



**JOINT LEGISLATIVE AUDIT
& REVIEW COMMISSION**
OF THE VIRGINIA GENERAL ASSEMBLY

**VRS Semi-Annual Investment Report
December 2011**

The VRS trust fund had \$49.6 billion in assets as of September 30, 2011. For the one-year period between September 30, 2010 and September 30, 2011, the fund achieved a return of 1.9 percent, but decreased in value by \$1.2 billion due to payments out of the fund. As of September 30, 2011, the total fund’s performance exceeded established benchmarks in the ten-year, five-year, and fiscal year (FY) to date periods, but did not earn the assumed rate of return (currently seven percent) over any period. However, the fund did add value (130 basis points) over the long-term benchmark for the ten-year period. While VRS did not meet the assumed rate of return for the ten-year period, the annualized return from fiscal year 1989 is 8.6 percent. Additionally, while the investment performance for the quarter ending September 30, 2011 was negative, the trust fund’s FY 2011 return of 19.1 percent was one of its highest in the past 20 years. Performance indicators are provided in Table 1 (page 2).

| Profile: Virginia Retirement System Investments (as of September 30, 2011) | | | | | | |
|---|--|---------------|---|-----------------|---|------------|
| Market Value of Assets: \$49.6 billion | | | | | | |
| Number of External Managers: | | | | | | |
| Public Equity – 26 (14 traditional, 12 hedge funds) | | | | | | |
| Fixed Income – 13 | | | | | | |
| Number of External Investment Accounts/Mandates: | | | | | | |
| Public Equity – 30 (17 traditional, 13 hedge funds) | | | | | | |
| Fixed Income – 24 | | | | | | |
| Number of VRS Investment Department Staff: 57 authorized FTEs (9 vacant) | | | | | | |
| FY 2011 Investment Expenses: \$302.72 million (55.6 basis points) | | | | | | |
| FY 2011 Investment Department Operating Expenses: \$17.3 million* (3.2 basis points) | | | | | | |
| Investment Policy Indicators (as of September 30, 2011) | | | | | | |
| <u>Asset Class</u> | <u>Asset Allocation</u> (% of Total Assets) | | <u>Asset Allocation</u> (% of Asset Class) | | <u>Type of Management</u> (% of Asset Class) | |
| | <u>Policy</u> | <u>Actual</u> | <u>Domestic</u> | <u>Non-U.S.</u> | <u>External</u> | <u>VRS</u> |
| Public Equity | 43.9% | 43.9% | 47.2% | 52.8% | 64.0% | 36.0% |
| Fixed Income | 23.8% | 23.8% | 77.1% | 22.9% | 65.0% | 35.0% |
| Credit Strategies | 14.5% | 14.5% | 94.0% | 6.0% | 98.3% | 1.7% |
| Private Equity | 10.0% | 10.0% | 79.5% | 20.5% | 100.0% | 0.0% |
| Real Estate | 7.6% | 7.6% | 84.0% | 16.0% | 99.0% | 1.0% |
| Cash | 0.25% | 0.26% | n/a | n/a | 100.0% | 0.0% |
| *Includes allocated administrative expenses | | | | | | |

| Program/ Performance Objective | Fiscal Year to Date | 1 Year | 3 Years | 5 Years | 10 Years |
|---|--------------------------------|---------------|----------------|----------------|-----------------|
| <i>Total Fund</i> | -7.6 | 1.9 | 3.3 | 1.8 | 5.8 |
| Total Fund Benchmark - Intermediate | -8.6 | 2.0 | 3.3 | 1.6 | 5.5 |
| Total Fund Benchmark - Long Term | -7.9 | 2.7 | 3.8 | 1.7 | 4.5 |
| <i>Total Public Equity</i> | -15.5 | -4.5 | 1.9 | -1.0 | 4.8 |
| Public Equity Custom Benchmark | -17.0 | -5.9 | 1.2 | -1.2 | 4.6 |
| <i>Total Fixed Income</i> | 2.3 | 4.8 | 9.7 | 7.0 | 6.0 |
| Fixed Income Custom Benchmark | 3.1 | 4.6 | 7.8 | 6.6 | 5.7 |
| <i>Total Credit Strategies</i> | -6.9 | 0.9 | 9.0 | 4.7 | n/a |
| VRS Credit Strategies Custom Benchmark | -7.5 | 0.1 | 10.0 | 4.3 | n/a |
| <i>Total Real Estate</i> | 0.0 | 14.6 | -2.7 | 1.7 | 8.9 |
| Real Estate Custom Benchmark | 0.4 | 13.3 | -1.9 | 2.5 | 8.5 |
| <i>Total Private Equity</i> | 4.0 | 19.9 | 4.0 | 10.4 | 10.7 |
| Private Equity Custom Benchmark | 0.3 | 34.9 | 6.6 | 5.9 | 6.0 |

Source: VRS investment department data.

