

**Virginia Retirement System
Performance Summary
As of December 31, 2019**

TOTAL FUND PERFORMANCE

(Expressed in Percentages, Net of Fees)

	10 Yr	5 Yr	3 Yr	1 Yr	Qtr	Month	Fiscal YTD	Cal YTD
Total Public Equity Strategies	9.3	8.0	10.7	23.2	7.9	2.8	8.1	23.2
<i>Benchmark¹</i>	9.0	8.2	11.5	24.2	8.0	3.1	8.4	24.2
Total Investment-Grade Fixed Income	4.5	3.6	4.5	9.4	0.3	0.0	2.8	9.4
<i>Benchmark²</i>	3.8	3.0	4.0	8.7	0.2	-0.1	2.5	8.7
Total Credit Strategies	6.9	5.8	6.9	11.6	2.6	1.6	3.2	11.6
<i>Benchmark³</i>	6.3	5.8	6.8	14.0	3.1	1.8	4.2	14.0
Total Real Assets	11.6	9.8	9.3	8.5	1.5	1.5	3.6	8.5
<i>Benchmark⁴</i>	9.7	8.0	7.1	6.8	1.1	0.3	2.6	6.8
Total Private Equity	14.4	13.4	16.6	12.9	3.2	3.2	7.7	12.9
<i>Benchmark⁵</i>	13.9	11.0	13.9	6.9	1.5	2.8	5.6	6.9
Total Private Investment Partnerships	n/a	7.4	8.4	5.1	0.8	0.8	3.6	5.1
<i>Benchmark⁶</i>	n/a	7.4	8.4	5.1	1.1	1.2	3.6	5.1
Total Multi-Asset Public Strategies	n/a	n/a	n/a	10.0	3.0	1.4	3.8	10.0
<i>Benchmark⁷</i>	n/a	n/a	n/a	15.4	2.9	1.6	4.4	15.4
Total Fund	8.5	7.4	9.2	15.3	4.2	2.0	5.7	15.3
<i>VRS Custom Benchmark⁸</i>	8.0	7.2	9.1	15.4	4.1	1.9	5.6	15.4

Notes:

