nature of those fees that are an exception to the standard "non-audit fee" category, then such fees may be excluded from the non-audit fees considered in determining the ratio of non-audit to audit/audit-related fees/tax compliance and preparation for purposes of determining whether non-audit fees are excessive.

Shareholder Proposals Limiting Non-Audit Services

General Recommendation: Vote case-by-case on shareholder proposals asking companies to prohibit or limit their auditors from engaging in non-audit services.

Shareholder Proposals on Audit Firm Rotation

General Recommendation: Vote case-by-case on shareholder proposals asking for audit firm rotation, taking into account:

- The tenure of the audit firm;
- The length of rotation specified in the proposal;
- Any significant audit-related issues at the company;
- The number of Audit Committee meetings held each year;
- The number of financial experts serving on the committee; and
- Whether the company has a periodic renewal process where the auditor is evaluated for both audit quality and competitive price.

3. Shareholder Rights & Defenses

Advance Notice Requirements for Shareholder Proposals/Nominations

General Recommendation: Vote case-by-case on advance notice proposals, giving support to those proposals which allow shareholders to submit proposals/nominations as close to the meeting date as reasonably possible and within the broadest window possible, recognizing the need to allow sufficient notice for company, regulatory, and shareholder review.

To be reasonable, the company's deadline for shareholder notice of a proposal/nominations must be no earlier than 120 days prior to the anniversary of the previous year's meeting and have a submittal window of no shorter than 30 days from the beginning of the notice period (also known as a 90-120-day window). The submittal window is the period under which shareholders must file their proposals/nominations prior to the deadline.

In general, support additional efforts by companies to ensure full disclosure in regard to a proponent's economic and voting position in the company so long as the informational requirements are reasonable and aimed at providing shareholders with the necessary information to review such proposals.

Amend Bylaws without Shareholder Consent

General Recommendation: Vote against proposals giving the board exclusive authority to amend the bylaws.

Vote case-by-case on proposals giving the board the ability to amend the bylaws in addition to shareholders, taking into account the following:

- Any impediments to shareholders' ability to amend the bylaws (i.e. supermajority voting requirements);
- The company's ownership structure and historical voting turnout;
- Whether the board could amend bylaws adopted by shareholders; and
- Whether shareholders would retain the ability to ratify any board-initiated amendments.

Control Share Acquisition Provisions

General Recommendation: Vote for proposals to opt out of control share acquisition statutes unless doing so would enable the completion of a takeover that would be detrimental to shareholders.

Vote against proposals to amend the charter to include control share acquisition provisions.

Vote for proposals to restore voting rights to the control shares.

Control share acquisition statutes function by denying shares their voting rights when they contribute to ownership in excess of certain thresholds. Voting rights for those shares exceeding ownership limits may only be restored by approval of either a majority or supermajority of disinterested shares. Thus, control share acquisition statutes effectively require a hostile bidder to put its offer to a shareholder vote or risk voting disenfranchisement if the bidder continues buying up a large block of shares.

Control Share Cash-Out Provisions

General Recommendation: Vote for proposals to opt out of control share cash-out statutes.

Control share cash-out statutes give dissident shareholders the right to "cash-out" of their position in a company at the expense of the shareholder who has taken a control position. In other words, when an investor crosses a preset threshold level, remaining shareholders are given the right to sell their shares to the acquirer, who must buy them at the highest acquiring price.

Disgorgement Provisions

General Recommendation: Vote for proposals to opt out of state disgorgement provisions.

Disgorgement provisions require an acquirer or potential acquirer of more than a certain percentage of a company's stock to disgorge, or pay back, to the company any profits realized from the sale of that company's stock purchased 24 months before achieving control status. All sales of company stock by the acquirer occurring within a certain period of time (between 18 months and 24 months) prior to the investor's gaining control status are subject to these recapture-of-profits provisions.

Fair Price Provisions

General Recommendation: Vote case-by-case on proposals to adopt fair price provisions (provisions that stipulate that an acquirer must pay the same price to acquire all shares as it paid to acquire the control shares), evaluating factors such as the vote required to approve the proposed acquisition, the vote required to repeal the fair price provision, and the mechanism for determining the fair price.

Generally vote against fair price provisions with shareholder vote requirements greater than a majority of disinterested shares.

Freeze-Out Provisions

General Recommendation: Vote for proposals to opt out of state freeze-out provisions. Freeze-out provisions force an investor who surpasses a certain ownership threshold in a company to wait a specified period of time before gaining control of the company.

Greenmail

General Recommendation: Vote for proposals to adopt anti-greenmail charter or bylaw amendments or otherwise restrict a company's ability to make greenmail payments.

Vote case-by-case on anti-greenmail proposals when they are bundled with other charter or bylaw amendments.

Greenmail payments are targeted share repurchases by management of company stock from individuals or groups seeking control of the company. Since only the hostile party receives payment, usually at a substantial premium over the market value of its shares, the practice discriminates against all other shareholders.

Shareholder Litigation Rights

Federal Forum Selection Provisions

Federal forum selection provisions require that U.S. federal courts be the sole forum for shareholders to litigate claims arising under federal securities law.

General Recommendation: Generally vote for federal forum selection provisions in the charter or bylaws that specify "the district courts of the United States" as the exclusive forum for federal securities law matters, in the absence of serious concerns about corporate governance or board responsiveness to shareholders.

Vote against provisions that restrict the forum to a particular federal district court; unilateral adoption (without a shareholder vote) of such a provision will generally be considered a one-time failure under the [Unilateral Bylaw/Charter Amendments](#) policy.

Exclusive Forum Provisions for State Law Matters

Exclusive forum provisions in the charter or bylaws restrict shareholders' ability to bring derivative lawsuits against the company, for claims arising out of state corporate law, to the courts of a particular state (generally the state of incorporation).

General Recommendation: Generally vote for charter or bylaw provisions that specify courts located within the state of Delaware as the exclusive forum for corporate law matters for Delaware corporations, in the absence of serious concerns about corporate governance or board responsiveness to shareholders.

For states other than Delaware, vote case-by-case on exclusive forum provisions, taking into consideration:

- The company's stated rationale for adopting such a provision;
- Disclosure of past harm from duplicative shareholder lawsuits in more than one forum;
- The breadth of application of the charter or bylaw provision, including the types of lawsuits to which it would apply and the definition of key terms; and
- Governance features such as shareholders' ability to repeal the provision at a later date (including the vote standard applied when shareholders attempt to amend the charter or bylaws) and their ability to hold directors accountable through annual director elections and a majority vote standard in uncontested elections.

Generally vote against provisions that specify a state other than the state of incorporation as the exclusive forum for corporate law matters, or that specify a particular local court within the state; unilateral adoption of such a provision will generally be considered a one-time failure under the [Unilateral Bylaw/Charter Amendments](#) policy.

Fee shifting

Fee-shifting provisions in the charter or bylaws require that a shareholder who sues a company unsuccessfully pay all litigation expenses of the defendant corporation and its directors and officers.

General Recommendation: Generally vote against provisions that mandate fee-shifting whenever plaintiffs are not completely successful on the merits (i.e., including cases where the plaintiffs are partially successful).

Unilateral adoption of a fee-shifting provision will generally be considered an ongoing failure under the [Unilateral Bylaw/Charter Amendments](#) policy.

Net Operating Loss (NOL) Protective Amendments

General Recommendation: Vote against proposals to adopt a protective amendment for the stated purpose of protecting a company's net operating losses (NOL) if the effective term of the protective amendment would exceed the shorter of three years and the exhaustion of the NOL.

Vote case-by-case, considering the following factors, for management proposals to adopt an NOL protective amendment that would remain in effect for the shorter of three years (or less) and the exhaustion of the NOL:

- The ownership threshold (NOL protective amendments generally prohibit stock ownership transfers that would result in a new 5-percent holder or increase the stock ownership percentage of an existing 5-percent holder);
- The value of the NOLs;
- Shareholder protection mechanisms (sunset provision or commitment to cause expiration of the protective amendment upon exhaustion or expiration of the NOL);
- The company's existing governance structure including: board independence, existing takeover defenses, track record of responsiveness to shareholders, and any other problematic governance concerns; and
- Any other factors that may be applicable.

Poison Pills (Shareholder Rights Plans)

Shareholder Proposals to Put Pill to a Vote and/or Adopt a Pill Policy

General Recommendation: Vote for shareholder proposals requesting that the company submit its poison pill to a shareholder vote or redeem it unless the company has: (1) A shareholder-approved poison pill in place; or (2) The company has adopted a policy concerning the adoption of a pill in the future specifying that the board will only adopt a shareholder rights plan if either:

- Shareholders have approved the adoption of the plan; or
- The board, in its exercise of its fiduciary responsibilities, determines that it is in the best interest of shareholders under the circumstances to adopt a pill without the delay in adoption that would result from seeking stockholder approval (i.e., the "fiduciary out" provision). A poison pill adopted under this fiduciary out will be put to a shareholder ratification vote within 12 months of adoption or expire. If the pill is not approved by a majority of the votes cast on this issue, the plan will immediately terminate.

If the shareholder proposal calls for a time period of less than 12 months for shareholder ratification after adoption, vote for the proposal, but add the caveat that a vote within 12 months would be considered sufficient implementation.

Management Proposals to Ratify a Poison Pill

General Recommendation: Vote case-by-case on management proposals on poison pill ratification, focusing on the features of the shareholder rights plan. Rights plans should contain the following attributes:

- No lower than a 20 percent trigger, flip-in or flip-over;
- A term of no more than three years;
- No deadhand, slowhand, no-hand, or similar feature that limits the ability of a future board to redeem the pill;
- Shareholder redemption feature (qualifying offer clause); if the board refuses to redeem the pill 90 days after a qualifying offer is announced, 10 percent of the shares may call a special meeting or seek a written consent to vote on rescinding the pill.

In addition, the rationale for adopting the pill should be thoroughly explained by the company. In examining the request for the pill, take into consideration the company's existing governance structure, including: board independence, existing takeover defenses, and any problematic governance concerns.

Management Proposals to Ratify a Pill to Preserve Net Operating Losses (NOLs)

General Recommendation: Vote against proposals to adopt a poison pill for the stated purpose of protecting a company's net operating losses (NOL) if the term of the pill would exceed the shorter of three years and the exhaustion of the NOL.

Vote case-by-case on management proposals for poison pill ratification, considering the following factors, if the term of the pill would be the shorter of three years (or less) and the exhaustion of the NOL:

- The ownership threshold to transfer (NOL pills generally have a trigger slightly below 5 percent);
- The value of the NOLs;
- Shareholder protection mechanisms (sunset provision, or commitment to cause expiration of the pill upon exhaustion or expiration of NOLs);
- The company's existing governance structure, including: board independence, existing takeover defenses, track record of responsiveness to shareholders, and any other problematic governance concerns; and
- Any other factors that may be applicable.

Proxy Voting Disclosure, Confidentiality, and Tabulation

General Recommendation: Vote case-by-case on proposals regarding proxy voting mechanics, taking into consideration whether implementation of the proposal is likely to enhance or protect shareholder rights. Specific issues covered under the policy include, but are not limited to, confidential voting of individual proxies and ballots, confidentiality of running vote tallies, and the treatment of abstentions and/or broker non-votes in the company's vote-counting methodology.