Public Equity. The public equity program continues to be VRS' largest asset class, constituting 43.9 percent of the portfolio or \$21.8 billion. Public equity investments are typically higher risk investments that are expected to provide long-term capital growth and inflation protection. Both of these expectations assume a long-term time horizon. Public equity is the only asset class with more than half of its investments in non-U.S. holdings.

The public equity program continues to recover from its FY 2009 losses. The public equity program earned a return of 27.2 percent in FY 2011 – a higher return than any of the other asset classes in the VRS portfolio. However, due to market declines amounting to -15.5 percent for the quarter ending on September 30, 2011, the program has experienced a one-year return of -4.5 percent.

Despite negative returns in recent months, the program's strong performance for the whole of FY 2011 has resulted in it outperforming established benchmarks in all periods. This is noteworthy because VRS staff have cautioned that the program may not perform as well as the overall public markets in periods of substantial gains because the program has more exposure to higher quality stocks than the market as a whole and has a lower risk profile than its benchmark.

Fixed Income. The fixed income program serves as a diversifier for the overall portfolio. As of September 30, 2011, the program constituted 23.8 percent of the portfolio or \$11.8 billion. The fixed income program exceeded its benchmark for the one-, three-, five-, and ten-year periods, but underperformed for the quarter ending September 30, 2011. Recently, VRS has concentrated on moving more of its assets into the internally managed portfolio. Most (77.1 percent) of the fixed income assets are domestically invested.

Credit Strategies. In the current VRS portfolio, credit strategies are used opportunistically whenever they are expected to provide good risk-adjusted returns relative to traditional stock and bond investment options available to the plan. Benefits of this asset class include further diversification and increased cash flows, as well as lower volatility compared to equities. VRS credit strategies include investments in areas such as public high-yield debt, private debt, convertible bonds, bank loans, and high-yield asset-backed securities.

According to VRS, the program has been a successful strategy in that it has outperformed both stocks and bonds. Through this program, VRS can earn long-term returns comparable to equity investments, but with lower market risk.

As of September 30, 2011, the program had \$7.2 billion in assets and represented 14.5 percent of the total fund. The credit strategies program slightly exceeded established benchmarks in all periods but the three-year period. Almost all (94 percent) of VRS' credit strategies are domestically invested.

Real Estate/Real Assets. This year, VRS officially changed the name of the Real Estate Program to the Real Assets Program, reflecting the fact that the staff have been focused on potential investments in timberland, infrastructure, and farmland, in addition to commercial real estate, for the past several years. In March 2011, the investment department made its first commitment to a timberland strategy.

The total value of the VRS real assets portfolio as of September 30, 2011, was \$3.7 billion or 7.6 percent of the total fund.* This asset class slightly outperformed its benchmark in all but the three- and five-year periods. The majority (84.0 percent) of the real estate portfolio is invested in U.S. holdings.

Private Equity. Private equity is an alternative to traditional public equity. Through active equity management, VRS expects to earn a meaningful return premium on its private equity investments.

As of September 30, 2011, private equity represented ten percent of the total fund or \$4.9 billion.* The private equity program far exceeded established benchmarks for the five- and ten-year periods ending September 30, 2011.

While achieving a positive return of 19.9 percent, the program underperformed its benchmark in the one-year period by 15 percent, or 1,500 basis points. According to VRS, this underperformance relative to the benchmark is due to the caution that private equity fund managers have exhibited in marking up the value of their assets. This is also due to the fact that the program's benchmark is composed of public equity holdings, and substantial gains in the public markets are typically not reflected in the private markets in either their timing or extent. According to VRS, the degree of the private equity program's underperformance in the one-year period contributed to the total fund's 80 basis point underperformance in this period. Still, cash flow into the trust funds due to the private equity program exceeded \$1 billion in FY 2011.

Over the long term, VRS staff expect the program to outperform its benchmark and continue to earn a premium over the public equity program. As of September 30, 2011, the private equity program has earned higher returns than the public equity program in every period. Notably, the dollar-weighted annualized performance since the inception of the program in April 1989 through June 30, 2011, was 22.11 percent.

