OVERSIGHT VRS Report

JOINT LEGISLATIVE AUDIT & REVIEW COMMISSION
OF THE VIRGINIA GENERAL ASSEMBLY

Semi-Annual Investment Report July 2013

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, 2013, the VRS trust fund held $58.1 billion in assets. For the one-year period from March 31, 2012 to March 31, 2013, the fund achieved a return of 10.2 percent and increased in value by $3.9 billion. The fund's performance fell short of its long-term benchmark in all timespans but the ten-year period ending March 31, 2013. The fund exceeded its intermediate term benchmark – which is more reflective of the types of investments held by VRS – in the three- and ten-year periods. Additional performance indicators are provided in Table 1 (page 2). The fixed income, real assets, and credit strategies programs all outperformed their benchmarks for the one-year period ending March 31, 2013. Over the ten-year period, all of the asset classes either met or exceeded their benchmarks. Additionally, investment expenses in fiscal year 2012 of $288.69 million were $14 million less than expenses for fiscal year 2011.

Profile: Virginia Retirement System Investments (as of March 31, 2013)

Market Value of Assets: $58.1 billion

Number of External Managers:

- Public Equity – 27 managers
- Credit Strategies – 25 managers
- Fixed Income – 2 managers
- Private Equity – 67 managers
- Real Assets – 29 managers

Total Return on Investments			
10 years	*5 years*	*3 years*	*1 year*
8.7%	**3.8%**	**9.0%**	**10.2%**
Performance/Intermediate Benchmark			
8.5%	**4.0%**	**8.8%**	**10.4%**
Performance/Long-Term Benchmark			
7.8%	**5.8%**	**9.7%**	**10.3%**

Number of VRS Investment Department Staff: 60 authorized FTEs (3 vacant)

FY2012 Investment Expenses: $288.69 million (54.4 basis points)

FY2012 Investment Department Operating Expenses: $17.3 million* (3.3 basis points)

Investment Policy Indicators (as of March 31, 2013)

	Asset Allocation	*Asset Allocation* (% of Asset Class)		*Type of Management* (% of Accounts)	
Asset Class	Percent of Total Assets	Domestic	Non-U.S.	External	VRS
Public Equity	**44.7%**	**47.5%**	**52.5%**	**66.0%**	**34.0%**
Credit Strategies	**18.6%**	**77.0%**	**23.0%**	**99.0%**	**1.0%**
Fixed Income	**18.4%**	**100.0%**	**0.0%**	**3.0%**	**97.0%**
Private Equity	**8.3%**	**82.0%**	**18.0%**	**100.0%**	**0.0%**
Real Assets	**9.1%**	**87.0%**	**13.0%**	**99.0%**	**1.0%**
Cash	**0.51%**	**n/a**	**n/a**	**100.0%**	**0.0%**

***Includes administrative expenses.**

Table 1
VRS Investment Performance for Period Ending March 31, 2013

Program Performance Objective	Fiscal Year to Date	1 Year	3 Years	5 Years	10 Years
Total Fund	*11.7%*	*10.2%*	*9.0%*	*3.8%*	*8.7%*
Total Fund Benchmark - Intermediate	11.2	10.4	8.8	4.0	8.5
Total Fund Benchmark - Long Term	11.4	10.3	9.7	5.8	7.8
Total Public Equity	*18.3*	*12.4*	*8.8*	*3.3*	*9.5*
Public Equity Custom Benchmark	18.6	12.5	8.5	3.6	9.5
Total Credit Strategies	*10.8*	*10.5*	*8.5*	*7.7*	*n/a*
VRS Credit Strategies Custom Benchmark	9.0	9.3	9.2	7.8	n/a
Total Investment-Grade Fixed Income	*2.4*	*4.3*	*6.7*	*6.7*	*5.7*
Fixed Income Custom Benchmark	1.7	3.9	5.6	5.6	5.1
Total Real Assets	*8.8*	*12.2*	*14.8*	*1.5*	*9.9*
Real Assets Custom Benchmark	8.3	11.0	12.8	2.6	9.7
Total Private Equity	*7.4*	*13.3*	*12.9*	*4.7*	*14.7*
Private Equity Custom Benchmark	4.7	18.9	13.7	4.6	10.2

Source: VRS investment department data, 2013.