While a variety of factors may be considered in each analysis, the guiding principles are: transparency, consistency, and fairness in the proxy voting process. The factors considered, as applicable to the proposal, may include:

- The scope and structure of the proposal;
- The company's stated confidential voting policy (or other relevant policies) and whether it ensures a "level playing field" by providing shareholder proponents with equal access to vote information prior to the annual meeting;
- The company's vote standard for management and shareholder proposals and whether it ensures consistency and fairness in the proxy voting process and maintains the integrity of vote results;
- Whether the company's disclosure regarding its vote counting method and other relevant voting policies with respect to management and shareholder proposals are consistent and clear;
- Any recent controversies or concerns related to the company's proxy voting mechanics;
- Any unintended consequences resulting from implementation of the proposal; and
- Any other factors that may be relevant.

Ratification Proposals: Management Proposals to Ratify Existing Charter or Bylaw Provisions

General Recommendation: Generally vote against management proposals to ratify provisions of the company's existing charter or bylaws, unless these governance provisions align with best practice.

In addition, voting against/withhold from individual directors, members of the governance committee, or the full board may be warranted, considering:

- The presence of a shareholder proposal addressing the same issue on the same ballot;
- The board's rationale for seeking ratification;
- Disclosure of actions to be taken by the board should the ratification proposal fail;
- Disclosure of shareholder engagement regarding the board's ratification request;
- The level of impairment to shareholders' rights caused by the existing provision;
- The history of management and shareholder proposals on the provision at the company's past meetings;
- Whether the current provision was adopted in response to the shareholder proposal;
- The company's ownership structure; and
- Previous use of ratification proposals to exclude shareholder proposals.

Reimbursing Proxy Solicitation Expenses

General Recommendation: Vote case-by-case on proposals to reimburse proxy solicitation expenses.

When voting in conjunction with support of a dissident slate, vote for the reimbursement of all appropriate proxy solicitation expenses associated with the election.

Generally vote for shareholder proposals calling for the reimbursement of reasonable costs incurred in connection with nominating one or more candidates in a contested election where the following apply:

- The election of fewer than 50 percent of the directors to be elected is contested in the election;
- One or more of the dissident's candidates is elected;
- Shareholders are not permitted to cumulate their votes for directors; and
- The election occurred, and the expenses were incurred, after the adoption of this bylaw.

Reincorporation Proposals

General Recommendation: Management or shareholder proposals to change a company's state of incorporation should be evaluated case-by-case, giving consideration to both financial and corporate governance concerns including the following:

- Reasons for reincorporation;
- Comparison of company's governance practices and provisions prior to and following the reincorporation; and
- Comparison of corporation laws of original state and destination state.

Vote for reincorporation when the economic factors outweigh any neutral or negative governance changes.

Shareholder Ability to Act by Written Consent

General Recommendation: Generally vote against management and shareholder proposals to restrict or prohibit shareholders' ability to act by written consent.

Generally vote for management and shareholder proposals that provide shareholders with the ability to act by written consent, taking into account the following factors:

- Shareholders' current right to act by written consent;
- The consent threshold;
- The inclusion of exclusionary or prohibitive language;

- Investor ownership structure; and
- Shareholder support of, and management's response to, previous shareholder proposals.

Vote case-by-case on shareholder proposals if, in addition to the considerations above, the company has the following governance and antitakeover provisions:

- An unfettered¹³ right for shareholders to call special meetings at a 10 percent threshold;
- A majority vote standard in uncontested director elections;
- No non-shareholder-approved pill; and
- An annually elected board.

Shareholder Ability to Call Special Meetings

General Recommendation: Vote against management or shareholder proposals to restrict or prohibit shareholders' ability to call special meetings.

Generally vote for management or shareholder proposals that provide shareholders with the ability to call special meetings taking into account the following factors:

- Shareholders' current right to call special meetings;
- Minimum ownership threshold necessary to call special meetings (10 percent preferred);
- The inclusion of exclusionary or prohibitive language;
- Investor ownership structure; and
- Shareholder support of, and management's response to, previous shareholder proposals.

Stakeholder Provisions

General Recommendation: Vote against proposals that ask the board to consider non-shareholder constituencies or other non-financial effects when evaluating a merger or business combination.

State Antitakeover Statutes

General Recommendation: Vote case-by-case on proposals to opt in or out of state takeover statutes (including fair price provisions, stakeholder laws, poison pill endorsements, severance pay and labor contract provisions, and anti-greenmail provisions).

Supermajority Vote Requirements

General Recommendation: Vote against proposals to require a supermajority shareholder vote.

Vote for management or shareholder proposals to reduce supermajority vote requirements. However, for companies with shareholder(s) who have significant ownership levels, vote case-by-case, taking into account:

- Ownership structure;
- Quorum requirements; and
- Vote requirements.

¹³ "Unfettered" means no restrictions on agenda items, no restrictions on the number of shareholders who can group together to reach the 10 percent threshold, and only reasonable limits on when a meeting can be called: no greater than 30 days after the last annual meeting and no greater than 90 prior to the next annual meeting.

Virtual Shareholder Meetings

General Recommendation: Generally vote for management proposals allowing for the convening of shareholder meetings by electronic means, so long as they do not preclude in-person meetings. Companies are encouraged to disclose the circumstances under which virtual-only¹⁴ meetings would be held, and to allow for comparable rights and opportunities for shareholders to participate electronically as they would have during an in-person meeting.

Vote case-by-case on shareholder proposals concerning virtual-only meetings, considering:

- Scope and rationale of the proposal; and
- Concerns identified with the company's prior meeting practices.

¹⁴ Virtual-only shareholder meeting" refers to a meeting of shareholders that is held exclusively using technology without a corresponding in-person meeting.

4. Capital/Restructuring

Capital

Adjustments to Par Value of Common Stock

General Recommendation: Vote for management proposals to reduce the par value of common stock unless the action is being taken to facilitate an anti-takeover device or some other negative corporate governance action.

Vote for management proposals to eliminate par value.

Common Stock Authorization

General Authorization Requests

General Recommendation: Vote case-by-case on proposals to increase the number of authorized shares of common stock that are to be used for general corporate purposes:

- If share usage (outstanding plus reserved) is less than 50% of the current authorized shares, vote for an increase of up to **50%** of current authorized shares.
- If share usage is 50% to 100% of the current authorized, vote for an increase of up to **100%** of current authorized shares.
- If share usage is greater than current authorized shares, vote for an increase of up to the current share usage.
- In the case of a stock split, the allowable increase is calculated (per above) based on the post-split adjusted authorization.

Generally vote against proposed increases, even if within the above ratios, if the proposal or the company's prior or ongoing use of authorized shares is problematic, including, but not limited to:

- The proposal seeks to increase the number of authorized shares of the class of common stock that has superior voting rights to other share classes;
- On the same ballot is a proposal for a reverse split for which support is warranted despite the fact that it would result in an excessive increase in the share authorization;
- The company has a non-shareholder approved poison pill (including an NOL pill); or
- The company has previous sizeable placements (within the past 3 years) of stock with insiders at prices substantially below market value, or with problematic voting rights, without shareholder approval.

However, generally vote for proposed increases beyond the above ratios or problematic situations when there is disclosure of specific and severe risks to shareholders of not approving the request, such as:

- In, or subsequent to, the company's most recent 10-K filing, the company discloses that there is substantial doubt about its ability to continue as a going concern;
- The company states that there is a risk of imminent bankruptcy or imminent liquidation if shareholders do not approve the increase in authorized capital; or
- A government body has in the past year required the company to increase its capital ratios.

For companies incorporated in states that allow increases in authorized capital without shareholder approval, generally vote withhold or against all nominees if a unilateral capital authorization increase does not conform to the above policies.

Specific Authorization Requests

General Recommendation: Generally vote for proposals to increase the number of authorized common shares where the primary purpose of the increase is to issue shares in connection with transaction(s) (such as acquisitions, SPAC transactions, private placements, or similar transactions) on the same ballot, or disclosed in the proxy statement, that warrant support. For such transactions, the allowable increase will be the greater of:

- twice the amount needed to support the transactions on the ballot, and
- the allowable increase as calculated for general issuances above.

Dual Class Structure

General Recommendation: Generally vote against proposals to create a new class of common stock unless:

- The company discloses a compelling rationale for the dual-class capital structure, such as:
- The company's auditor has concluded that there is substantial doubt about the company's ability to continue as a going concern; or
- The new class of shares will be transitory;
- The new class is intended for financing purposes with minimal or no dilution to current shareholders in both the short term and long term; and
- The new class is not designed to preserve or increase the voting power of an insider or significant shareholder.

Issue Stock for Use with Rights Plan

General Recommendation: Vote against proposals that increase authorized common stock for the explicit purpose of implementing a non-shareholder-approved shareholder rights plan (poison pill).

Preemptive Rights

General Recommendation: Vote case-by-case on shareholder proposals that seek preemptive rights, taking into consideration:

- The size of the company;
- The shareholder base; and
- The liquidity of the stock.

Preferred Stock Authorization

General Authorization Requests

General Recommendation: Vote case-by-case on proposals to increase the number of authorized shares of preferred stock that are to be used for general corporate purposes:

- If share usage (outstanding plus reserved) is less than 50% of the current authorized shares, vote for an increase of up to **50%** of current authorized shares.
- If share usage is 50% to 100% of the current authorized, vote for an increase of up to **100%** of current authorized shares.
- If share usage is greater than current authorized shares, vote for an increase of up to the current share usage.

- In the case of a stock split, the allowable increase is calculated (per above) based on the post-split adjusted authorization.
- If no preferred shares are currently issued and outstanding, vote against the request, unless the company discloses a specific use for the shares.

Generally vote against proposed increases, even if within the above ratios, if the proposal or the company's prior or ongoing use of authorized shares is problematic, including, but not limited to:

- If the shares requested are blank check preferred shares that can be used for antitakeover purposes;¹⁵
- The company seeks to increase a class of non-convertible preferred shares entitled to more than one vote per share on matters that do not solely affect the rights of preferred stockholders "supervoting shares");
- The company seeks to increase a class of convertible preferred shares entitled to a number of votes greater than the number of common shares into which they are convertible ("supervoting shares") on matters that do not solely affect the rights of preferred stockholders;
- The stated intent of the increase in the general authorization is to allow the company to increase an existing designated class of supervoting preferred shares;
- On the same ballot is a proposal for a reverse split for which support is warranted despite the fact that it would result in an excessive increase in the share authorization;
- The company has a non-shareholder approved poison pill (including an NOL pill); or
- The company has previous sizeable placements (within the past 3 years) of stock with insiders at prices substantially below market value, or with problematic voting rights, without shareholder approval.

However, generally vote for proposed increases beyond the above ratios or problematic situations when there is disclosure of specific and severe risks to shareholders of not approving the request, such as:

- In, or subsequent to, the company's most recent 10-K filing, the company discloses that there is substantial doubt about its ability to continue as a going concern;
- The company states that there is a risk of imminent bankruptcy or imminent liquidation if shareholders do not approve the increase in authorized capital; or
- A government body has in the past year required the company to increase its capital ratios.

