



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

## VRS Semi-Annual Investment Report July 2009

The current global recession and precipitous declines in equity markets between September 2008 and March 2009 have created significant investment challenges for the Virginia Retirement System (VRS). The return for the VRS pension fund for the one-year period ending March 31, 2009, was -29.1 percent, and the market value of the fund was \$38.9 billion. The difference in the value of the total fund between March 31, 2008 and March 31, 2009 amounts to \$16.8 billion. Whereas the fund's performance exceeded established benchmarks for the three-, five-, and ten-year periods ending March 31, 2009, this was not the case for the one-year period. Moreover, the fund did not earn the assumed actuarial rate of return, 7.5 percent, for the one-, three-, five-, and ten-year periods ending March 31, 2009. Performance indicators are provided in Table 1.

### Profile: Virginia Retirement System Investments (as of March 31, 2009)

**Market Value of Assets:** \$38.9 billion

**Number of External Managers:**

Public Equity – 38 (16 traditional, 22 hedge funds)

Fixed Income – 10

**Number of External Investment Accounts:**

Public Equity – 43 (20 traditional, 23 hedge funds)

Fixed Income – 13

**Number of VRS Investment Department Staff:** 57 authorized FTEs (12 vacant)

**FY 2008 Investment Expenses:** \$268.8 million (48.8 basis points)

**FY 2008 Investment Department Operating Expenses:** \$12.3 million\* (2.2 basis points)

Total Return on Investments			
10 years	5 years	3 years	1 year
2.8%	0.7%	-6.5%	-29.1%
Performance/Intermediate Benchmark			
1.9%	0.1%	-6.7%	-28.5%

### Investment Policy Indicators (as of March 31, 2009)

Asset Class	Asset Allocation (% of Total Assets)		Asset Allocation (% of Asset Class)		Type of Management (% of Asset Class)	
	Policy	Actual	Domestic	Non-U.S.	External	VRS
Public Equity**	40.9%	39.3%	50.4%	49.6%	81.7%	18.3%
Fixed Income**	26.5%	26.5%	92.6%	7.4%	78.0%	22.0%
Credit Strategies**	≤ 13.5%	13.4%	92.0%	8.0%	100.0%	0.0%
Private Equity	≤ 10.0%	9.7%	84.0%	16.0%	100.0%	0.0%
Real Estate	≤ 10.0%	9.4%	89.0%	11.0%	97.7%	2.3%
Cash	0.25%	1.75%	n/a	n/a	100.0%	0.0%

\*Includes allocated administrative expenses

\*\*Figures include hedge funds

**Table 1**  
**VRS Investment Performance for Period Ending March 31, 2009**

<i>Program/ Performance Objective</i>	<i>Fiscal Year to Date</i>	<i>1 Year</i>	<i>3 Years</i>	<i>5 Years</i>
<i>Total Fund</i>	-28.5%	-29.1%	-6.5%	0.7%
Total Fund Benchmark - Intermediate	-27.4%	-28.5%	-6.7%	0.1%
Total Fund Benchmark - Long Term	-25.9%	-27.0%	-7.6%	-1.7%
<i>Total Public Equity</i>	-40.2%	-40.6%	-13.1%	-2.8%
Public Equity Custom Benchmark	-39.1%	-40.1%	-12.9%	-2.8%
<i>Total Fixed Income</i>	0.4%	-0.7%	4.2%	3.3%
Fixed Income Custom Benchmark	5.8%	4.5%	6.5%	4.6%
<i>Total Credit Strategies</i>	-18.7%	-18.9%	-4.3%	n/a
VRS Credit Strategies Custom	-24.6%	-23.3%	-6.3%	n/a
<i>Total Private Equity</i>	-18.5%	-20.3%	9.4%	15.3%
Private Equity Custom Benchmark	-28.7%	-34.8%	-6.0%	0.6%
<i>Total Real Estate</i>	-27.3%	-28.3%	-1.6%	7.6%
Real Estate Custom Benchmark	-17.5%	-17.8%	2.2%	9.1%
<i>VRS Rebalancing Account</i>	-81.3%	-80.0%	n/a	n/a
Rebalancing Account Custom Benchmark	-79.4%	-78.0%	n/a	n/a