Public Equity. 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. 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. The public equity program continues to be the largest VRS asset class, constituting 44.7 percent of the portfolio or $26 billion. Public equity is the only asset class with the majority of its investments in non-U.S. holdings. For the period ending March 31, 2013, the public equity program's performance relative to its benchmark has been mixed. The public equity program did not meet its benchmark for the one- and five-year periods. However, the program exceeded its benchmark by 30 basis points for the three-year period and met its benchmark of 9.5 percent earnings for the ten-year period.

Credit Strategies. Credit strategies is the second largest VRS asset class and held $10.8 billion in assets, or 18.6 percent of the total fund, as of March 31, 2013. The VRS credit strategies program includes investments in broad sub-categories such as rate sensitive, non-rate sensitive, emerging market, and convertible bonds. According to VRS staff, 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. Approximately three-quarters of VRS's credit strategies are invested domestically. The credit strategies program outperformed its established benchmark in the one-year and fiscal-year-to-date periods as of March 31, 2013, but underperformed its benchmark in the three- and five-year periods.

Investment-Grade Fixed Income. The fixed income program is the third largest VRS asset class, accounting for $10.7 billion of the trust fund's assets, or 18.4 percent of the portfolio as of March 31, 2013. The fixed income program serves as a diversifier for the overall portfolio. All of the fixed income assets are invested domestically. For the period ending March 31, 2013, the fixed income program consistently outperformed its benchmark. The program exceeded its benchmark in the one-, three-, five-, and ten-year periods, as well as the fiscal-year-to-date period.

VRS has continued to move more of its assets into the internally managed portfolio. Internal accounts currently represent 97 percent of the fixed income program, compared to 49 percent as of March 31, 2012.

Real Assets. The total value of the VRS real assets portfolio as of March 31, 2013, was $5.3 billion, or 9.1 percent of the total fund.* The majority (87 percent) of the real assets portfolio is invested domestically. This asset class outperformed its benchmark in all but the five-year period ending March 31, 2013.

Private Equity. As of March 31, 2013, private equity constituted 8.3 percent of the total fund, or $4.8 billion.* Private equity is an alternative to traditional public equity. Through active equity management, VRS expects to earn a meaningful return on its private equity investments. Most (82 percent) of VRS's private equity assets are invested domestically, and all private equity assets are managed externally.

For the period ending March 31, 2013, the private equity program had mixed performance, but outperformed the fund's public equity program. Specifically, the private equity program's performance exceeded its benchmark in the five- and ten-year periods, but underperformed for the one- and three-year periods ending March 31, 2013. The private equity program earned higher returns than the public equity program in the one-, three-, five-, and ten-year periods.

Board Concludes Review of Asset Allocation Policies and Risk Tolerance and Establishes Single Benchmark for Measuring Investment Performance

In December 2012, VRS concluded a yearlong review of its long-term investment objectives, investment policies, and risk tolerance. As reported in JLARC's December 2012 *Biennial VRS Status and Semi-Annual Investment Report*, according to VRS staff, the economic conditions and financial market volatility of the last several years have caused many institutional investors to rethink their approach to investing. A new committee, the Investment Policy Committee (IPC), was formed by the VRS Board of Trustees ("board") to discuss the risk tolerance, investment policy benchmarks, and approach to measuring the fund's success against the policy benchmarks of the board.

At the conclusion of the review, the board approved a new long-term asset allocation policy for its investments. The new asset mix will be phased in over a five-year period. Once fully phased in, the new mix will reflect a decrease in the proportion of assets allocated toward fixed income and credit strategies and increases in private equity and real assets. The mix includes the following allocation policy targets, with each one being assigned an allowable range:

- Global public equity: 42 percent (range of ±5 percent)
- Fixed income: 15 percent (range of up to +5 percent)
- Credit strategies: 15 percent (range of ±5 percent)
- Real Assets: 15 percent (range of ±5 percent)
- Private Equity: 12 percent (range of ±5 percent)
- Cash: 1 percent (range of −1 to +4 percent)

*Whereas performance figures for the real assets and private equity programs reflect data on cash flow into the program as of March 31, 2013, 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 December 31, 2012 valuations, adjusted for cash flows during the quarter ended March 31, 2013.