For companies incorporated in states that allow increases in authorized capital without shareholder approval, generally vote withhold or against all nominees if a unilateral capital authorization increase does not conform to the above policies.

Specific Authorization Requests

General Recommendation: Generally vote for proposals to increase the number of authorized preferred shares where the primary purpose of the increase is to issue shares in connection with transaction(s) (such as acquisitions, SPAC transactions, private placements, or similar transactions) on the same ballot, or disclosed in the proxy statement, that warrant support. For such transactions, the allowable increase will be the greater of:

- twice the amount needed to support the transactions on the ballot, and
- the allowable increase as calculated for general issuances above.

¹⁵ To be acceptable, appropriate disclosure would be needed that the shares are "declawed": i.e., representation by the board that it will not, without prior stockholder approval, issue or use the preferred stock for any defensive or anti-takeover purpose or for the purpose of implementing any stockholder rights plan.

Recapitalization Plans

General Recommendation: Vote case-by-case on recapitalizations (reclassifications of securities), taking into account the following:

- More simplified capital structure;
- Enhanced liquidity;
- Fairness of conversion terms;
- Impact on voting power and dividends;
- Reasons for the reclassification;
- Conflicts of interest; and
- Other alternatives considered.

Reverse Stock Splits

General Recommendation: Vote for management proposals to implement a reverse stock split if:

- The number of authorized shares will be proportionately reduced; or
- The effective increase in authorized shares is equal to or less than the allowable increase calculated in accordance with ISS' [Common Stock Authorization](#) policy.

Vote case-by-case on proposals that do not meet either of the above conditions, taking into consideration the following factors:

- Stock exchange notification to the company of a potential delisting;
- Disclosure of substantial doubt about the company's ability to continue as a going concern without additional financing;
- The company's rationale; or
- Other factors as applicable.

Share Issuance Mandates at U.S. Domestic Issuers Incorporated Outside the U.S.

General Recommendation: For U.S. domestic issuers incorporated outside the U.S. and listed solely on a U.S. exchange, generally vote for resolutions to authorize the issuance of common shares up to 20 percent of currently issued common share capital, where not tied to a specific transaction or financing proposal.

For pre-revenue or other early-stage companies that are heavily reliant on periodic equity financing, generally vote for resolutions to authorize the issuance of common shares up to 50 percent of currently issued common share capital. The burden of proof will be on the company to establish that it has a need for the higher limit.

Renewal of such mandates should be sought at each year's annual meeting.

Vote case-by-case on share issuances for a specific transaction or financing proposal.

Share Repurchase Programs

General Recommendation: For U.S.-incorporated companies, and foreign-incorporated U.S. Domestic Issuers that are traded solely on U.S. exchanges, vote for management proposals to institute open-market share repurchase plans in which all shareholders may participate on equal terms, or to grant the board authority to conduct open-market repurchases, in the absence of company-specific concerns regarding:

- Greenmail;
- The use of buybacks to inappropriately manipulate incentive compensation metrics;
- Threats to the company's long-term viability; or
- Other company-specific factors as warranted.

Vote case-by-case on proposals to repurchase shares directly from specified shareholders, balancing the stated rationale against the possibility for the repurchase authority to be misused, such as to repurchase shares from insiders at a premium to market price.

Share Repurchase Programs Shareholder Proposals

General Recommendation: Generally vote against shareholder proposals prohibiting executives from selling shares of company stock during periods in which the company has announced that it may or will be repurchasing shares of its stock. Vote for the proposal when there is a pattern of abuse by executives exercising options or selling shares during periods of share buybacks.

Stock Distributions: Splits and Dividends

General Recommendation: Generally vote for management proposals to increase the common share authorization for stock split or stock dividend, provided that the effective increase in authorized shares is equal to or is less than the allowable increase calculated in accordance with ISS' Common Stock Authorization policy.

Tracking Stock

General Recommendation: Vote case-by-case on the creation of tracking stock, weighing the strategic value of the transaction against such factors as:

- Adverse governance changes;
- Excessive increases in authorized capital stock;
- Unfair method of distribution;
- Diminution of voting rights;
- Adverse conversion features;
- Negative impact on stock option plans; and
- Alternatives such as spin-off.

Restructuring

Appraisal Rights

General Recommendation: Vote for proposals to restore or provide shareholders with rights of appraisal.

Asset Purchases

General Recommendation: Vote case-by-case on asset purchase proposals, considering the following factors:

- Purchase price;
- Fairness opinion;
- Financial and strategic benefits;
- How the deal was negotiated;
- Conflicts of interest;
- Other alternatives for the business;
- Non-completion risk.

Asset Sales

General Recommendation: Vote case-by-case on asset sales, considering the following factors:

- Impact on the balance sheet/working capital;
- Potential elimination of diseconomies;
- Anticipated financial and operating benefits;
- Anticipated use of funds;
- Value received for the asset;
- Fairness opinion;
- How the deal was negotiated;
- Conflicts of interest.

Bundled Proposals

General Recommendation: Vote case-by-case on bundled or “conditional” proxy proposals. In the case of items that are conditioned upon each other, examine the benefits and costs of the packaged items. In instances when the joint effect of the conditioned items is not in shareholders’ best interests, vote against the proposals. If the combined effect is positive, support such proposals.

Conversion of Securities

General Recommendation: Vote case-by-case on proposals regarding conversion of securities. When evaluating these proposals, the investor should review the dilution to existing shareholders, the conversion price relative to market value, financial issues, control issues, termination penalties, and conflicts of interest.

Vote for the conversion if it is expected that the company will be subject to onerous penalties or will be forced to file for bankruptcy if the transaction is not approved.

Corporate Reorganization/Debt Restructuring/Prepackaged Bankruptcy Plans/Reverse Leveraged Buyouts/Wrap Plans

General Recommendation: Vote case-by-case on proposals to increase common and/or preferred shares and to issue shares as part of a debt restructuring plan, after evaluating:

- Dilution to existing shareholders' positions;
- Terms of the offer - discount/premium in purchase price to investor, including any fairness opinion; termination penalties; exit strategy;

- Financial issues - company's financial situation; degree of need for capital; use of proceeds; effect of the financing on the company's cost of capital;
- Management's efforts to pursue other alternatives;
- Control issues - change in management; change in control, guaranteed board and committee seats; standstill provisions; voting agreements; veto power over certain corporate actions; and
- Conflict of interest - arm's length transaction, managerial incentives.

Vote for the debt restructuring if it is expected that the company will file for bankruptcy if the transaction is not approved.

Formation of Holding Company

General Recommendation: Vote case-by-case on proposals regarding the formation of a holding company, taking into consideration the following:

- The reasons for the change;
- Any financial or tax benefits;
- Regulatory benefits;
- Increases in capital structure; and
- Changes to the articles of incorporation or bylaws of the company.

Absent compelling financial reasons to recommend for the transaction, vote against the formation of a holding company if the transaction would include either of the following:

- Increases in common or preferred stock in excess of the allowable maximum (see discussion under "Capital"); or
- Adverse changes in shareholder rights.

Going Private and Going Dark Transactions (LBOs and Minority Squeeze-outs)

General Recommendation: Vote case-by-case on going private transactions, taking into account the following:

- Offer price/premium;
- Fairness opinion;
- How the deal was negotiated;
- Conflicts of interest;
- Other alternatives/offers considered; and
- Non-completion risk.

Vote case-by-case on going dark transactions, determining whether the transaction enhances shareholder value by taking into consideration:

- Whether the company has attained benefits from being publicly-traded (examination of trading volume, liquidity, and market research of the stock);
- Balanced interests of continuing vs. cashed-out shareholders, taking into account the following:
 - Are all shareholders able to participate in the transaction?
 - Will there be a liquid market for remaining shareholders following the transaction?
 - Does the company have strong corporate governance?
 - Will insiders reap the gains of control following the proposed transaction?
 - Does the state of incorporation have laws requiring continued reporting that may benefit shareholders?

Joint Ventures

General Recommendation: Vote case-by-case on proposals to form joint ventures, taking into account the following:

- Percentage of assets/business contributed;
- Percentage ownership;
- Financial and strategic benefits;
- Governance structure;
- Conflicts of interest;
- Other alternatives; and
- Non-completion risk.

Liquidations

General Recommendation: Vote case-by-case on liquidations, taking into account the following:

- Management's efforts to pursue other alternatives;
- Appraisal value of assets; and
- The compensation plan for executives managing the liquidation.

Vote for the liquidation if the company will file for bankruptcy if the proposal is not approved.

Mergers and Acquisitions

General Recommendation: Vote case-by-case on mergers and acquisitions. Review and evaluate the merits and drawbacks of the proposed transaction, balancing various and sometimes countervailing factors including:

- *Valuation* - Is the value to be received by the target shareholders (or paid by the acquirer) reasonable? While the fairness opinion may provide an initial starting point for assessing valuation reasonableness, emphasis is placed on the offer premium, market reaction, and strategic rationale.
- *Market reaction* - How has the market responded to the proposed deal? A negative market reaction should cause closer scrutiny of a deal.
- *Strategic rationale* - Does the deal make sense strategically? From where is the value derived? Cost and revenue synergies should not be overly aggressive or optimistic, but reasonably achievable. Management should also have a favorable track record of successful integration of historical acquisitions.
- *Negotiations and process* - Were the terms of the transaction negotiated at arm's-length? Was the process fair and equitable? A fair process helps to ensure the best price for shareholders. Significant negotiation "wins" can also signify the deal makers' competency. The comprehensiveness of the sales process (e.g., full auction, partial auction, no auction) can also affect shareholder value.
- *Conflicts of interest* - Are insiders benefiting from the transaction disproportionately and inappropriately as compared to non-insider shareholders? As the result of potential conflicts, the directors and officers of the company may be more likely to vote to approve a merger than if they did not hold these interests. Consider whether these interests may have influenced these directors and officers to support or recommend the merger. The CIC figure presented in the "ISS Transaction Summary" section of this report is an aggregate figure that can in certain cases be a misleading indicator of the true value transfer from shareholders to insiders. Where such figure appears to be excessive, analyze the underlying assumptions to determine whether a potential conflict exists.
- *Governance* - Will the combined company have a better or worse governance profile than the current governance profiles of the respective parties to the transaction? If the governance profile is to change for the

worse, the burden is on the company to prove that other issues (such as valuation) outweigh any deterioration in governance.