*Source: VRS investment department data.*

**Public Equity.** Public equity investments are 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. Despite a fiscal year to date return of -40.2 percent and a one-year loss of -40.6 percent, the public equity program continues to be VRS' largest asset class, constituting 39 percent of the portfolio or \$15.3 billion. Notably, one year ago the public equity program represented nearly 60 percent of the total portfolio and, in terms of dollars, totaled nearly twice as much in assets. This decline resulted from worldwide losses in equity markets that stemmed from the deterioration of the U.S. housing market, as well as VRS staff's strategic reallocation of public equity investments to the credit strategies and fixed income asset classes. The public equity program exceeded established benchmarks for the ten-year period ending March 31, 2009, but underperformed benchmarks for the fiscal year to date and the one- and three-year periods. The program achieved returns equal to the benchmark over the five-year period.

**Fixed Income.** The fixed income program serves as a diversifier for the overall portfolio. As of March 31, 2009, the fixed income program constituted 26.5 percent of the portfolio or \$10.3 billion. Almost all (92.6 percent) of fixed income assets were domestically invested. The fixed income program underperformed its benchmark for fiscal year to date as well as the one-, three-, five-, and ten-year periods ending March 31, 2009.

Over the past two years, the Board of Trustees approved increases in the policy target of the fixed income program, due to the investment staff's desire to reallocate some public equity investments to credit and debt-related strategies within fixed income. The policy target is currently 26.5 percent of the total fund. According to VRS staff, this shift has been beneficial to the overall performance of the portfolio because it shielded some assets from the equity market downturn.

**Credit Strategies.** In the current VRS portfolio, credit strategies are used opportunistically and are considered an alternative to the domestic equity market. 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.

The credit strategies program began July 1, 2004. As of March 31, 2009, the program had \$5.2 billion in assets and represented 13.4 percent of the total fund. While the VRS credit strategies program has performed better than the established benchmarks, it experienced a loss of -4.3 percent over the three-year period, -18.9 percent over the one-year period, and -18.7 percent for the fiscal year to date. However, these returns are better than the public equity returns during the same period.

**Private Equity.** Private equity is an opportunistic substitute for public equity. Through active equity management, VRS expects to earn a meaningful return premium on its private equity investments. As of March 31, 2009, private equity represented 9.7 percent of the total fund or \$3.8 billion.

The private equity program continues to add value to the overall portfolio and exceeded established benchmarks for the fiscal year to date and the one-, three-, five-, and ten-year periods ending March 31, 2009. However, while exceeding benchmarks, the program experienced losses of -18.5 percent and -20.3 percent over the fiscal year to date and one-year periods, respectively. These losses were not as great as those in the public equity and real estate programs, however, and exceeded returns of all other asset classes in the three-, five-, and ten-year periods. In addition, the dollar-weighted annualized performance since the inception of the program in April 1989 through December 31, 2008, was 22.6 percent. Still, VRS staff predict additional markdowns in private equity valuations as new data are made available for the first quarter of 2009. (Whereas private equity performance figures presented in this report reflect data on cash flow into the program as of March 31, 2009, they do not reflect private equity managers' actual valuations of these investments as of that date because these data have not yet been made available to VRS.)

Current economic conditions have proved very challenging for the private equity program. Investments made over the last several years are strained by the negative impacts of the recession on their underlying companies. As a result, VRS does not expect existing private equity investments to produce significant returns and does expect to incur losses. Further, VRS does not expect favorable exit opportunities in the near term and will likely increase holding periods for many of its investments. Still, good buying opportunities are expected to arise from these economic conditions. VRS intends to continue concentrating its private equity investments with managers who have demonstrated an ability to deliver good performance in such conditions.

**Real Estate.** The VRS real estate program underperformed its benchmark for the fiscal year to date, one-, three-, five-, and ten-year periods ending March 31, 2009, experiencing losses of -28.3 percent over the one-year period and -27.3 percent over the fiscal year to date. The majority (89 percent) of the real estate portfolio is invested in U.S. holdings. The total value of the real estate portfolio as of March 31, 2009, was \$3.6 billion or 9.4 percent of the total fund. As with private equity, VRS staff predict additional markdowns in real estate valuations as new data are made available for the first quarter of 2009. (Whereas real estate performance figures presented in this report reflect data on cash flow into the program as of March 31, 2009, they do not reflect real estate managers' actual valuations of these investments as of that date because these data have not yet been made available to VRS.)