The new asset allocation policy establishes a risk profile for the fund that is consistent with a 65/35 stocks-to-bonds ratio in a two-asset-class framework. It involves greater risk than the previous 60/40 ratio, but lower risk than the 70/30 ratio that was in effect prior to 2010. The IPC determined that this new asset allocation policy could result in occasional periods where the markets generate significant losses, but that it will allow the VRS staff to be more opportunistic in positive market environments. While the asset allocation policy reflects a higher allocation to equity investments than the previous policy, the long-term rate of return expectation of seven percent has not changed. The board and VRS staff believe, however, that under the former asset allocation the seven percent assumption was unlikely to have been achieved over the long term.

As part of this effort, the board also adopted a single five-class policy benchmark structure, effective July 1, 2013. The single benchmark will consist of global public equity, fixed income, credit strategies, real assets, and private equity asset classes. It will reflect the board's tolerance for investment risk and the target proportion of the total fund to be held in each asset class. It will also provide the board and other VRS constituencies with a single tool for measuring the success of the board's investment policy as well as the investment staff's performance.

Board of Trustees Now Required to Report Performance of the Internal Investment Program Annually to the Governor and General Assembly

A provision in the 2013 Appropriation Act requires the board to report on the performance of its internally managed investments. The new provision states:

> "By September 30 of each year, the VRS Board of Trustees shall report to the Governor and the Chairmen of the House Appropriations and Senate Finance Committees on the prior fiscal year's results obtained by the internal investment management program. The report shall include a comparison of investment performance against the board's benchmarks and an estimate of the program's fee savings when compared to similar assets managed externally."

As noted in JLARC's December 2012 *Biennial VRS Status and Semi-Annual Investment Report*, VRS has used internal investment staff to manage a portion of its assets for more than ten years. VRS has further internalized its asset management in recent years, and $20.4 billion in investments, 35 percent of the total fund, are currently managed internally. According to VRS staff, the performance of these investments compares favorably to those managed externally. As of March 2013, this shift toward increased internal management has produced an estimated annual fee savings, net of internal costs, of approximately $11 million.

According to VRS staff, increasing the amount of assets under internal management produces several benefits in addition to reduced management fees. Benefits include an improved ability to control investment risks and develop new investment strategies.

Board of Trustees Develops New Policy for Awarding Incentive Pay to VRS Professional Investment Staff

In addition to receiving an annual salary, the VRS professional investment staff members have historically had the opportunity to receive cash incentive awards tied to the performance of the trust fund's investments. The board adopts a compensation policy that stipulates criteria for these incentive awards. Prior to 2009, incentive awards were calculated using a formula that relied on asset class and total fund performance relative to predetermined benchmarks over the most recent three- and five-year periods. In June 2009, the board adopted a new compensation policy for its professional investment staff, which changed how incentive awards could be determined and distributed. Rather than relying primarily on a formula, this compensation approach granted the board and the CIO more flexibility in determining and conferring annual incentive awards. The impetus for this change was the board's cancellation of earned incentive awards for fiscal year 2009, during which the total fund lost 21 percent of its value.

At its September 2012 meeting, the board voted unanimously to award an incentive pool of $3.7 million to the professional investment staff, based in part on the performance of the fund in FY2012 relative to the intermediate-term benchmark (a positive 27 basis points when measured over a one-year period). In 2011, the Board awarded an incentive pool ($3.4 million) even though the fund *underperformed* the intermediate-term benchmark by 28 basis points that year. This inconsistency, as well as concern by the board chair, the CIO, and JLARC staff about the compensation policy's reliance on qualitative, subjective measures of performance, prompted VRS to initiate a review of the compensation policy.

Between December 2012 and April 2013, VRS staff and the board worked with two different consulting firms to revise the approach to calculating and awarding incentive payments to the investment professionals. In April 2013, the board approved a new policy, which is very similar to the approach used until 2009 and more objective and formula-driven. The objectives of the compensation policy are to provide the VRS investment staff with competitive pay opportunities and to align compensation with long-term relative returns, as well as the total fund's absolute return. The policy still includes a qualitative component to incentivize the achievement of individually assigned objectives.

Incentive Opportunity Targets Vary by Position and Are Based on Salary. At the beginning of the fiscal year, investment professionals are assigned a target incentive opportunity, which is expressed as a percentage of actual earned base salary. This percentage varies by position, with higher percentages being assigned to positions with a greater potential effect on investment performance. This target incentive is designed to bring an individual's total cash compensation in line with the cash compensation provided at other (primarily public) investment organizations.