Private Placements/Warrants/Convertible Debentures

General Recommendation: Vote case-by-case on proposals regarding private placements, warrants, and convertible debentures taking into consideration:

- Dilution to existing shareholders' position: The amount and timing of shareholder ownership dilution should be weighed against the needs and proposed shareholder benefits of the capital infusion. Although newly issued common stock, absent preemptive rights, is typically dilutive to existing shareholders, share price appreciation is often the necessary event to trigger the exercise of "out of the money" warrants and convertible debt. In these instances from a value standpoint, the negative impact of dilution is mitigated by the increase in the company's stock price that must occur to trigger the dilutive event.
- Terms of the offer (discount/premium in purchase price to investor, including any fairness opinion, conversion features, termination penalties, exit strategy):
 - The terms of the offer should be weighed against the alternatives of the company and in light of company's financial condition. Ideally, the conversion price for convertible debt and the exercise price for warrants should be at a premium to the then prevailing stock price at the time of private placement.
 - When evaluating the magnitude of a private placement discount or premium, consider factors that influence the discount or premium, such as, liquidity, due diligence costs, control and monitoring costs, capital scarcity, information asymmetry, and anticipation of future performance.
- Financial issues:
 - The company's financial condition;
 - Degree of need for capital;
 - Use of proceeds;
 - Effect of the financing on the company's cost of capital;
 - Current and proposed cash burn rate;
 - Going concern viability and the state of the capital and credit markets.
- Management's efforts to pursue alternatives and whether the company engaged in a process to evaluate alternatives: A fair, unconstrained process helps to ensure the best price for shareholders. Financing alternatives can include joint ventures, partnership, merger, or sale of part or all of the company.
- Control issues:
 - Change in management;
 - Change in control;
 - Guaranteed board and committee seats;
 - Standstill provisions;
 - Voting agreements;
 - Veto power over certain corporate actions; and
 - Minority versus majority ownership and corresponding minority discount or majority control premium.
- Conflicts of interest:
 - Conflicts of interest should be viewed from the perspective of the company and the investor.
 - Were the terms of the transaction negotiated at arm's length? Are managerial incentives aligned with shareholder interests?
- Market reaction:

- The market's response to the proposed deal. A negative market reaction is a cause for concern. Market reaction may be addressed by analyzing the one-day impact on the unaffected stock price.

Vote for the private placement, or for the issuance of warrants and/or convertible debentures in a private placement, if it is expected that the company will file for bankruptcy if the transaction is not approved.

Reorganization/Restructuring Plan (Bankruptcy)

General Recommendation: Vote case-by-case on proposals to common shareholders on bankruptcy plans of reorganization, considering the following factors including, but not limited to:

- Estimated value and financial prospects of the reorganized company;
- Percentage ownership of current shareholders in the reorganized company;
- Whether shareholders are adequately represented in the reorganization process (particularly through the existence of an Official Equity Committee);
- The cause(s) of the bankruptcy filing, and the extent to which the plan of reorganization addresses the cause(s);
- Existence of a superior alternative to the plan of reorganization; and
- Governance of the reorganized company.

Special Purpose Acquisition Corporations (SPACs)

General Recommendation: Vote case-by-case on SPAC mergers and acquisitions taking into account the following:

- *Valuation* - Is the value being paid by the SPAC reasonable? SPACs generally lack an independent fairness opinion and the financials on the target may be limited. Compare the conversion price with the intrinsic value of the target company provided in the fairness opinion. Also, evaluate the proportionate value of the combined entity attributable to the SPAC IPO shareholders versus the pre-merger value of SPAC. Additionally, a private company discount may be applied to the target if it is a private entity.
- *Market reaction* - How has the market responded to the proposed deal? A negative market reaction may be a cause for concern. Market reaction may be addressed by analyzing the one-day impact on the unaffected stock price.
- *Deal timing* - A main driver for most transactions is that the SPAC charter typically requires the deal to be complete within 18 to 24 months, or the SPAC is to be liquidated. Evaluate the valuation, market reaction, and potential conflicts of interest for deals that are announced close to the liquidation date.
- *Negotiations and process* - What was the process undertaken to identify potential target companies within specified industry or location specified in charter? Consider the background of the sponsors.
- *Conflicts of interest* - How are sponsors benefiting from the transaction compared to IPO shareholders? Potential conflicts could arise if a fairness opinion is issued by the insiders to qualify the deal rather than a third party or if management is encouraged to pay a higher price for the target because of an 80 percent rule (the charter requires that the fair market value of the target is at least equal to 80 percent of net assets of the SPAC). Also, there may be sense of urgency by the management team of the SPAC to close the deal since its charter typically requires a transaction to be completed within the 18-24-month timeframe.
- *Voting agreements* - Are the sponsors entering into any voting agreements/tender offers with shareholders who are likely to vote against the proposed merger or exercise conversion rights?
- *Governance* - What is the impact of having the SPAC CEO or founder on key committees following the proposed merger?

Special Purpose Acquisition Corporations (SPACs) - Proposals for Extensions

General Recommendation: Vote case-by-case on SPAC extension proposals taking into account the length of the requested extension, the status of any pending transaction(s) or progression of the acquisition process, any added incentive for non-redeeming shareholders, and any prior extension requests.

- *Length of request:* Typically, extension requests range from two to six months, depending on the progression of the SPAC's acquisition process.
- *Pending transaction(s) or progression of the acquisition process:* Sometimes an initial business combination was already put to a shareholder vote, but, for varying reasons, the transaction could not be consummated by the termination date and the SPAC is requesting an extension. Other times, the SPAC has entered into a definitive transaction agreement, but needs additional time to consummate or hold the shareholder meeting.
- *Added incentive for non-redeeming shareholders:* Sometimes the SPAC sponsor (or other insiders) will contribute, typically as a loan to the company, additional funds that will be added to the redemption value of each public share as long as such shares are not redeemed in connection with the extension request. The purpose of the "equity kicker" is to incentivize shareholders to hold their shares through the end of the requested extension or until the time the transaction is put to a shareholder vote, rather than electing redemption at the extension proposal meeting.
- *Prior extension requests:* Some SPACs request additional time beyond the extension period sought in prior extension requests.

Spin-offs

General Recommendation: Vote case-by-case on spin-offs, considering:

- Tax and regulatory advantages;
- Planned use of the sale proceeds;
- Valuation of spinoff;
- Fairness opinion;
- Benefits to the parent company;
- Conflicts of interest;
- Managerial incentives;
- Corporate governance changes;
- Changes in the capital structure.

Value Maximization Shareholder Proposals

General Recommendation: Vote case-by-case on shareholder proposals seeking to maximize shareholder value by:

- Hiring a financial advisor to explore strategic alternatives;
- Selling the company; or
- Liquidating the company and distributing the proceeds to shareholders.

These proposals should be evaluated based on the following factors:

- Prolonged poor performance with no turnaround in sight;
- Signs of entrenched board and management (such as the adoption of takeover defenses);
- Strategic plan in place for improving value;
- Likelihood of receiving reasonable value in a sale or dissolution; and
- The company actively exploring its strategic options, including retaining a financial advisor.

5. Compensation

Executive Pay Evaluation

Underlying all evaluations are five global principles that most investors expect corporations to adhere to in designing and administering executive and director compensation programs:

1. Maintain appropriate pay-for-performance alignment, with emphasis on long-term shareholder value: This principle encompasses overall executive pay practices, which must be designed to attract, retain, and appropriately motivate the key employees who drive shareholder value creation over the long term. It will take into consideration, among other factors, the link between pay and performance; the mix between fixed and variable pay; performance goals; and equity-based plan costs;
2. Avoid arrangements that risk “pay for failure”: This principle addresses the appropriateness of long or indefinite contracts, excessive severance packages, and guaranteed compensation;
3. Maintain an independent and effective compensation committee: This principle promotes oversight of executive pay programs by directors with appropriate skills, knowledge, experience, and a sound process for compensation decision-making (*e.g.*, including access to independent expertise and advice when needed);
4. Provide shareholders with clear, comprehensive compensation disclosures: This principle underscores the importance of informative and timely disclosures that enable shareholders to evaluate executive pay practices fully and fairly;
5. Avoid inappropriate pay to non-executive directors: This principle recognizes the interests of shareholders in ensuring that compensation to outside directors is reasonable and does not compromise their independence and ability to make appropriate judgments in overseeing managers’ pay and performance. At the market level, it may incorporate a variety of generally accepted best practices.

Advisory Votes on Executive Compensation — Management Proposals (Say-on-Pay)

General Recommendation: Vote case-by-case on ballot items related to executive pay and practices, as well as certain aspects of outside director compensation.

Vote against Advisory Votes on Executive Compensation (Say-on-Pay or “SOP”) if:

- There is an unmitigated misalignment between CEO pay and company performance ([pay for performance](#));
- The company maintains significant [problematic pay practices](#);
- The board exhibits a significant level of [poor communication and responsiveness](#) to shareholders.

Vote against or withhold from the members of the Compensation Committee and potentially the full board if:

- There is no SOP on the ballot, and an against vote on an SOP would otherwise be warranted due to pay-for-performance misalignment, problematic pay practices, or the lack of adequate responsiveness on compensation issues raised previously, or a combination thereof;
- The board fails to respond adequately to a previous SOP proposal that received less than 70 percent support of votes cast;
- The company has recently practiced or approved problematic pay practices, such as option repricing or option backdating; or
- The situation is egregious.

Primary Evaluation Factors for Executive Pay

Pay-for-Performance Evaluation

ISS annually conducts a pay-for-performance analysis to identify strong or satisfactory alignment between pay and performance over a sustained period. With respect to companies in the S&P1500, Russell 3000, or Russell 3000E Indices¹⁶, this analysis considers the following:

1. Peer Group¹⁷ Alignment:
 - The degree of alignment between the company's annualized TSR rank and the CEO's annualized total pay rank within a peer group, each measured over a three-year period.
 - The rankings of CEO total pay and company financial performance within a peer group, each measured over a three-year period.
 - The multiple of the CEO's total pay relative to the peer group median in the most recent fiscal year.
2. Absolute Alignment¹⁸ – the absolute alignment between the trend in CEO pay and company TSR over the prior five fiscal years – i.e., the difference between the trend in annual pay changes and the trend in annualized TSR during the period.

If the above analysis demonstrates significant unsatisfactory long-term pay-for-performance alignment or, in the case of companies outside the Russell indices, a misalignment between pay and performance is otherwise suggested, our analysis may include any of the following qualitative factors, as relevant to an evaluation of how various pay elements may work to encourage or to undermine long-term value creation and alignment with shareholder interests:

- The ratio of performance- to time-based incentive awards;
- The overall ratio of performance-based compensation to fixed or discretionary pay;
- The rigor of performance goals;
- The complexity and risks around pay program design;
- The transparency and clarity of disclosure;
- The company's peer group benchmarking practices;
- Financial/operational results, both absolute and relative to peers;
- Special circumstances related to, for example, a new CEO in the prior FY or anomalous equity grant practices (e.g., bi-annual awards);
- Realizable pay¹⁹ compared to grant pay; and
- Any other factors deemed relevant.

¹⁶ The [Russell 3000E](#) Index includes approximately 4,000 of the largest U.S. equity securities.

¹⁷ The revised peer group is generally comprised of 14-24 companies that are selected using market cap, revenue (or assets for certain financial firms), GICS industry group, and company's selected peers' GICS industry group, with size constraints, via a process designed to select peers that are comparable to the subject company in terms of revenue/assets and industry, and also within a market-cap bucket that is reflective of the company's market cap. For Oil, Gas & Consumable Fuels companies, market cap is the only size determinant.

¹⁸ Only Russell 3000 Index companies are subject to the Absolute Alignment analysis.