**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 Board at ten percent. While not considered a separate asset class,

investments in hedge fund strategies constituted \$3.2 billion or 8.1 percent of the total portfolio as of March 31, 2009. 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. While returns since the inception of the program in July 2003 have been positive, more recent hedge fund performance has produced negative returns. However, hedge funds have outperformed during the weak market conditions of the past year.

### **Board Approves Changes to Asset Allocation Policy**

VRS' asset allocation policy defines the basic risk and return characteristics of the investment portfolio. While VRS is a long-term investor and its asset allocation policy is not expected to change significantly over time, the policy of conducting an asset allocation study on an annual basis ensures that VRS reviews its risk tolerance and its forward expectations at least once each year. While the study is conducted annually, asset allocation targets can be reconsidered any time market conditions or the underlying assumptions undergo a substantial change. For example, in December the Board approved staff recommendations to shift an additional ten percent of the total fund from investments in developed market equities to debt-related investments within the credit strategies, fixed income, or real estate programs. (Debt-related investments include, but are not limited to, investment-grade corporate bonds, convertible bonds, and commercial mortgage-backed securities.) As of March 31, 2009, approximately 45 percent of the total fund was invested in debt-related strategies. VRS staff estimate that over the next ten years debt strategies will produce returns higher than or equal to equities with equal or less risk.

In December, the Board also approved adjustments as necessary to the policy limits for each of these programs to reflect this shift in assets to credit strategies. The policy limits for alternative asset classes are not considered targets, and VRS practice has been to invest when and if opportunities in these asset classes materialize versus allocating assets in order to simply meet hard targets or predetermined goals. If opportunities arise, the new policy limits afford staff increased flexibility to add debt-related investments. The limits allow staff to not only add new investments but also to pull back based on their evaluation of the investment's value prospect.

The annual asset allocation review was conducted in June 2009. At its June 18 meeting, the Board maintained the major components of its current policy. Specifically, the Board voted to maintain (1) the current policy mix of 70 percent domestic stocks and 30 percent domestic bonds as the baseline long-term benchmark and risk target for the fund; (2) the current total fund tracking error limit of 200 basis points on a rolling three-year basis; and (3) the ten percent limits for alternative investments, including private equity, real estate, and hedge funds, and 13.5 percent for credit strategies. Notably, with the current long-term benchmark expected return of 7.5 percent and expected annualized volatility of 12 percent, the fund can still be expected to lose money in approximately one of every four years.

For the public equity program, the Board adopted a global equity index, the MSCI ACWI Global Equity Index, as its intermediate term benchmark. The long-term benchmark for the public equity program remains domestic. This change will be implemented in two steps in September 2009 and March 2010. The new benchmark will be 50 percent currency hedged on the developed non-U.S. portion of the benchmark; this will limit the amount of non-dollar assets reflected in the policy

benchmark. This change will result in shifting an additional ten percent of the public equity program (four percent of the total fund) toward non-U.S. equities from domestic equities. As of March 31, 2009, non-U.S. developed and emerging market equities constituted 18.6 percent of the total fund (\$7.2 billion) or nearly half of the public equity program. Increasing the public equity fund's exposure to non-U.S. equities is consistent with the overall objective of outperforming the long-term benchmark, as VRS staff expect that this strategy will improve the fund's performance over time.

### **New Rebalancing Policy for Intermediate Term Benchmark**

In June, the Board approved a new policy for rebalancing the intermediate term policy benchmark. In the past, VRS' policy has been to automatically rebalance the policy benchmark on a monthly basis. Rebalancing is necessary because the proportion of the individual asset classes that make up the intermediate term benchmark change with market conditions. However, because the actual portfolio must reflect the make-up of the benchmark within four percent, rebalancing the benchmark could mean that VRS must also rebalance the actual portfolio, which incurs transaction costs. Between September and December of 2008, due to the drastic downturn in the equity markets, this monthly rebalancing policy resulted in VRS incurring substantial transaction costs because of the need to reallocate assets in the portfolio to more closely match the rebalanced benchmark. Had the staff had greater flexibility with regard to the rebalancing policy, these transaction costs would have been mitigated.

