Semi-Annual VRS Investment Report
July 2014

Profile: Virginia Retirement System Investments as of March 31, 2014

Market value of assets: $63.9 billion

Number of external managers
- Public Equity – 28 managers
- Credit Strategies – 26 managers
- Fixed Income – 0 managers
- Private Equity – 66 managers
- Real Assets – 35 managers
- Strategic Opportunities – 3 managers

Total return on investments

10 years	5 years	3 years	1 year
7.0%	13.7%	8.6%	11.7%

VRS custom benchmark

10 years	5 years	3 years	1 year
6.4%	12.9%	8.2%	11.6%

Number of VRS Investment Department Staff: 60 authorized FTEs (0 vacant)

FY 2013 External and Other Investment Expenses: $310.7 million (53.3 basis points of the total fund)

FY 2013 Investment Department Operating Expenses*: $21.2 million (3.6 basis points)

Investment policy indicators as of March 31, 2014

	Asset allocation	*Asset allocation (% of asset class)*		*Type of management (% of accounts)*	
Asset Class	**% of total assets**	**Domestic**	**Non-U.S.**	**External**	**Internal**
Public Equity**	43.8%	48.0%	52.0%	77.5%	22.5%
Fixed Income	18.7	100.0	0.0	0.0	100.0
Credit Strategies	17.8	78.0	22.0	100.0	0.0
Real Assets	10.3	83.0	17.0	98.0	2.0
Private Equity	7.9	81.9	18.1	99.4	0.6
Strategic Opportunities	0.6	80.0	20.0	100.0	0.0
Cash	0.9	n/a	n/a	100.0	0.0

*Includes allocated overhead expenses.

**Prior year external versus internal management of accounts based on percent of assets rather than percent of accounts.

Retirement, disability, and other related benefits are paid to retired or disabled members of the Virginia Retirement System (VRS) and their beneficiaries out of the VRS trust fund. As of March 31, 2014, the VRS trust fund held $63.9 billion in assets. For the one-year period from March 31, 2013 to March 31, 2014, the fund achieved a return of 11.7 percent and increased in value by $5.8 billion. External investment expenses in fiscal year 2013 of $310.7 million were $22.0 million greater than expenses for fiscal year 2012.

The investment performance of the total trust fund and its individual asset classes have largely outperformed the benchmarks adopted by VRS. The total fund's performance exceeded its benchmark in the fiscal-year-to-date, one-, three-, five-, and ten-year periods ending March 31, 2014. The public equity, fixed income, real assets, and private equity programs also outperformed their benchmarks for the ten-year period ending March 31, 2014.

VRS Investment Performance for Period Ending March 31, 2014

Program Performance objective	Fiscal year to date	1 year	3 years	5 years	10 years
Total Fund	11.6%	11.7%	8.6%	13.7%	7.0%
VRS Custom Benchmark	11.0	11.6	8.2	12.9	6.4
Total Public Equity	16.4	16.8	9.7	18.3	7.2
Benchmark	16.0	16.1	9.0	17.4	6.8
Total Investment-Grade Fixed Income	2.6	0.1	4.1	6.8	5.1
Benchmark	2.3	–0.1	3.9	4.6	4.6
Total Credit Strategies	8.8	8.5	6.9	14.1	n/a
Benchmark	7.8	6.5	6.3	11.8	n/a
Total Real Assets	10.4	12.4	12.2	11.0	9.3
Benchmark	8.9	10.9	11.5	8.9	9.0
Total Private Equity	17.5	22.2	15.1	14.0	14.7
Benchmark	17.2	31.1	17.3	20.3	10.0
Strategic Opportunities	1.2	3.1	n/a	n/a	n/a
Benchmark	1.6	1.7	n/a	n/a	n/a

Source: VRS investment department data, 2014.

Public Equity. The public equity program continues to be the largest VRS asset class, constituting 43.8 percent of the portfolio or $28.0 billion. This program consists of equity capital securities, such as stocks, which are invested in publicly traded companies. Public equity investments are typically higher risk investments relative to bonds that are expected to provide long-term capital growth and inflation protection. Both of these expectations assume a long-term horizon. VRS staff cautioned that the program may not perform as well as the public market overall in periods of substantial gains because the program has more exposure to higher quality, and therefore more stable, stocks than the market as a whole.

For the period ending March 31, 2014, the public equity program outperformed its benchmark for all periods, including the fiscal year to date. The public equity program achieved a one-year return of 16.8 percent, 70 basis points greater than its benchmark for that period. Over the ten-year period, the public equity program exceeded its benchmark by 40 basis points. Public equity is the only asset class with the majority of its investments in non-U.S. holdings. Slightly less than one-fourth of this program's accounts are managed internally.