¹⁹ ISS research reports include realizable pay for S&P1500 companies.

Problematic Pay Practices

Problematic pay elements are generally evaluated case-by-case considering the context of a company's overall pay program and demonstrated pay-for-performance philosophy. The focus is on executive compensation practices that contravene the global pay principles, including:

- Problematic practices related to non-performance-based compensation elements;
- Incentives that may motivate excessive risk-taking or present a windfall risk; and
- Pay decisions that circumvent pay-for-performance, such as options backdating or waiving performance requirements.

The list of examples below highlights certain problematic practices that carry significant weight in this overall consideration and may result in adverse vote recommendations:

- Repricing or replacing of underwater stock options/SARs without prior shareholder approval (including cash buyouts and voluntary surrender of underwater options);
- Extraordinary perquisites or tax gross-ups;
- New or materially amended agreements that provide for:
 - Excessive termination or CIC severance payments (generally exceeding 3 times base salary and average/target/most recent bonus);
 - CIC severance payments without involuntary job loss or substantial diminution of duties ("single" or "modified single" triggers) or in connection with a problematic Good Reason definition;
 - CIC excise tax gross-up entitlements (including "modified" gross-ups);
 - Multi-year guaranteed awards that are not at risk due to rigorous performance conditions;
- Liberal CIC definition combined with any single-trigger CIC benefits;
- Insufficient executive compensation disclosure by externally-managed issuers (EMIs) such that a reasonable assessment of pay programs and practices applicable to the EMI's executives is not possible;
- Severance payments made when the termination is not clearly disclosed as involuntary (for example, a termination without cause or resignation for good reason);
- Any other provision or practice deemed to be egregious and present a significant risk to investors.

The above examples are not an exhaustive list. Please refer to ISS' [U.S. Compensation Policies FAQ](#) document for additional detail on specific pay practices that have been identified as problematic and may lead to negative vote recommendations.

Options Backdating

The following factors should be examined case-by-case to allow for distinctions to be made between "sloppy" plan administration versus deliberate action or fraud:

- Reason and motive for the options backdating issue, such as inadvertent vs. deliberate grant date changes;
- Duration of options backdating;
- Size of restatement due to options backdating;
- Corrective actions taken by the board or compensation committee, such as canceling or re-pricing backdated options, the recouping of option gains on backdated grants; and
- Adoption of a grant policy that prohibits backdating and creates a fixed grant schedule or window period for equity grants in the future.

Compensation Committee Communications and Responsiveness

Consider the following factors case-by-case when evaluating ballot items related to executive pay on the board's responsiveness to investor input and engagement on compensation issues:

- Failure to respond to majority-supported shareholder proposals on executive pay topics; or
- Failure to adequately respond to the company's previous say-on-pay proposal that received the support of less than 70 percent of votes cast, taking into account:
 - Disclosure of engagement efforts with major institutional investors, including the frequency and timing of engagements and the company participants (including whether independent directors participated);
 - Disclosure of the specific concerns voiced by dissenting shareholders that led to the say-on-pay opposition;
 - Disclosure of specific and meaningful actions taken to address shareholders' concerns;
 - Other recent compensation actions taken by the company;
 - Whether the issues raised are recurring or isolated;
 - The company's ownership structure; and
 - Whether the support level was less than 50 percent, which would warrant the highest degree of responsiveness.

Frequency of Advisory Vote on Executive Compensation ("Say When on Pay")

General Recommendation: Vote for annual advisory votes on compensation, which provide the most consistent and clear communication channel for shareholder concerns about companies' executive pay programs.

Voting on Golden Parachutes in an Acquisition, Merger, Consolidation, or Proposed Sale

General Recommendation: Vote case-by-case on say on Golden Parachute proposals, including consideration of existing change-in-control arrangements maintained with named executive officers but also considering new or extended arrangements.

Features that may result in an "against" recommendation include one or more of the following, depending on the number, magnitude, and/or timing of issue(s):

- Single- or modified-single-trigger cash severance;
- Single-trigger acceleration of unvested equity awards;
- Full acceleration of equity awards granted shortly before the change in control;
- Acceleration of performance awards above the target level of performance without compelling rationale;
- Excessive cash severance (generally >3x base salary and bonus);
- Excise tax gross-ups triggered and payable;
- Excessive golden parachute payments (on an absolute basis or as a percentage of transaction equity value); or
- Recent amendments that incorporate any problematic features (such as those above) or recent actions (such as extraordinary equity grants) that may make packages so attractive as to influence merger agreements that may not be in the best interests of shareholders; or
- The company's assertion that a proposed transaction is conditioned on shareholder approval of the golden parachute advisory vote.

Recent amendment(s) that incorporate problematic features will tend to carry more weight on the overall analysis. However, the presence of multiple legacy problematic features will also be closely scrutinized.

In cases where the golden parachute vote is incorporated into a company's advisory vote on compensation (management say-on-pay), ISS will evaluate the say-on-pay proposal in accordance with these guidelines, which may give higher weight to that component of the overall evaluation.

Equity-Based and Other Incentive Plans

Please refer to ISS' [U.S. Equity Compensation Plans FAQ](#) document for additional details on the Equity Plan Scorecard policy.

General Recommendation: Vote case-by-case on certain equity-based compensation plans²⁰ depending on a combination of certain plan features and equity grant practices, where positive factors may counterbalance negative factors, and vice versa, as evaluated using an "Equity Plan Scorecard" (EPSC) approach with three pillars:

- **Plan Cost:** The total estimated cost of the company's equity plans relative to industry/market cap peers, measured by the company's estimated Shareholder Value Transfer (SVT) in relation to peers and considering both:
 - SVT based on new shares requested plus shares remaining for future grants, plus outstanding unvested/unexercised grants; and
 - SVT based only on new shares requested plus shares remaining for future grants.
- **Plan Features:**
 - Quality of disclosure around vesting upon a change in control (CIC);
 - Discretionary vesting authority;
 - Liberal share recycling on various award types;
 - Lack of minimum vesting period for grants made under the plan;
 - Dividends payable prior to award vesting.
- **Grant Practices:**
 - The company's three-year burn rate relative to its industry/market cap peers;
 - Vesting requirements in CEO's recent equity grants (3-year look-back);
 - The estimated duration of the plan (based on the sum of shares remaining available and the new shares requested, divided by the average annual shares granted in the prior three years);
 - The proportion of the CEO's most recent equity grants/awards subject to performance conditions;
 - Whether the company maintains a sufficient claw-back policy;
 - Whether the company maintains sufficient post-exercise/vesting share-holding requirements.

Generally vote against the plan proposal if the combination of above factors indicates that the plan is not, overall, in shareholders' interests, or if any of the following egregious factors ("overriding factors") apply:

- Awards may vest in connection with a liberal change-of-control definition;
- The plan would permit repricing or cash buyout of underwater options without shareholder approval (either by expressly permitting it – for NYSE and Nasdaq listed companies – or by not prohibiting it when the company has a history of repricing – for non-listed companies);
- The plan is a vehicle for problematic pay practices or a significant pay-for-performance disconnect under certain circumstances;
- The plan is excessively dilutive to shareholders' holdings;
- The plan contains an evergreen (automatic share replenishment) feature; or

²⁰ Proposals evaluated under the EPSC policy generally include those to approve or amend (1) stock option plans for employees and/or employees and directors, (2) restricted stock plans for employees and/or employees and directors, and (3) omnibus stock incentive plans for employees and/or employees and directors; amended plans will be further evaluated case-by-case.

- Any other plan features are determined to have a significant negative impact on shareholder interests.

Further Information on certain EPSC Factors:

Shareholder Value Transfer (SVT)

The cost of the equity plans is expressed as Shareholder Value Transfer (SVT), which is measured using a binomial option pricing model that assesses the amount of shareholders' equity flowing out of the company to employees and directors. SVT is expressed as both a dollar amount and as a percentage of market value, and includes the new shares proposed, shares available under existing plans, and shares granted but unexercised (using two measures, in the case of plans subject to the Equity Plan Scorecard evaluation, as noted above). All award types are valued. For omnibus plans, unless limitations are placed on the most expensive types of awards (for example, full-value awards), the assumption is made that all awards to be granted will be the most expensive types.

For proposals that are not subject to the Equity Plan Scorecard evaluation, Shareholder Value Transfer is reasonable if it falls below a company-specific benchmark. The benchmark is determined as follows: The top quartile performers in each industry group (using the Global Industry Classification Standard: GICS) are identified. Benchmark SVT levels for each industry are established based on these top performers' historic SVT. Regression analyses are run on each industry group to identify the variables most strongly correlated to SVT. The benchmark industry SVT level is then adjusted upwards or downwards for the specific company by plugging the company-specific performance measures, size, and cash compensation into the industry cap equations to arrive at the company's benchmark.²¹

Three-Year Value-Adjusted Burn Rate

A "Value-Adjusted Burn Rate" is used for stock plan evaluations. Value-Adjusted Burn Rate benchmarks are calculated as the greater of: (1) an industry-specific threshold based on three-year burn rates within the company's GICS group segmented by S&P 500, Russell 3000 index (less the S&P 500) and non-Russell 3000 index; and (2) a *de minimis* threshold established separately for each of the S&P 500, the Russell 3000 index less the S&P 500, and the non-Russell 3000 index. Year-over-year burn-rate benchmark changes will be limited to a predetermined range above or below the prior year's burn-rate benchmark.

The Value-Adjusted Burn Rate is calculated as follows:

Value-Adjusted Burn Rate = ((# of options * option's dollar value using a Black-Scholes model) + (# of full-value awards * stock price)) / (Weighted average common shares * stock price).

Egregious Factors

Liberal Change in Control Definition

Generally vote against equity plans if the plan has a liberal definition of change in control and the equity awards could vest upon such liberal definition of change in control, even though an actual change in control may not occur. Examples of such a definition include, but are not limited to, announcement or commencement of a tender

²¹ For plans evaluated under the Equity Plan Scorecard policy, the company's SVT benchmark is considered along with other factors.

offer, provisions for acceleration upon a “potential” takeover, shareholder approval of a merger or other transactions, or similar language.

Repricing Provisions

Vote against plans that expressly permit the repricing or exchange of underwater stock options/stock appreciate rights (SARs) without prior shareholder approval. “Repricing” typically includes the ability to do any of the following:

- Amend the terms of outstanding options or SARs to reduce the exercise price of such outstanding options or SARs;
- Cancel outstanding options or SARs in exchange for options or SARs with an exercise price that is less than the exercise price of the original options or SARs;
- Cancel underwater options in exchange for stock awards; or
- Provide cash buyouts of underwater options.

While the above cover most types of repricing, ISS may view other provisions as akin to repricing depending on the facts and circumstances.

Also, vote against or withhold from members of the Compensation Committee who approved repricing (as defined above or otherwise determined by ISS), without prior shareholder approval, even if such repricings are allowed in their equity plan.

Vote against plans that do not expressly prohibit repricing or cash buyout of underwater options without shareholder approval if the company has a history of repricing/buyouts without shareholder approval, and the applicable listing standards would not preclude them from doing so.