VRS staff recommended that the Board revise the rebalancing policy to allow the CIO greater discretion in the timing and magnitude of rebalance decisions. Specifically, a rebalance of the policy benchmark will be required should the policy benchmark drift five percent from its established weights. However, the CIO will have discretion to rebalance prior to reaching the five percent trigger. This means that the policy benchmark weights will drift with changes in the market and will not be rebalanced until the CIO decides this is necessary, as long as the benchmark mix is within five percent of the Board-approved weights. This new policy is expected to avoid unnecessary transaction costs associated with keeping the actual portfolio in line with the policy benchmark, and thus enhance long-term investment returns for the total fund. According to an analysis by VRS staff, had the new policy been in place ten years ago, the fund's annualized return would be improved by 26 basis points, or 107 basis points over the past year alone.

### **Impact of Current Recession on VRS Investment Policies**

The impact of the current recession and downturn in the equity markets has resulted in a one-year VRS investment return of -29.1 percent. According to a recent peer comparison conducted by VRS, VRS has had a slightly higher percentage of its assets invested in equity markets than its peers and market downturns have disproportionately affected that asset class, accounting for between 70 and 75 percent of the total fund's losses over the past year.

In the past two years, VRS has taken steps that have placed it in a more favorable position to weather further market downturns. Specifically, staff have increased

investments in credit- and debt-related investments while gradually decreasing exposure to equities. As mentioned previously, the Board of Trustees has granted staff the ability to invest up to an additional 20 percent of the fund in credit- and debt-related instruments. These instruments are considered to be very competitive over the long term compared to equities, while also generating higher cash flow in the short term and experiencing lower risk. Moreover, the staff have increased exposure to emerging market equities which also exhibit promising returns over the long term.

Due to the fiscal and monetary policies employed to stimulate the economy, VRS could face the challenge of high inflation as economic conditions improve. To address such concerns, staff are considering specific investment strategies that could provide inflation protection or generate favorable returns during inflationary conditions. For example, within the fixed income program staff are considering directing some assets to floating rate bonds, Treasury Inflation Protected Securities (TIPS) related strategies, inflation-related derivatives, and various currency trades. Within the public equity program, staff are considering increasing investments in sectors that will perform better with inflation, including emerging markets, resource-based companies, and companies that are able to benefit from higher inflation. The credit strategies program already has substantial investments in floating rate bank loans, which will benefit from high inflation. The private equity program has recently made a commitment to an energy-focused fund, and staff in the real estate program are considering greater investments in infrastructure, timberland, and floating rate real estate debt. Importantly, VRS staff have stated that inflation hedging strategies such as these will be executed only as long as they are expected to perform well in the base case scenario (which does not expect high inflation), but that also will perform favorably if high inflation does occur.

### **VRS Cash Flow, Funded Status, and Contribution Rates**

VRS funds benefits and other expenses with employee and employer contributions as well as the proceeds of its investment portfolio. Notably, Virginia is unique in that the employee contribution of five percent of salary is actually paid by the employer. With respect to cash flow, the portfolio produces considerable positive cash flow each year through interest, dividends, and other distributions. However, VRS pays out more in benefit payments than it receives annually in employer and employee contributions. This net negative external cash-out is typically more than offset by cash-in from portfolio distributions.

At the June Investment Advisory Committee meeting, VRS staff presented a cash flow analysis of VRS assets through 2019 to assess the impact of current economic conditions on the ability of VRS to meet its obligations. The analysis showed that in fiscal years 2010 and 2011 investment income from alternative asset classes and employee and employer contributions alone will be insufficient to cover projected expenses. As a result, VRS staff predict that they may have to rely on the interest and dividends from the public equity and fixed income programs to cover these expenses, rather than abiding by the normal practice of reinvesting these earnings. This analysis assumed a FY 2009 return of -21 percent and returns in future years of 7.5 percent. It further assumed that contribution rates for the balance of the 2008-2010 biennium would remain as currently appropriated, and contribu-

tions thereafter would be funded at rates based on assumptions of an eight percent return, three percent inflation, and a 30-year amortization period.

The uncertainty surrounding the duration of the economic decline may mean that the assumptions used to forecast cash flow, such as investment return assumptions, are too optimistic. Additionally, current economic conditions might impact the General Assembly's ability and willingness to fund the actuarially recommended employer contribution rates, which the VRS actuary projects will need to increase by approximately three percent beginning in FY 2011 as a result of the projected decline in the plans' funded status. VRS staff recently conducted an analysis for the Senate Finance Committee regarding the impact of prospective contribution rates. That analysis showed that the funded status of the State employee plan will decline from 88 percent in 2008 to 73.3 percent in 2009, eventually declining to 65.1 percent in 2012. The funded status for the Teacher plan is projected to decline further, hitting 60.8 percent by 2012. The 2009 actuarial valuation of the plans, which will reflect the plans' official funded status and recommended employer contribution rates, will be completed in the Fall of 2009.