Preliminary Incentive Awards Are Calculated by Weighting Three Different Factors. Preliminary incentive payments are calculated at the end of the fiscal year. The award amount is calculated by weighting three different components of investment performance: (1) total fund performance relative to the benchmark; (2) the performance of the staff member's asset class relative to the benchmark *or* the average performance of the asset classes for managers or staff who contribute to the performance of multiple asset classes; and (3) a qualitative component focused on the achievement of individually assigned objectives. The weights given to these three components vary by position type. For example, positions that have a less direct impact on the performance of the total fund or their asset class have a higher portion of their target award weighted to the qualitative component.

To illustrate, a portfolio manager with a salary of $200,000 has a target incentive opportunity of $80,000, which is 40 percent of his or her annual salary. The compensation policy apportions the target incentive opportunity as follows: 60 percent ($48,000) is determined by the asset performance relative to its benchmark; 20 percent ($16,000) is determined by the total fund's relative performance; and 20 percent ($16,000) is determined by qualitative measures of individual performance.

The *actual* award amounts calculated for each of these three components could be less or greater than the target incentive. The actual award amounts for each component are calculated by applying a multiplier to the target amount. The multiplier ranges from zero to two and is tied directly to the number of basis points by which the total fund or asset class outperforms the relevant benchmark. Table 2 illustrates the relative excess returns that each asset class, as well as the total fund, must earn in order for the performance multiplier in the quantitative policy component to equal 1.00, which is to say that the portfolio manager would receive 100 percent of that component of the target incentive award. In all cases, simply earning the benchmarked rate of return results in a multiplier of zero. A multiplier of two times the target incentive (or 200%) is the maximum allowable incentive payment for each component. Additionally, a determination of "does not meet expectations" for the individual goals established for the qualitative component of the award would result in a multiplier of zero – or no award – for that qualitative component.

In addition to revising the incentive pay policy, VRS updated the performance criteria used to calculate these multipliers using the analysis and recommendations of its consultant, Hewitt Ennis Knupp. Hewitt Ennis Knupp recommended the benchmarks as well as the excess return targets shown in Table 2. These recommendations were based largely on the expectations set by VRS for how each asset class is expected to contribute to the total fund as well as the unique characteristics of each asset class. In some cases, the excess return targets adopted by VRS are lower than those adopted by other public funds. However, because of the substantial differences in the structure of the different funds' investments, such comparisons are of limited use. Overall, Hewitt Ennis Knupp concluded that "VRS's targets are not significantly out of line with peer practice in any area."

Final Incentive Awards Are Calculated Based on Total Fund Absolute Performance. Once the preliminary payouts are calculated based on relative performance of the total fund and the asset class, as well as an individual's achievement of certain qualitative objectives, a further adjustment is applied based on the total fund's one-year absolute return. This results in the final incentive award. To illustrate, if the total return is a negative ten percent, then the final incentive award is reduced by ten percent. Likewise, if the absolute return is a positive ten percent, the final award is increased by ten percent. Linking incentive pay to the total fund's absolute performance is an approach that is followed by the Massachusetts Pension Reserves. According to VRS's compensation consultant, McLagan, other public funds have shown interest in this approach. Table 3 illustrates the approach used to calculate the final incentive award for a portfolio manager with an annual salary of $200,000 and a target incentive opportunity of $80,000.

JLARC Staff Observed and Provided Input Into Compensation Policy Discussions. As part of its oversight activities, JLARC staff observed the process followed by VRS to develop the new policy for calculating incentive awards, and provided input into discussions held between VRS staff, board members, and VRS's consultants regarding key components of the policy. The new policy appears to strike an appropriate balance between VRS's need to attract and retain highly qualified investment staff and its desire to reinforce the board's long-term investment performance objectives. Additionally, in linking incentive awards to quantitative measures of performance, thereby relying less on subjective criteria for granting awards, the new policy establishes

Table 2
Benchmark and Excess Return Used in Calculating Quantitative Components of Investment Professionals' Incentive Awards

Asset Class	Benchmark	Return Required in Excess of Benchmark to Earn a 1.0 or 2.0 Multiplier for This Portion of Incentive Payment[a] (basis points)	
		1.0 Multiplier	2.0 Multiplier
Total Fund	Blend of the Individual Asset Class Benchmarks	30	60
Fixed Income	Citigroup Broad Investment Grade Index	20	40
Credit Strategies	Custom Benchmark[b]	50	100
Public Equity	MSCI All-Country World Investable Market Index	30	60
Private Equity	MSCI All-Country World Investable Market Index +250	50	100
Real Assets	Custom Benchmark[c]	75	150

[a] Performance is measured 50 percent on the basis of trailing three-year annualized performance and 50 percent based on trailing five-year annualized performance.