Hedge Funds. VRS considers hedge funds active investment strategies that can be used within any of the investment programs, subject to a total policy limit currently set by the VRS Board of Trustees ("the board") at ten percent. VRS staff

* Whereas performance figures for the real estate and private equity programs reflect data on cash flow into the program as of September 30, 2011, they do not reflect managers' actual valuations of these investments as of that date because these data have not yet been made available to VRS. Instead, their performance is based on June 30, 2011 valuations, adjusted for cash flows during the quarter ended September 30, 2011.

report that assets in its hedge funds continue to perform well and that the strategic use of hedge funds has been successful. In total, hedge fund investments constituted \$4.5 billion or 9.1 percent of the total portfolio as of September 30, 2011. Most of the hedge fund managers are public equity managers, but there are also hedge fund managers in the credit strategies and fixed income programs.

Board Appoints New Chief Investment Officer

On September 1, 2010, VRS announced that its Chief Investment Officer (CIO) would not seek reappointment by the board after the expiration of his contract in August 2011. Following a year-long search, the board announced at its September 2011 meeting the appointment of Ronald D. Schmitz as the new CIO. Prior to his appointment to VRS, Mr. Schmitz served in CIO positions for the Oregon Public Employees Retirement System and the Illinois State Board of Investment. Mr. Schmitz also held positions in the private sector at Sears, Kraft Foods, and Blue Cross and Blue Shield. As CIO at VRS, Mr. Schmitz will oversee the investment activities of the fund and the 47 full-time investment department employees. Mr. Schmitz's annual base salary is set at \$375,000. Mr. Schmitz will be paid \$110,000 as a sign-on bonus and will be eligible for incentive pay targeted at 70 percent of his base salary.

At its November 2011 meeting, the board created a "Program Director of Strategic Initiatives" position, which is similar to the Deputy CIO position that VRS has had in the past. The former VRS CIO will serve in this position. The salary range is \$256,000 to \$384,000 with the opportunity for incentive pay targeted at 65 percent of the base salary. According to VRS, "the proposed salary range for the position...corresponds to the recommendation of...the VRS compensation consultant for investment professionals." According to VRS, "the position has responsibility for handling focused and high level investment related projects at the direction of the CIO. The objective is to provide the CIO with comprehensive support on important high-level projects that can potentially result in benefits for the fund."

Board Certifies Contribution Rates for FY 2013-2014 Biennium

Every two years, the VRS actuary calculates the assets and liabilities of each VRS pension plan. The Board of Trustees bases its recommendations for employer contribution rates from the State and political subdivisions on this biennial analysis. The employer contribution rate is the amount the actuary has projected will need to be contributed in order to move the plans toward full funding.

In October and November, the VRS consulting actuary presented its actuarial valuations of all VRS plans. For each of the State plans and the teachers' plan, Table 2 shows (1) the funded status as of June 30, 2011, and (2) the recommended employer contribution rate for the next biennial budget cycle. These contribution rates represent the cost of these plans to the State, which have increased by an average of 30 percent between 2009 and 2011. The State employees' plan rates experienced the greatest increase (54 percent) over this time period. The rates recommended by the actuary for the State employees' and teachers' plans for the 2013-2014 biennium are more than double what the State budgeted for contributions to those plans for the first three quarters of FY 2012.

Not shown in the table are the results of the valuations of each of the 579 political subdivisions participating in VRS. The employer contribution rates for these plans increased by 2.6 percentage points on average between 2009 and 2011. However, it is important to note that rates vary across localities based on their experience.

Between one and three percent of the 2011 recommended contribution rates for the State-supported plans (Table 2) are attributable to the requirement adopted by the General Assembly in 2011 that the State pay back approximately \$1.1 billion in general and non-general funds that were promised but not paid into the five State-supported plans in FY 2010. This amount is to be paid back to the trust fund over a period of ten years at a seven percent interest rate, which is the rate of return assumed by the VRS actuary in calculating the plans' assets and liabilities.

| | Board-Certified Contribution Rates 2011-2012 | Funded Rates 2011-2012 | Funded Status 6/30/2009 | Board-Certified Contribution Rates 2013-2014 | Funded Status 6/30/2011 |
|------------------------------|---|---------------------------------------|--|---|--|
| <i>State Employees</i> | 8.46% | 2.13% | 84.0% | 13.07% | 70.6% |
| <i>Teachers</i> | 12.91 | 3.93 | 76.1 | 16.77 | 66.6 |
| <i>State Police (SPORS)</i> | 25.56 | 7.76 | 73.6 | 32.62 | 62.6 |
| <i>Judges (JRS)</i> | 46.79 | 28.81 | 72.5 | 54.11 | 65.2 |
| <i>Law Officers (VaLORS)</i> | 15.93 | 5.12 | 64.7 | 19.52 | 55.0 |

Source: Cavanaugh Macdonald 2009 and 2011 actuarial valuations of the defined benefit retirement plans for the State employees' and teachers' plans, the State Police Officers Retirement System, the Virginia Law Officers Retirement System, and the Judicial Retirement System.