### **Alternative Contribution Rate Criteria for Local Plans**

The 2009 Appropriation Act requires VRS to establish minimum fiscal criteria that counties, cities, towns, and school divisions must meet to calculate their defined benefit contribution rates using actuarial assumptions that differ from those used by the VRS actuary. The alternate assumptions will be an investment return of eight percent, a cost of living increase of three percent, and an amortization period of 30 years, which collectively result in lowering required contribution rates. In April, the Board approved these criteria, which were developed in consultation with the VRS actuary and focus on each employer's funded status and fiscal stress index. Local employers meeting these criteria will be able to use these assumptions for calculating their FY 2010 contribution rates. Employers that do not meet these criteria are required to pay the contribution rates as calculated by the VRS actuary using assumptions of a 7.5 percent investment return, a 2.5 percent COLA, and a 20-year amortization period.

Depending on the funded status of an employer's retirement plan, alternate assumptions could lower the required contribution rate by between 0.52 percent and 2.39 percent of payroll. According to VRS, this change will result in approximately 20 percent of localities and school divisions being allowed to use the alternate assumptions. However, due to expected declines in the funded status of local plans of between 13 and 20 percent, the number of employers that will meet these criteria will likely decrease.

### **Iran Engagement Policy**

In February 2009, the House Appropriations Committee Chairman, who is also a member of JLARC, 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 one-tenth of one percent of the total fund, VRS will communicate to these companies Virginia's objections to Iran's geopolitical actions.

The policy provides that VRS will request that the scrutinized company (1) provide more information about its Iran-related activities, (2) explain how it is using its influence with the Iranian government to advocate against objectionable activities, and (3) identify any associated shareholder risks. The policy also provides that VRS will annually request that investment managers with exposure to scrutinized companies make an investment case for their business relationship with these companies. Finally, VRS plans to modify its proxy voting policy to support shareholder proposals that call for scrutinized companies to terminate business operations with Iran. VRS plans to produce an annual report on these activities for the Board of Trustees and to provide a copy to JLARC. The first report is planned for June 1, 2010.

### **Appointments to the Board of Trustees and Investment Advisory Committee Announced**

Nine members serve on the VRS Board of Trustees. Their appointment is shared between the executive and legislative branches of State government. The Governor appoints five members, including the chairman. The Joint Rules Committee of the Virginia General Assembly appoints four members and the General Assembly confirms all appointments. Of the nine board members, four must be investment experts; one must be experienced in employee benefit plans; one must be a local government employee; one must be an employee of a Virginia public institution of higher education; one must be a State employee; and one must be a public school teacher. The public employee members may be either active or retired. In March, the General Assembly Joint Rules Committee reappointed Dr. Edwin T. Burton III, to the Board of Trustees to serve a five-year term. Dr. Burton is a professor of economics at the University of Virginia. Dr. Judith Ewell retired from the Board of Trustees in March, and no new member has been appointed by the Governor to fill that vacancy.

In February, the Board of Trustees appointed Rod Smyth to serve a two-year term as the chairman of the Investment Advisory Committee (IAC). Mr. Smyth is a founding partner and chief investment strategist with the Riverfront Investment Group. Mr. Smyth succeeds Joe Grills as chairman of the IAC, though Mr. Grills will continue to serve on the committee.

In February, the Board of Trustees also named Thomas S. Gayner as an IAC member. Mr. Gayner is currently the executive vice president of Markel Corporation. Mr. Gayner was appointed to the IAC to fill the vacancy left by Stuart A. Sachs, who was not reappointed to the committee.

The statutory responsibility of the IAC is to provide the Board of Trustees with "...sophisticated, objective, and prudent investment advice." The members of the IAC are required to have extensive investment experience. The *Code of Virginia* also re-



quires that the IAC carry out specific responsibilities including reviewing and evaluating investments and investment opportunities and making recommendations to the Board of Trustees regarding investments and asset allocation policies.





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