Investment-Grade Fixed Income. The second largest VRS asset class, the fixed income program, accounts for $12.0 billion of the trust fund's assets, or 18.7 percent of the portfolio as of March 31, 2014. The fixed income program consists of securities that pay a specific interest rate, such as bonds and money market instruments. For the period ending March 31, 2014, the program outperformed its benchmark for all periods. All of the fixed income assets are invested in U.S. dollar denominated securities.

VRS has steadily increased the internal management of the fixed income portfolio, reaching 100 percent of accounts managed internally as of March 31, 2014. This compares to 97 percent of fixed income accounts managed internally as of March 31, 2013 and 49 percent of accounts managed internally as of March 31, 2012.

Credit Strategies. The third largest VRS asset class, the credit strategies program, held $11.4 billion in assets, or 17.8 percent of the total fund, as of March 31, 2014. The VRS credit strategies program includes investments in broad subcategories such as rate sensitive, non-rate sensitive, emerging market, and convertible bonds. According to VRS staff, credit strategies are expected to provide good risk-adjusted returns relative to traditional stock and bond investment options. The credit strategies program outperformed its established benchmark in all periods measured by VRS as of March 31, 2014. The majority of VRS's credit strategies (78 percent) are invested domestically, and all accounts are managed externally.

Real Assets. The total value of the VRS real assets portfolio as of March 31, 2014, was $6.6 billion, or 10.3 percent of the total fund.* The real assets program includes investments in real estate and infrastructure, as well as natural resources such as timber. This asset class outperformed its benchmark for all periods ending March 31, 2014. The majority of the real assets portfolio (83 percent) is invested domestically, and most accounts are managed externally.

Private Equity. As of March 31, 2014 private equity constituted 7.9 percent of the total fund, or $5.1 billion.* Private equity is an alternative to traditional public equity and consists of equity securities for companies that are not listed on the public exchange. Through active equity management, VRS expects to earn a meaningful return on its private equity investments. The private equity program earned higher returns than the public equity program in all but the five-year period ending March 31, 2014.

Other than the newly created strategic opportunities portfolio, private equity was the only program that did not outperform its benchmarks for all of the periods measured by VRS as of March 31, 2014. Specifically, the private equity program's

*Performance figures for the real assets and private equity programs do not reflect managers' actual valuations of these investments as of of March 31, 2014, because this data has not yet been made available to VRS. Instead, performance figures are based on valuations as of December 31, 2013, adjusted for cash flows during the quarter that ended March 31, 2014.

performance exceeded its benchmark in the fiscal-year-to-date and ten-year periods, but underperformed for the one-, three-, and five-year periods ending March 31, 2014. VRS investment staff indicated that private equity tends to lag its benchmark compared to public equity in strong public market periods. Most of VRS's private equity assets (81.9 percent) are invested domestically, and nearly all private equity assets are managed externally.

Strategic Opportunities. The strategic opportunities portfolio, created in 2012, represents investments that have a compelling potential for competitive returns but do not fit neatly into the five asset classes described above. As of March 31, 2014, the portfolio held $379 million in assets. Examples of individual investments in this portfolio are a global asset allocation hedge fund, a currency management investment, and a joint venture in commercial mortgages. The strategic opportunities portfolio has underperformed its benchmark by 40 basis points for the fiscal year to date but exceeded its benchmark for the one-year period as of March 31, 2014.

Board Modified Year Two of Phase-In to New Asset Allocation Policy

Starting in July 2014, VRS will begin the second year of a five-year phase-in to a new asset allocation policy for the trust fund. In 2013, the Board of Trustees ("board") adopted the new asset allocation policy following a review conducted by VRS, in conjunction with an outside consultant, of its long-term investment objectives, policies, and risk tolerance. The board determined that the new asset allocation policy should allow the VRS portfolio to achieve slightly higher returns at similar risk levels compared to the previous policy. The long-term rate of return expectation of seven percent remains unchanged with the new policy.

The new asset allocation policy reflects an increase in the proportion of assets allocated to private equity and real assets, and a decrease in the allocation to fixed

Modification to Year Two of Asset Allocation Phase-in Plan

Asset Class	Original Year Two allocation*	Modified Year Two allocation*	Full phase-in of plan*
Public equity	42.0%	42.0%	42.0%
Fixed income	18.0	18.5	15.0
Credit strategies	18.0	19.0	15.0
Real assets	11.5	11.5	15.0
Private equity	9.5	8.0	12.0
Strategic opportunities	0.0	0.0	0.0
Cash	1.0	1.0	1.0

*Allowable range of ± 5% for public equity, credit strategies, real assets, and private equity. Allowable range of –1% for fixed income, and –1% to +4% for cash.