Problematic Pay Practices or Significant Pay-for-Performance Disconnect

If the equity plan on the ballot is a vehicle for [problematic pay practices](#), vote against the plan.

ISS may recommend a vote against the equity plan if the plan is determined to be a vehicle for pay-for-performance misalignment. Considerations in voting against the equity plan may include, but are not limited to:

- Severity of the pay-for-performance misalignment;
- Whether problematic equity grant practices are driving the misalignment; and/or
- Whether equity plan awards have been heavily concentrated to the CEO and/or the other NEOs.

Amending Cash and Equity Plans (including Approval for Tax Deductibility (162(m)))

General Recommendation: Vote case-by-case on amendments to cash and equity incentive plans.

Generally vote for proposals to amend executive cash, stock, or cash and stock incentive plans if the proposal:

- Addresses administrative features only; or
- Seeks approval for Section 162(m) purposes only, and the plan administering committee consists entirely of independent directors, per ISS’ [Classification of Directors](#). Note that if the company is presenting the plan to shareholders for the first time for any reason (including after the company’s initial public offering), or if the proposal is bundled with other material plan amendments, then the recommendation will be case-by-case (see below).

Vote against proposals to amend executive cash, stock, or cash and stock incentive plans if the proposal:

- Seeks approval for Section 162(m) purposes only, and the plan administering committee does not consist entirely of independent directors, per [ISS' Classification of Directors](#).

Vote case-by-case on all other proposals to amend cash incentive plans. This includes plans presented to shareholders for the first time after the company's IPO and/or proposals that bundle material amendment(s) other than those for Section 162(m) purposes.

Vote case-by-case on all other proposals to amend equity incentive plans, considering the following:

- If the proposal requests additional shares and/or the amendments include a term extension or addition of full value awards as an award type, the recommendation will be based on the Equity Plan Scorecard evaluation as well as an analysis of the overall impact of the amendments.
- If the plan is being presented to shareholders for the first time (including after the company's IPO), whether or not additional shares are being requested, the recommendation will be based on the Equity Plan Scorecard evaluation as well as an analysis of the overall impact of any amendments.
- If there is no request for additional shares and the amendments do not include a term extension or addition of full value awards as an award type, then the recommendation will be based entirely on an analysis of the overall impact of the amendments, and the EPSC evaluation will be shown only for informational purposes.

In the first two case-by-case evaluation scenarios, the EPSC evaluation/score is the more heavily weighted consideration.

Specific Treatment of Certain Award Types in Equity Plan Evaluations

Dividend Equivalent Rights

Options that have Dividend Equivalent Rights (DERs) associated with them will have a higher calculated award value than those without DERs under the binomial model, based on the value of these dividend streams. The higher value will be applied to new shares, shares available under existing plans, and shares awarded but not exercised per the plan specifications. DERS transfer more shareholder equity to employees and non-employee directors and this cost should be captured.

Operating Partnership (OP) Units in Equity Plan Analysis of Real Estate Investment Trusts (REITs)

For Real Estate Investment Trusts (REITs), include the common shares issuable upon conversion of outstanding Operating Partnership (OP) units in the share count for the purposes of determining: (1) market capitalization in the Shareholder Value Transfer (SVT) analysis and (2) shares outstanding in the burn rate analysis.

Other Compensation Plans

401(k) Employee Benefit Plans

General Recommendation: Vote for proposals to implement a 401(k) savings plan for employees.

Employee Stock Ownership Plans (ESOPs)

General Recommendation: Vote for proposals to implement an ESOP or increase authorized shares for existing ESOPs, unless the number of shares allocated to the ESOP is excessive (more than five percent of outstanding shares).

Employee Stock Purchase Plans—Qualified Plans

General Recommendation: Vote case-by-case on qualified employee stock purchase plans. Vote for employee stock purchase plans where all of the following apply:

- Purchase price is at least 85 percent of fair market value;
- Offering period is 27 months or less; and
- The number of shares allocated to the plan is 10 percent or less of the outstanding shares.

Vote against qualified employee stock purchase plans where when the plan features do not meet all of the above criteria.

Employee Stock Purchase Plans—Non-Qualified Plans

General Recommendation: Vote case-by-case on nonqualified employee stock purchase plans. Vote for nonqualified employee stock purchase plans with all the following features:

- Broad-based participation;
- Limits on employee contribution, which may be a fixed dollar amount or expressed as a percent of base salary;
- Company matching contribution up to 25 percent of employee's contribution, which is effectively a discount of 20 percent from market value; and
- No discount on the stock price on the date of purchase when there is a company matching contribution.

Vote against nonqualified employee stock purchase plans when the plan features do not meet all of the above criteria. If the matching contribution or effective discount exceeds the above, ISS may evaluate the SVT cost of the plan as part of the assessment.

Option Exchange Programs/Repricing Options

General Recommendation: Vote case-by-case on management proposals seeking approval to exchange/reprice options taking into consideration:

- Historic trading patterns--the stock price should not be so volatile that the options are likely to be back "in-the-money" over the near term;
- Rationale for the re-pricing--was the stock price decline beyond management's control?;
- Is this a value-for-value exchange?;
- Are surrendered stock options added back to the plan reserve?;
- Timing--repricing should occur at least one year out from any precipitous drop in company's stock price;
- Option vesting--does the new option vest immediately or is there a black-out period?;
- Term of the option--the term should remain the same as that of the replaced option;
- Exercise price--should be set at fair market or a premium to market;
- Participants--executive officers and directors must be excluded.

If the surrendered options are added back to the equity plans for re-issuance, then also take into consideration the company's total cost of equity plans and its three-year average burn rate.

In addition to the above considerations, evaluate the intent, rationale, and timing of the repricing proposal. The proposal should clearly articulate why the board is choosing to conduct an exchange program at this point in time. Repricing underwater options after a recent precipitous drop in the company's stock price demonstrates poor timing and warrants additional scrutiny. Also, consider the terms of the surrendered options, such as the grant date, exercise price and vesting schedule. Grant dates of surrendered options should be far enough back (two to three years) so as not to suggest that repricings are being done to take advantage of short-term downward price movements. Similarly, the exercise price of surrendered options should be above the 52-week high for the stock price.

Vote for shareholder proposals to put option repricings to a shareholder vote.

Stock Plans in Lieu of Cash

General Recommendation: Vote case-by-case on plans that provide participants with the option of taking all or a portion of their cash compensation in the form of stock.

Vote for non-employee director-only equity plans that provide a dollar-for-dollar cash-for-stock exchange.

Vote case-by-case on plans which do not provide a dollar-for-dollar cash for stock exchange. In cases where the exchange is not dollar-for-dollar, the request for new or additional shares for such equity program will be considered using the binomial option pricing model. In an effort to capture the total cost of total compensation, ISS will not make any adjustments to carve out the in-lieu-of cash compensation.

Transfer Stock Option (TSO) Programs

General Recommendation: One-time Transfers: Vote against or withhold from compensation committee members if they fail to submit one-time transfers to shareholders for approval.

Vote case-by-case on one-time transfers. Vote for if:

- Executive officers and non-employee directors are excluded from participating;
- Stock options are purchased by third-party financial institutions at a discount to their fair value using option pricing models such as Black-Scholes or a Binomial Option Valuation or other appropriate financial models; and
- There is a two-year minimum holding period for sale proceeds (cash or stock) for all participants.

Additionally, management should provide a clear explanation of why options are being transferred to a third-party institution and whether the events leading up to a decline in stock price were beyond management's control. A review of the company's historic stock price volatility should indicate if the options are likely to be back "in-the-money" over the near term.

Ongoing TSO program: Vote against equity plan proposals if the details of ongoing TSO programs are not provided to shareholders. Since TSOs will be one of the award types under a stock plan, the ongoing TSO program, structure, and mechanics must be disclosed to shareholders. The specific criteria to be considered in evaluating these proposals include, but not limited, to the following:

- Eligibility;
- Vesting;

- Bid-price;
- Term of options;
- Cost of the program and impact of the TSOs on company's total option expense; and
- Option repricing policy.

Amendments to existing plans that allow for introduction of transferability of stock options should make clear that only options granted post-amendment shall be transferable.

Director Compensation

Shareholder Ratification of Director Pay Programs

General Recommendation: Vote case-by-case on management proposals seeking ratification of non-employee director compensation, based on the following factors:

- If the equity plan under which non-employee director grants are made is on the ballot, whether or not it warrants support; and
- An assessment of the following qualitative factors:
 - The relative magnitude of director compensation as compared to companies of a similar profile;
 - The presence of problematic pay practices relating to director compensation;
 - Director stock ownership guidelines and holding requirements;
 - Equity award vesting schedules;
 - The mix of cash and equity-based compensation;
 - Meaningful limits on director compensation;
 - The availability of retirement benefits or perquisites; and
 - The quality of disclosure surrounding director compensation.

Equity Plans for Non-Employee Directors

General Recommendation: Vote case-by-case on compensation plans for non-employee directors, based on:

- The total estimated cost of the company's equity plans relative to industry/market cap peers, measured by the company's estimated Shareholder Value Transfer (SVT) based on new shares requested plus shares remaining for future grants, plus outstanding unvested/unexercised grants;
- The company's three-year burn rate relative to its industry/market cap peers (in certain circumstances); and
- The presence of any egregious plan features (such as an option repricing provision or liberal CIC vesting risk).

On occasion, non-employee director stock plans will exceed the plan cost or burn-rate benchmarks when combined with employee or executive stock plans. In such cases, vote case-by-case on the plan taking into consideration the following qualitative factors:

- The relative magnitude of director compensation as compared to companies of a similar profile;
- The presence of problematic pay practices relating to director compensation;
- Director stock ownership guidelines and holding requirements;
- Equity award vesting schedules;
- The mix of cash and equity-based compensation;
- Meaningful limits on director compensation;
- The availability of retirement benefits or perquisites; and
- The quality of disclosure surrounding director compensation.

Non-Employee Director Retirement Plans

General Recommendation: Vote against retirement plans for non-employee directors. Vote for shareholder proposals to eliminate retirement plans for non-employee directors.

Shareholder Proposals on Compensation

Bonus Banking/Bonus Banking “Plus”

General Recommendation: Vote case-by-case on proposals seeking deferral of a portion of annual bonus pay, with ultimate payout linked to sustained results for the performance metrics on which the bonus was earned (whether for the named executive officers or a wider group of employees), taking into account the following factors:

- The company’s past practices regarding equity and cash compensation;
- Whether the company has a holding period or stock ownership requirements in place, such as a meaningful retention ratio (at least 50 percent for full tenure); and
- Whether the company has a rigorous claw-back policy in place.

Compensation Consultants—Disclosure of Board or Company’s Utilization

General Recommendation: Generally vote for shareholder proposals seeking disclosure regarding the company, board, or compensation committee’s use of compensation consultants, such as company name, business relationship(s), and fees paid.

Disclosure/Setting Levels or Types of Compensation for Executives and Directors

General Recommendation: Generally vote for shareholder proposals seeking additional disclosure of executive and director pay information, provided the information requested is relevant to shareholders’ needs, would not put the company at a competitive disadvantage relative to its industry, and is not unduly burdensome to the company.