[b] Bank of America (BOA) Merrill Lynch All U.S. All Convertibles, BOA Merrill Lynch U.S. BB-B Constrained Index, Citigroup BIG Index, S&P Performing Loan Index, and Emerging Market Debt Custom Benchmark.

[c] NCREIF ODCE Index, DJ U.S. Select REIT Index, and FTSE EPRA/NAREIT Developed Index, and CPI + 400 basis points.

Source: JLARC staff analysis of the VRS Investment Professionals Pay Program, 2013.

a more predictable process. It is also more closely aligned with the incentive pay policies of other large public sector funds, which tend to calculate incentive payments using quantitative and objective metrics, such as relative investment performance to a pre-established benchmark. Additionally, the fact that final incentive awards will be adjusted based on the total fund's one-year absolute performance ensures that compensation practices are sensitive to the impacts of investment performance on the demand for public funds to pay a portion of the pension and related benefits owed to plan participants.

Three New Members Appointed to VRS Board of Trustees

Between September 2012 and April 2013, the General Assembly Joint Rules Committee appointed three new members to the board. Dr. Wallace G. "Bo" Harris is an assistant professor at the University of Richmond and is also a member of the Board of Trustees for the Richmond Retirement System. He retired in 2008 after 36 years of State government service, 28 of which were served as a VRS employee. He replaced Paul Timmreck, whose term expired in 2012. Dr. Harris's term as a VRS trustee will expire in February 2016.

Ms. Troilen Gainey Seward is a legislative consultant who represents the Virginia Association of School Psychologists, the Virginia State Reading Association, and

Table 3
Example of Calculation of Final Incentive Award[a]

Component	Portion of Target Incentive Payment Weighted to That Component	Fiscal Year Relative Performance	Multiplier Applied Based on Relative Performance	Portion of Total Award for That Component
Total Fund's Relative Performance to Benchmark	20% $16,000	+45 Basis Points	1.50	$24,000 (1.50* $16,000)
Asset Class Relative Performance to Benchmark	60% $48,000	+30 Basis Points	1.00	$48,000 (1.0* $48,000)
Individual Performance Objectives[b]	20% $16,000	Meets Expectations	1.00	$16,000 (1.0* $16,000)
			Preliminary Award	$88,000
			Final Award, Based on Total Fund One-Year Absolute Return of -10%[c]	**$79,200**

[a] This calculation uses the example of a portfolio manager who, based on that position classification, would have a target incentive opportunity of 40 percent of salary.

[b] Employees with a qualitative individual performance rating of "Does Not Meet Expectations" are not eligible to receive any award under this component. Additionally, in the event of termination for malfeasance, VRS may seek repayment for any paid incentive awards.

[c] Preliminary awards may also be adjusted upward when calculating the final award if the one-year absolute return for the total fund is positive.

Source: JLARC staff analysis of the VRS Investment Professionals Pay Program, 2013.

the Virginia Association of Adult and Continuing Education. She served as the superintendent of Dinwiddie County Public Schools from January 1996 to June 2001. Ms. Seward was appointed after trustee Raymond B. Wallace, Jr.'s term expired. Ms. Seward's term as a VRS trustee will expire in February 2017.

Mr. W. Brett Hayes is a Managing Principal with 20 years of experience at Wells Fargo Advisors Financial Network. Prior to that, he was a captain in the U.S. Air Force. Mr. Hayes was appointed trustee after trustee Dr. John "Jack" M. Albertine's term expired. Mr. Hayes's term as a VRS trustee will expire in February 2018.

The VRS Oversight Report is published periodically by the Joint Legislative Audit and Review Commission (JLARC) in fulfillment of the Virginia Retirement System Oversight Act (§ 30-78 et seq. of the Code of Virginia). This statute requires JLARC to provide the General Assembly with oversight capability concerning the VRS and to regularly update the legislature on oversight findings.