Source: Board minutes from December 2012 and February 2013, and VRS investment department data, May 2014.

income and credit strategies. To achieve the new asset mix, the board approved annual targets to be phased in over five years. At the meetings of the Investment Advisory Committee (May 2014) and the Investment Policy Committee (June 2014),VRS staff indicated that they are unlikely to achieve the year-two goal of a 9.5 percent allocation to private equity. While VRS has increased its amount of commitment to private equity funds, the external managers have been cautious in making investments in what has become an expensive market environment for private equity. As a result, the board approved a modification to the year-two goal, which decreases the private equity allocation to 8.0 percent and increases the allocation to fixed income and credit strategies to 18.5 percent and 19.0 percent, respectively (see table). VRS staff indicated that the overall goal is still to reach the full phase-in of the new asset allocation policy in five years.

Board Discontinues Consideration of Project Frontier

In 2013, the board began consideration of a new initiative referred to as "Project Frontier," which would involve VRS offering investment services to outside entities. The purpose of Project Frontier would have been to generate fee revenue that could be used to offset VRS's operating expenses.

In June 2014, the board decided to discontinue consideration of Project Frontier based on market analysis conducted by a third party investment consultant. The market analysis showed that attracting the level of assets needed to make the venture worthwhile would be harder than initially expected and the related costs (such as marketing the service to potential customers) could be more expensive than initially assumed. As a result, according to VRS staff the return on investment could be less than originally expected.

Board Approved Changes to Fixed Income and REIT Benchmarks

The board approved modifications to the benchmarks for the fixed income and real assets portfolios. The modifications, which take effect on July 1, 2014, represent a change from the benchmarks adopted for these two programs in 2013 as a result of the risk tolerance study and an investment staff incentive compensation study. VRS investment staff indicated that the modifications are very small in terms of their impact on the risk/reward ratio for the benchmarks.

On the recommendation of VRS staff, the board approved changing the internal fixed income benchmark from the Citigroup BIG Index to the Barclay's Capital US Aggregate Index. According to VRS staff, the Barclay's index is recognized as the standard for fixed income benchmarking and accurately reflects the risk profile VRS is seeking for this program. Further, VRS staff found that Barclay's tools for accessing and analyzing data are more robust than Citigroup's; the cost for analysis tools are lower than Citigroup's; and Barclays provides superior index support and portfolio services compared to Citigroup.

The board also approved adjustments to the real estate investment trusts (REIT)* portion of the real assets custom benchmark. VRS staff recommended benchmarking the entire REIT portfolio against the global portion of the existing index and dropping the U.S. portion of the index. According to VRS staff, this change is consistent with

*A REIT is a corporation or trust company that accumulates a pool of capital used to buy, develop, manage, and sell real estate assets.

industry peers and with how the REIT portfolio has been invested in recent years. The new benchmark is simpler and more accurately reflects the REIT opportunity set. VRS staff also recommended, and the board approved, fixing the REIT portion of the real assets custom benchmark at 15 percent of the total real estate benchmark. According to VRS staff, this change facilitates monitoring the impact of staff allocation decisions between publicly-traded and privately-traded real estate. The change is consistent with the VRS trust fund's exposure to REITs in recent years, and the new benchmark falls within the range of industry peers.

Two New Members Appointed to VRS Board of Trustees

In the spring of 2014, two new members were appointed to the board, replacing outgoing members Collette Sheehy and Edwin T. Burton, III.

William Leighty was VRS director for seven years before serving as chief of staff to Governors Warner and Kaine. More recently, Leighty served as senior advisor to the Scottish Executive, advising the government on designing and implementing a national performance management system. He also conducted a performance review of the United Nations Joint Staff Pension Fund. Leighty was appointed by Governor McAuliffe.

Joseph Montgomery is a managing director for investments at Wells Fargo Advisors. He heads the Optimal Service Group, which specializes in advising high-net-worth individuals and institutions. Montgomery is a Certified Financial Planner, a Certified Portfolio Manager, and an Accredited Investment Fiduciary. Montgomery was appointed to the board by the General Assembly Joint Rules Committee.

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The report is published semi-annually by the Joint Legislative Audit and Review Commission in fulfillment of the Virginia Retirement System Oversight Act (Chapter 10 of Title 30 of the Code of Virginia). The statute requires JLARC to oversee and evaluate the Virginia Retirement System (VRS) and regularly update the legislature on oversight findings.

JLARC Staff Assigned to VRS Oversight

Kimberly A. Sarte, Assistant Director for Ongoing Oversight and Fiscal Analysis
Mark R. Gribbin, Principal Legislative Analyst for Ongoing Oversight and Fiscal Analysis

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