Generally vote against shareholder proposals seeking to set absolute levels on compensation or otherwise dictate the amount or form of compensation (such as types of compensation elements or specific metrics) to be used for executive or directors.

Generally vote against shareholder proposals that mandate a minimum amount of stock that directors must own in order to qualify as a director or to remain on the board.

Vote case-by-case on all other shareholder proposals regarding executive and director pay, taking into account relevant factors, including but not limited to: company performance, pay level and design versus peers, history of compensation concerns or pay-for-performance disconnect, and/or the scope and prescriptive nature of the proposal.

Golden Coffins/Executive Death Benefits

General Recommendation: Generally vote for proposals calling for companies to adopt a policy of obtaining shareholder approval for any future agreements and corporate policies that could oblige the company to make payments or awards following the death of a senior executive in the form of unearned salary or bonuses, accelerated vesting or the continuation in force of unvested equity grants, perquisites and other payments or awards made in lieu of compensation. This would not apply to any benefit programs or equity plan proposals for which the broad-based employee population is eligible.

Hold Equity Past Retirement or for a Significant Period of Time

General Recommendation: Vote case-by-case on shareholder proposals asking companies to adopt policies requiring senior executive officers to retain a portion of net shares acquired through compensation plans. The following factors will be taken into account:

- The percentage/ratio of net shares required to be retained;
- The time period required to retain the shares;
- Whether the company has equity retention, holding period, and/or stock ownership requirements in place and the robustness of such requirements;
- Whether the company has any other policies aimed at mitigating risk taking by executives;
- Executives' actual stock ownership and the degree to which it meets or exceeds the proponent's suggested holding period/retention ratio or the company's existing requirements; and
- Problematic pay practices, current and past, which may demonstrate a short-term versus long-term focus.

Pay Disparity

General Recommendation: Vote case-by-case on proposals calling for an analysis of the pay disparity between corporate executives and other non-executive employees. The following factors will be considered:

- The company's current level of disclosure of its executive compensation setting process, including how the company considers pay disparity;
- If any problematic pay practices or pay-for-performance concerns have been identified at the company; and
- The level of shareholder support for the company's pay programs.

Generally vote against proposals calling for the company to use the pay disparity analysis or pay ratio in a specific way to set or limit executive pay.

Pay for Performance/Performance-Based Awards

General Recommendation: Vote case-by-case on shareholder proposals requesting that a significant amount of future long-term incentive compensation awarded to senior executives shall be performance-based and requesting that the board adopt and disclose challenging performance metrics to shareholders, based on the following analytical steps:

- First, vote for shareholder proposals advocating the use of performance-based equity awards, such as performance contingent options or restricted stock, indexed options, or premium-priced options, unless the proposal is overly restrictive or if the company has demonstrated that it is using a "substantial" portion of performance-based awards for its top executives. Standard stock options and performance-accelerated awards do not meet the criteria to be considered as performance-based awards. Further, premium-priced options should have a meaningful premium to be considered performance-based awards.

- Second, assess the rigor of the company's performance-based equity program. If the bar set for the performance-based program is too low based on the company's historical or peer group comparison, generally vote for the proposal. Furthermore, if target performance results in an above target payout, vote for the shareholder proposal due to program's poor design. If the company does not disclose the performance metric of the performance-based equity program, vote for the shareholder proposal regardless of the outcome of the first step to the test.

In general, vote for the shareholder proposal if the company does not meet both of the above two steps.

Pay for Superior Performance

General Recommendation: Vote case-by-case on shareholder proposals that request the board establish a pay-for-superior performance standard in the company's executive compensation plan for senior executives. These proposals generally include the following principles:

- Set compensation targets for the plan's annual and long-term incentive pay components at or below the peer group median;
- Deliver a majority of the plan's target long-term compensation through performance-vested, not simply time-vested, equity awards;
- Provide the strategic rationale and relative weightings of the financial and non-financial performance metrics or criteria used in the annual and performance-vested long-term incentive components of the plan;
- Establish performance targets for each plan financial metric relative to the performance of the company's peer companies;
- Limit payment under the annual and performance-vested long-term incentive components of the plan to when the company's performance on its selected financial performance metrics exceeds peer group median performance.

Consider the following factors in evaluating this proposal:

- What aspects of the company's annual and long-term equity incentive programs are performance driven?
- If the annual and long-term equity incentive programs are performance driven, are the performance criteria and hurdle rates disclosed to shareholders or are they benchmarked against a disclosed peer group?
- Can shareholders assess the correlation between pay and performance based on the current disclosure?
- What type of industry and stage of business cycle does the company belong to?

Pre-Arranged Trading Plans (10b5-1 Plans)

General Recommendation: Generally vote for shareholder proposals calling for the addition of certain safeguards in prearranged trading plans (10b5-1 plans) for executives. Safeguards may include:

- Adoption, amendment, or termination of a 10b5-1 Plan must be disclosed in a Form 8-K;
- Amendment or early termination of a 10b5-1 Plan allowed only under extraordinary circumstances, as determined by the board;
- Request that a certain number of days that must elapse between adoption or amendment of a 10b5-1 Plan and initial trading under the plan;
- Reports on Form 4 must identify transactions made pursuant to a 10b5-1 Plan;
- An executive may not trade in company stock outside the 10b5-1 Plan;
- Trades under a 10b5-1 Plan must be handled by a broker who does not handle other securities transactions for the executive.

Prohibit Outside CEOs from Serving on Compensation Committees

General Recommendation: Generally vote against proposals seeking a policy to prohibit any outside CEO from serving on a company's compensation committee, unless the company has demonstrated problematic pay practices that raise concerns about the performance and composition of the committee.

Recoupment of Incentive or Stock Compensation in Specified Circumstances

General Recommendation: Vote case-by-case on proposals to recoup incentive cash or stock compensation made to senior executives if it is later determined that the figures upon which incentive compensation is earned turn out to have been in error, or if the senior executive has breached company policy or has engaged in misconduct that may be significantly detrimental to the company's financial position or reputation, or if the senior executive failed to manage or monitor risks that subsequently led to significant financial or reputational harm to the company. Many companies have adopted policies that permit recoupment in cases where an executive's fraud, misconduct, or negligence significantly contributed to a restatement of financial results that led to the awarding of unearned incentive compensation. However, such policies may be narrow given that not all misconduct or negligence may result in significant financial restatements. Misconduct, negligence, or lack of sufficient oversight by senior executives may lead to significant financial loss or reputational damage that may have long-lasting impact.

In considering whether to support such shareholder proposals, ISS will take into consideration the following factors:

- If the company has adopted a formal recoupment policy;
- The rigor of the recoupment policy focusing on how and under what circumstances the company may recoup incentive or stock compensation;
- Whether the company has chronic restatement history or material financial problems;
- Whether the company's policy substantially addresses the concerns raised by the proponent;
- Disclosure of recoupment of incentive or stock compensation from senior executives or lack thereof; or
- Any other relevant factors.

Severance Agreements for Executives/Golden Parachutes

General Recommendation: Vote for shareholder proposals requiring that golden parachutes or executive severance agreements be submitted for shareholder ratification, unless the proposal requires shareholder approval *prior* to entering into employment contracts.

Vote case-by-case on proposals to ratify or cancel golden parachutes. An acceptable parachute should include, but is not limited to, the following:

- The triggering mechanism should be beyond the control of management;
- The amount should not exceed three times base amount (defined as the average annual taxable W-2 compensation during the five years prior to the year in which the change of control occurs);
- Change-in-control payments should be double-triggered, i.e., (1) after a change in control has taken place, and (2) termination of the executive as a result of the change in control. Change in control is defined as a change in the company ownership structure.

Share Buyback Impact on Incentive Program Metrics

General Recommendation: Vote case-by-case on proposals requesting the company exclude the impact of share buybacks from the calculation of incentive program metrics, considering the following factors:

- The frequency and timing of the company's share buybacks;
- The use of per-share metrics in incentive plans;
- The effect of recent buybacks on incentive metric results and payouts; and
- Whether there is any indication of metric result manipulation.

Supplemental Executive Retirement Plans (SERPs)

General Recommendation: Generally vote for shareholder proposals requesting to put extraordinary benefits contained in SERP agreements to a shareholder vote unless the company's executive pension plans do not contain excessive benefits beyond what is offered under employee-wide plans.

Generally vote for shareholder proposals requesting to limit the executive benefits provided under the company's supplemental executive retirement plan (SERP) by limiting covered compensation to a senior executive's annual salary or those pay elements covered for the general employee population.

Tax Gross-Up Proposals

General Recommendation: Generally vote for proposals calling for companies to adopt a policy of not providing tax gross-up payments to executives, except in situations where gross-ups are provided pursuant to a plan, policy, or arrangement applicable to management employees of the company, such as a relocation or expatriate tax equalization policy.

Termination of Employment Prior to Severance Payment/Eliminating Accelerated Vesting of Unvested Equity

General Recommendation: Vote case-by-case on shareholder proposals seeking a policy requiring termination of employment prior to severance payment and/or eliminating accelerated vesting of unvested equity.

The following factors will be considered:

- The company's current treatment of equity upon employment termination and/or in change-in-control situations (i.e., vesting is double triggered and/or pro rata, does it allow for the assumption of equity by acquiring company, the treatment of performance shares, etc.);
- Current employment agreements, including potential poor pay practices such as gross-ups embedded in those agreements.

Generally vote for proposals seeking a policy that prohibits automatic acceleration of the vesting of equity awards to senior executives upon a voluntary termination of employment or in the event of a change in control (except for pro rata vesting considering the time elapsed and attainment of any related performance goals between the award date and the change in control).

6. Routine/Miscellaneous

Adjourn Meeting

General Recommendation: Generally vote against proposals to provide management with the authority to adjourn an annual or special meeting absent compelling reasons to support the proposal.

Vote for proposals that relate specifically to soliciting votes for a merger or transaction if supporting that merger or transaction. Vote against proposals if the wording is too vague or if the proposal includes "other business."

Amend Quorum Requirements

General Recommendation: Vote case-by-case on proposals to reduce quorum requirements for shareholder meetings below a majority of the shares outstanding, taking into consideration:

- The new quorum threshold requested;
- The rationale presented for the reduction;
- The market capitalization of the company (size, inclusion in indices);
- The company's ownership structure;
- Previous voter turnout or attempts to achieve quorum;
- Any provisions or commitments to restore quorum to a majority of shares outstanding, should voter turnout improve sufficiently; and
- Other factors as appropriate.

In general, a quorum threshold kept as close to a majority of shares outstanding as is achievable is preferred.

Vote case-by-case on directors who unilaterally lower the quorum requirements below a majority of the shares outstanding, taking into consideration the factors listed above.

Amend Minor Bylaws

General Recommendation: Vote for bylaw or charter changes that are of a housekeeping nature (updates or corrections).

Change Company Name

General Recommendation: Vote for proposals to change the corporate name unless there is compelling evidence that the change would adversely impact shareholder value.

Change Date, Time, or Location of Annual Meeting

General Recommendation: Vote for management proposals to change the date, time, or location of the annual meeting unless the proposed change is unreasonable.