The rates certified by the board for the State and the local plans were calculated using revised assumptions for the expected earnings rate on the trust fund and the amortization period of the funds' liabilities. First, in 2010, the board approved a reduction in the expected rate of return on the funds' assets to seven percent from 7.5 percent. According to the former CIO, the VRS investment department is "expecting a sustained period of deleveraging and slower than normal growth, along with a continuation of the periodic bouts of high market volatility." This expectation, coupled with the fact that "cash flow and liquidity requirements are expected to increase in the years ahead coincident with an increase in retirees," led the board to reduce the assumed rate of return.

The increase in the actuary's recommended rates for the 2013-2014 biennium is partially due to this assumption change, because it means the VRS board expects that, in the future, less revenue into the trust funds will be generated by investment earnings. In order to mitigate the impact of this change, however, the board approved a method to phase in the lower assumed rate of return. The board approved

an increase in the amortization period for the funds' liabilities to 30 years from 20 years. The amortization period will decrease by one year each year until it reaches 20 years, at which point the amortization period will remain 20 years. Increasing the amortization period lengthens the time over which the fund's liabilities must be paid, and a longer amortization period results in somewhat lower necessary payments. The board approved for this method to be applied to the calculation of contribution rates for all of the State and local defined benefit plans. According to VRS, this practice falls within generally accepted actuarial standards. It is also consistent with the *Code of Virginia* requirement (§51.1-145A) that "annual employer contributions shall be determined in a manner so as to remain relatively level from year to year."

The 2011 valuation is the first valuation that includes the defined benefit plan modifications made in 2010 which resulted in slightly lower benefits for employees hired on or after July 1, 2010. According to the VRS actuary's analysis, for the State plans, these changes will decrease costs by an average of 0.036 percent of payroll for FY 2013 and by an average of 0.35 percent for FY 2014.

Funded Ratios Decrease for All Plans

VRS has generally been considered by actuaries to be a financially sound system. The aggregate ratio of assets to liabilities when summed across all State-supported plans has been at or above 80 percent in ten of the past 17 years. Projections of future funded status indicate that funded ratios are expected to continue to decline in the near term, due largely to the impact of the investment losses experienced in 2008 and 2009, which will be directly factored into the plans' costs through 2013. In 2009, the State employees' and teachers' VRS plans were funded at 84 percent and 76 percent, respectively. Based on the 2010 actuarial valuation of the VRS plans, this had declined to 75 percent for the State employees' plan and 69 percent for the teachers' plan.

The 2011 actuarial valuation showed that the plans' funded status had further declined to 70.6 percent and 66.6 percent, respectively. (The aggregate funded status of the political subdivision plans also decreased, from 85.1 percent in 2009 to 76.3 percent in 2011.) A comparison of the two most recent valuations shows that from 2009 to 2011 the gap between the VRS liabilities and the assets on hand to pay for them for each of the State plans and the teachers' plan increased by 69 percent from \$11.8 billion to \$19.9 billion.

The 2011 actuarial valuation of the VRS defined benefit plans attributes most of the declines in funded status to actuarial losses that resulted from (1) \$1.6 billion in employer contributions paid at rates below those required by the actuary, and (2) \$1.7 billion in underperformance of investments relative to the rates of return assumed by the actuary since the market decline in 2008 and 2009.

While investment performance in 2010 and 2011 exceeded the actuary's assumed rate of return, investment losses experienced in 2008 and 2009 must still be factored into the plans' valuation. Because VRS uses the generally accepted actuarial practice of "smoothing," a portion of the -4.4 percent asset value decline experienced in FY 2008 and -21.1 percent asset value decline experienced in FY 2009 were recognized in the 2011 valuation. The 2013 valuation is the last year that these substantial losses will be factored into determining the plans' liabilities.

The combined investment losses experienced in 2008 and 2009 were substantial, but the underperformance was due largely to the economic recession. The performance of the VRS trust funds during this period was similar to that of other pension plan trust funds nationwide. Since 2009, the VRS trust funds have nearly recovered from the losses experienced during the recession.