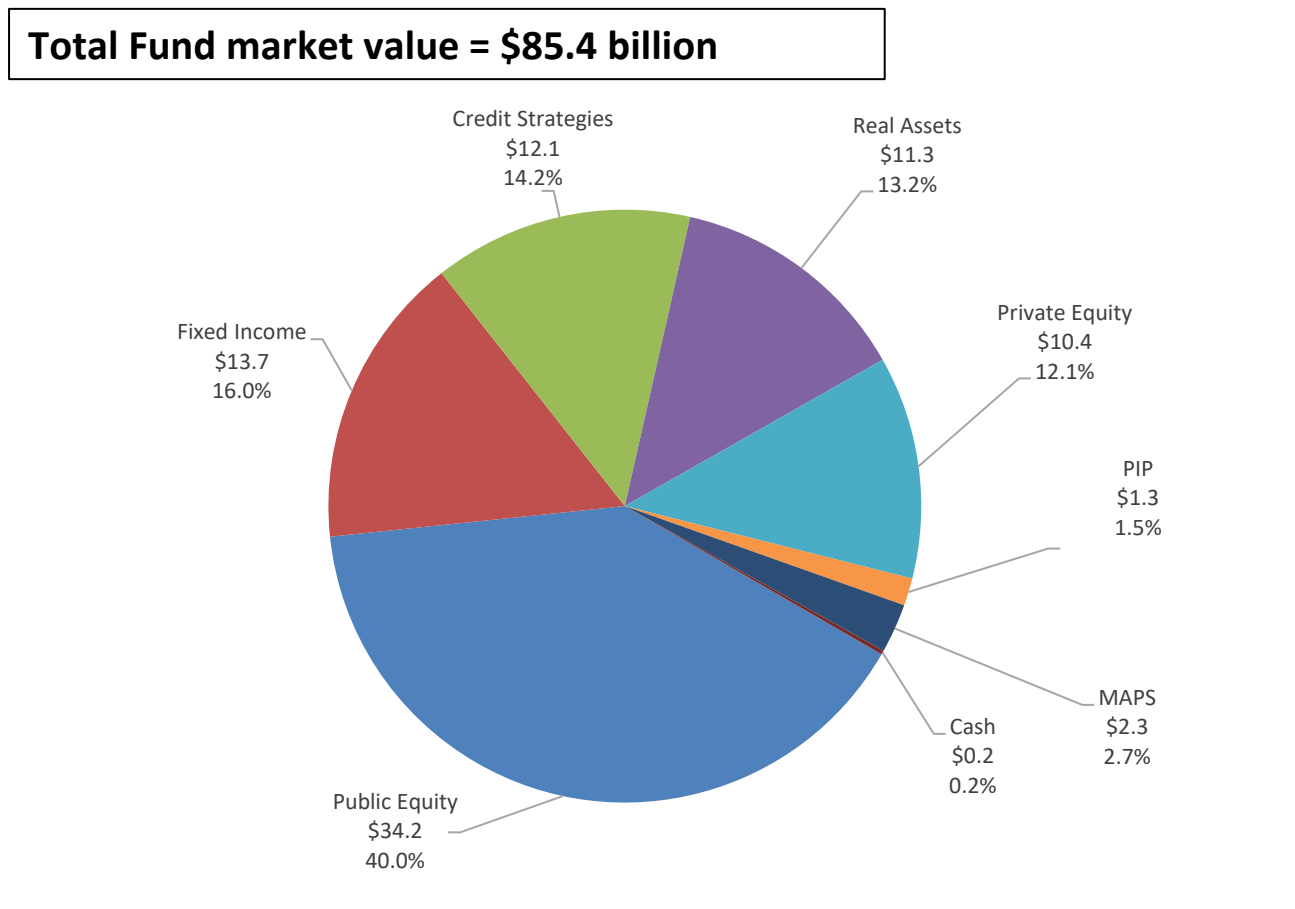
- Effective July 2015, the Public Equity Custom Benchmark is a blend of the MSCI ACWI IMI with developed market currencies 50% hedged (net VRS tax rates) Index (80%) and the Credit Suisse Equity Long/Short Broad Index (20%).
- Effective July 2014, the Investment-Grade Fixed Income Custom Benchmark consists of the Bloomberg Barclays US Aggregate Bond Index.
- Effective July 2012, the Credit Strategies Custom Benchmark is the weighted average of the Citigroup Broad Investment Grade Index (10%), the Bank of America Merrill Lynch BB-B Constrained Index (20%), the S&P Performing Loan Index (30%), the Emerging Market Debt Custom Benchmark (20%), and the Bank of America Merrill Lynch All U.S. Convertibles Index (20%). For the four years prior to July 2012, the risk-adjusted benchmark is the weighted average of the Bank of America Merrill Lynch U.S. High Yield BB-B Constrained Index and the Bank of America All Convertibles Index.
- Effective July 2014, the Real Assets Custom Benchmark is the market value weighted blend of the Total Real Estate Benchmark, of which 85% is the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) and 15% is the Total REIT Benchmark (FTSE/EPRA/NAREIT Developed REIT Index) and the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) with modified benchmarking for Other Real Assets during the increased allocation period.
- Effective July 2013, the Private Equity Custom Benchmark is the MSCI ACWI IMI with the Developed Market Currencies 50% Hedged customized for the VRS dividend withholding tax rates lagged by three months plus 250 basis points per annum with modified benchmarking during the increased allocation period.
- The Private Investment Partnerships Benchmark is the weighted average of the custom VRS Private Equity Benchmark (MSCI 50% hedged customized for the VRS dividend withholding tax rates lagged by three months plus 250 basis points) (40%), the NCREIF Private Real Estate Benchmark (ODCE Index (net) lagged by three months) (30%), the Other Real Assets Custom Benchmark (the CPI-U Index plus 400 basis points per annum lagged by three months) (10%), the Credit Strategies Rate Sensitive Benchmark (the Bank of America Merrill Lynch High Yield BB-B Constrained Index) (10%), and the Credit Strategies Non-Rate Sensitive Benchmark (the S&P Performing Loan Index) (10%).
- Effective July 2018, the Multi-Asset Public Strategies Custom Benchmark is the market value weighted average of the benchmarks of the mandates (Dynamic Strategies and Risk-Based Investments) within the program.
- The VRS Custom Benchmark is a blend of the Asset Class Benchmarks at policy weights.

Source: Bank of New York Mellon

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Virginia Retirement System Asset Allocation as of December 31, 2019

(Dollar amounts in Billions / Percent of Total Fund)



Source: Bank of New York Mellon

Fund Performance – Net of Fees



	VRS Return (As of December 31, 2019)
1-year	15.3%
3-year	9.2%
5-year	7.4%
10-year	8.5%
15-year	6.8%
20-year	6.0%
25-year	8.5%

Source: Bank of New York Mellon