Vote against shareholder proposals to change the date, time, or location of the annual meeting unless the current scheduling or location is unreasonable.

Other Business

General Recommendation: Vote against proposals to approve other business when it appears as a voting item.

7. Environmental and Social Issues

Global Approach – E&S-related Proposals

Environmental and social proposals will be reviewed with a focus on how, and to what extent, the issues dealt with in such proposals will directly affect shareholder value, and with a presumption on environmental and social topics that the board's recommendations should generally prevail. In those circumstances where it is widely considered that greater disclosure will directly enhance or protect shareholder value and is reflective of a clearly established reporting standard in the market, the Global Board-Aligned Policy will generally recommend in support of such proposals (e.g. proposals requesting greater disclosure of a company's political contributions and/or trade association spending policies and activities). In the absence of a clear determination that environmental and social proposals will have a positive effect on shareholder value or there are proposals that seek information that exceeds a widely endorsed standard in the market or place any burden upon the company beyond a reasonable and clearly established reporting standard in the market, the Global Board-Aligned policy will generally recommend voting against such proposals, or in line with the board's recommendations if different.

Say on Climate (SoC) Management Proposals

General Recommendation: Generally vote with the board's recommendation on management proposals that request shareholders to approve the company's climate transition action plan.²²

Say on Climate (SoC) Shareholder Proposals

General Recommendation: Generally vote against shareholder proposals that request the company to disclose a report providing its GHG emissions levels and reduction targets and/or its upcoming/approved climate transition action plan and provide shareholders the opportunity to express approval or disapproval of its GHG emissions reduction plan.

²² Variations of this request also include climate transition related ambitions, or commitment to reporting on the implementation of a climate plan.

8. Mutual Fund Proxies

Election of Directors

General Recommendation: Vote case-by-case on the election of directors and trustees, following the same guidelines for uncontested directors for public company shareholder meetings. However, mutual fund boards do not usually have compensation committees, so do not withhold for the lack of this committee.

Closed End Funds- Unilateral Opt-In to Control Share Acquisition Statutes

General Recommendation: For closed-end management investment companies (CEFs), vote against or withhold from nominating/governance committee members (or other directors on a case-by-case basis) at CEFs that have not provided a compelling rationale for opting-in to a Control Share Acquisition statute, nor submitted a by-law amendment to a shareholder vote.

Converting Closed-end Fund to Open-end Fund

General Recommendation: Vote case-by-case on conversion proposals, considering the following factors:

- Past performance as a closed-end fund;
- Market in which the fund invests;
- Measures taken by the board to address the discount; and
- Past shareholder activism, board activity, and votes on related proposals.

Proxy Contests

General Recommendation: Vote case-by-case on proxy contests, considering the following factors:

- Past performance relative to its peers;
- Market in which the fund invests;
- Measures taken by the board to address the issues;
- Past shareholder activism, board activity, and votes on related proposals;
- Strategy of the incumbents versus the dissidents;
- Independence of directors;
- Experience and skills of director candidates;
- Governance profile of the company;
- Evidence of management entrenchment.

Investment Advisory Agreements

General Recommendation: Vote case-by-case on investment advisory agreements, considering the following factors:

- Proposed and current fee schedules;
- Fund category/investment objective;
- Performance benchmarks;
- Share price performance as compared with peers;
- Resulting fees relative to peers;
- Assignments (where the advisor undergoes a change of control).

Approving New Classes or Series of Shares

General Recommendation: Vote for the establishment of new classes or series of shares.

Preferred Stock Proposals

General Recommendation: Vote case-by-case on the authorization for or increase in preferred shares, considering the following factors:

- Stated specific financing purpose;
- Possible dilution for common shares;
- Whether the shares can be used for antitakeover purposes.

1940 Act Policies

General Recommendation: Vote case-by-case on policies under the Investment Advisor Act of 1940, considering the following factors:

- Potential competitiveness;
- Regulatory developments;
- Current and potential returns; and
- Current and potential risk.

Generally vote for these amendments as long as the proposed changes do not fundamentally alter the investment focus of the fund and do comply with the current SEC interpretation.

Changing a Fundamental Restriction to a Nonfundamental Restriction

General Recommendation: Vote case-by-case on proposals to change a fundamental restriction to a non-fundamental restriction, considering the following factors:

- The fund's target investments;
- The reasons given by the fund for the change; and
- The projected impact of the change on the portfolio.

Change Fundamental Investment Objective to Nonfundamental

General Recommendation: Vote against proposals to change a fund's fundamental investment objective to non-fundamental.

Name Change Proposals

General Recommendation: Vote case-by-case on name change proposals, considering the following factors:

- Political/economic changes in the target market;
- Consolidation in the target market; and
- Current asset composition.

Change in Fund's Subclassification

General Recommendation: Vote case-by-case on changes in a fund's sub-classification, considering the following factors:

- Potential competitiveness;
- Current and potential returns;
- Risk of concentration;
- Consolidation in target industry.

Business Development Companies—Authorization to Sell Shares of Common Stock at a Price below Net Asset Value

General Recommendation: Vote for proposals authorizing the board to issue shares below Net Asset Value (NAV) if:

- The proposal to allow share issuances below NAV has an expiration date no more than one year from the date shareholders approve the underlying proposal, as required under the Investment Company Act of 1940;
- The sale is deemed to be in the best interests of shareholders by (1) a majority of the company's independent directors and (2) a majority of the company's directors who have no financial interest in the issuance; and
- The company has demonstrated responsible past use of share issuances by either:
 - Outperforming peers in its 8-digit GICS group as measured by one- and three-year median TSRs; or
 - Providing disclosure that its past share issuances were priced at levels that resulted in only small or moderate discounts to NAV and economic dilution to existing non-participating shareholders.

Disposition of Assets/Termination/Liquidation

General Recommendation: Vote case-by-case on proposals to dispose of assets, to terminate or liquidate, considering the following factors:

- Strategies employed to salvage the company;
- The fund's past performance;
- The terms of the liquidation.

Changes to the Charter Document

General Recommendation: Vote case-by-case on changes to the charter document, considering the following factors:

- The degree of change implied by the proposal;
- The efficiencies that could result;
- The state of incorporation;
- Regulatory standards and implications.

Vote against any of the following changes:

- Removal of shareholder approval requirement to reorganize or terminate the trust or any of its series;
- Removal of shareholder approval requirement for amendments to the new declaration of trust;
- Removal of shareholder approval requirement to amend the fund's management contract, allowing the contract to be modified by the investment manager and the trust management, as permitted by the 1940 Act;

- Allow the trustees to impose other fees in addition to sales charges on investment in a fund, such as deferred sales charges and redemption fees that may be imposed upon redemption of a fund's shares;
- Removal of shareholder approval requirement to engage in and terminate subadvisory arrangements;
- Removal of shareholder approval requirement to change the domicile of the fund.

Changing the Domicile of a Fund

General Recommendation: Vote case-by-case on re-incorporations, considering the following factors:

- Regulations of both states;
- Required fundamental policies of both states;
- The increased flexibility available.

Authorizing the Board to Hire and Terminate Subadvisers Without Shareholder Approval

General Recommendation: Vote against proposals authorizing the board to hire or terminate subadvisers without shareholder approval if the investment adviser currently employs only one subadviser.

Distribution Agreements

General Recommendation: Vote case-by-case on distribution agreement proposals, considering the following factors:

- Fees charged to comparably sized funds with similar objectives;
- The proposed distributor's reputation and past performance;
- The competitiveness of the fund in the industry;
- The terms of the agreement.

Master-Feeder Structure

General Recommendation: Vote for the establishment of a master-feeder structure.

Mergers

General Recommendation: Vote case-by-case on merger proposals, considering the following factors:

- Resulting fee structure;
- Performance of both funds;
- Continuity of management personnel;
- Changes in corporate governance and their impact on shareholder rights.

Shareholder Proposals for Mutual Funds

Establish Director Ownership Requirement

General Recommendation: Generally vote against shareholder proposals that mandate a specific minimum amount of stock that directors must own in order to qualify as a director or to remain on the board.

Reimburse Shareholder for Expenses Incurred

General Recommendation: Vote case-by-case on shareholder proposals to reimburse proxy solicitation expenses. When supporting the dissidents, vote for the reimbursement of the proxy solicitation expenses.

Terminate the Investment Advisor

General Recommendation: Vote case-by-case on proposals to terminate the investment advisor, considering the following factors:

- Performance of the fund's Net Asset Value (NAV);
- The fund's history of shareholder relations;
- The performance of other funds under the advisor's management.

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EXHIBIT 3

Managers Not Using the ISS Proxy Voting Policy Selected by VRS

Defined Benefit Managers

Arrowstreet Global 130/30

Arisaig

Baillie Gifford Global

Baillie Gifford Emerging Markets

BlackRock GTAA

Jackson Square U.S. SMID

J.P. Morgan U.S. Market Neutral

Lansdowne Global Long Only

All hedge funds except for Advent

Defined Contribution Managers

Galliard Capital Management

J.P. Morgan

TIAA

Operational/Ongoing Activities	Status	2023						2024						
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Annual Roadmap Review	N/S													
FYE 2024	N/S													
Retirement Wave 2024	N/S													
Commonwealth Bond Disclosure	N/S													
ORPHE Surcharge Billing for FY 2024	N/S													
Data Fixes	●													
ALM Backlog Prioritization	●													
Employer VNAV Security Review	N/S													
VRS Fund Sensitivity and Stress Testing Report for GA	N/S													
Legislation FY 2024	N/S													

¹Initiatives led directly by Technology Services.

²Other initiatives are led by other business units and supported by Technology Services.

Yellow Status Items

Item	Due Date	Comments

Red Status Items

Item	Due Date	Comments
N/A		

Realignments/Adjustments

Item	Due Date	Comments
N/A		

Director's Report

November 16, 2023

Trish Bishop, VRS Director



New Employer Coverage

Coverage Elected	Details
Reclassification of Full-Time Hours for Bus Drivers, Bus Attendants and Cafeteria Worker Positions	Manassas City Public Schools Effective November 1, 2023



VRS received the 2023 Public Pension Standards Award for Funding and Administration from the Public Pension Coordinating Council (PPCC) for the 20th consecutive time.

PPCC is a coalition of three groups:

- National Association of State Retirement Administrators (NASRA)
- National Conference on Public Employee Retirement Systems (NCPERS)
- National Council on Teacher Retirement (NCTR).

Congratulations, Conor Shapiro!

VRS' own Conor Shapiro won the 2023 Annual Virginia State Employee Tennis Tournament, competing in the Advanced Singles division!

The final match was held at Byrd Park in Richmond, where Conor brought home the win, making VRS proud!



3rd Annual 2023 CVC 5K



October 28, 2023
Dorey Park, Henrico

- 20 participants
- \$900 raised for CVC



VRS Celebrates Diwali

November 14, 2023



Save the Date!

- **Wednesday, December 13**
- **8:30-11:30 a.m.**
- **Greater Richmond Convention Center**

Plan to attend this celebration of achievements and awards!
RSVP to LaShaunda by Nov. 17.