Board Approves Agency Budget for 2013-2014 Biennium

At its September 2011 meeting, the VRS Board of Trustees approved adjustments to its baseline budget for the 2013-2014 biennium, which will be submitted to the Governor. The adjustments totaled 17.1 and 16 percent over the baseline budget for fiscal years 2013 and 2014, respectively.

Approximately three-quarters of the additional funding requested would be spent on initiatives within the investment department. Such initiatives include fully funding vacant positions, salary upgrades to “move towards the Investment Pay Plan salary goal of paying employees in the 75th percentile of an appropriate peer group of public fund salaries,” and the addition of six positions to increase the investment department’s capability to manage more funds internally and to operate more efficiently. In total, the VRS budget is \$63.4 million for FY 2013 and \$62.8 million for FY 2014.

Board Forms Investment Policy Committee

At its November 2011 meeting, the board created a fifth committee – an Investment Policy Committee. The purpose of the committee is to better inform the board’s actions with regard to investment policies and guidelines. Consensus was reached between the board and the investment department staff that the current meeting schedule for the full board does not allow adequate attention to these issues, although decisions related to investment policy are among the most important made by the board. The stated responsibilities of the committee are to make recommendations to the board in the following areas:

- the overall risk tolerance that is acceptable for the fund,
- the establishment of a single long-term policy benchmark against which to compare the fund’s performance, and
- writing and revising as necessary the investment policy statements for the fund.

The committee will meet as needed and will work with the Investment Advisory Committee and the VRS staff to develop recommendations to the board. Membership on the committee will be open to all board members.

Board Approves External Investment Manager Referral Policy

At its November 2011 meeting, the VRS board approved the implementation of a new policy related to referrals of investment managers by external parties. Under the policy, any referrals of investment managers to the VRS investment department from an elected State official or a Cabinet-level Secretary must be documented and reported to the board quarterly. Under the policy, the person making the referral would have to be notified in writing of the policy. According to VRS, there has been an increase in such referrals to the VRS investment department and the policy will

“provide transparency to all parties involved in any referrals of external investment managers.”

VRS Executes Iran Engagement Policy

In February 2009, the Chairman of the House Appropriations Committee requested that the Board of Trustees consider “some form of action to properly reflect Virginians’ concern for the threat posed by [Iran].” The board responded by developing a policy to scrutinize companies that hold VRS assets and that are conducting business with Iran. According to the policy, a company will be targeted for scrutiny if it (1) has made an investment of \$20 million or more in Iran’s oil and natural gas sector, (2) actively conducts business activities subject or liable to sanctions under the Iran Sanctions Act of 1996, and (3) has business activities that directly or significantly contribute to the enhancement of Iran’s ability to develop its petroleum resources. As long as VRS holds direct investments in securities issued by the company valued at 0.1 percent of the total fund, VRS will communicate to these companies Virginia’s objections to Iran’s geopolitical actions.

One such company – Royal Dutch Shell – had holdings exceeding the 0.1 percent total fund threshold. VRS requested that its investment managers who were holding assets in Royal Dutch Shell make a case for these investments and identify any risks associated with them. The managers contacted by VRS staff were Acadian, AllianceBernstein, Arrowstreet, and BlackRock.

Each company, including Royal Dutch Shell, provided a written response to VRS. Royal Dutch Shell responded that it and its subsidiaries have “ceased all sanctionable activities as defined under the Comprehensive Iran Sanctions, Accountability, and Divestment Act.” As of June 30, 2011, Royal Dutch Shell no longer appeared on the list of scrutinized companies.

VRS Recognized With Award of Distinction for Member Profile

In September 2011, VRS received a Special Award of Distinction from the National Association of Government Defined Contribution Administrators for an online tool that can be used by members to project their assets at retirement. The Member Benefit Profile Retirement Income Gap Analysis compares VRS members’ projected retirement income to 80 percent of their salary. (Eighty percent of pre-retirement salary is often used as a benchmark for determining adequate income in retirement.) The projection includes the VRS pension benefit, Social Security benefits, and an estimated annuity from the member’s deferred compensation plan assets. The tool also provides tips to members on how to close the gap between their projected assets and the targeted retirement income.

Two Members Reappointed to the Investment Advisory Committee

The Board of Trustees reappointed two members of the VRS Investment Advisory Committee for two-year terms. These members are Gregory Fairchild and Hance West.

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