



HYAS
GROUP

Spokane Employees' Retirement System

June 30, 2019 Performance Report

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Section 1



WHAT'S IN YOUR BOND PORTFOLIO?

As of April 30, 2019, the Intermediate-Term Bond category as defined by Morningstar was replaced with two new categories: Intermediate Core Bond and Intermediate Core-Plus Bond. Morningstar Category classifications were introduced in 1996 to help investors make meaningful comparisons between like-managed mutual funds. These categories were then further used to create peer groups or “universes” that would allow for better investment evaluation and oversight. These peer universes, in particular peer group risk and performance rankings, have become a staple of institutional investment policy statements and performance reporting.

So why the current category change? Financial markets have evolved and become increasingly complex over time. This is particularly true of the fixed income market. The introduction of entirely new investment products coupled with expanded access via professionally managed pools of capital (i.e. mutual funds) has broadened the investable universe of fixed income securities. As in any highly competitive industry, bond managers have consistently looked for ways to increase investment performance. As the fixed income opportunity set expanded, bond managers began to broaden their exposure to areas of the fixed income market that they deemed to be less efficient and offer higher returns. Those managers that were able to successfully invest in expanded opportunity sets often had an advantage over more traditional “core” managers. At the margin, these additional exposures did not significantly change the risk/return objectives of the core bond mandate but tended to enhance returns. These added exposures became known as the “plus” within core-plus mandates. However, at some level of exposure the expanded “plus” portfolio begins to materially alter the risk/return profile of a core bond portfolio.

Core Bond and Core-Plus Bond strategies primarily invest in investment-grade (high credit quality) domestic fixed income securities issued by the US government, government agencies, corporations and various securitized debt underwriters. The main difference between Core and Core-Plus strategies (as defined by industry and Morningstar) is the allocation to below-investment grade (lower credit quality) securities. Under Morningstar’s classification, Intermediate Core Bond managers are limited to invest no more than 5% of assets in below-investment grade securities. Core-Plus Bond managers have greater latitude within their allocation to below-investment grade securities. The current Morningstar universe average for Core-Plus Bond managers is just under 10% but it is not uncommon for more aggressive managers to allocate 20-25% of the portfolio to below-investment grade securities. In addition, Core-Plus managers will often have higher exposure to more complex and often less liquid asset-backed securities as well as bank loans, convertible bonds, futures/swaps and non-dollar denominated developed and emerging market securities.

So which strategy, Core or Core-Plus, is a better fit for investors? This is a complex question with the best-fit determined by what the investor is trying to achieve and what other specialty bond options are available. In general, if an investor’s time horizon is short and the primary objective of their bond portfolio is to provide a ballast or offset against equity or market liquidity risk, then Core Bond mandates may be preferred. This objective can be highlighted by comparing relative performance in 2008, one of the worst equity markets in history. In 2008, the return for Morningstar’s Core-Plus Bond category (as reflected in the new peer universe) was negative 4.89% vs. a positive 0.73% for the Core Bond category. By the end of 2009, this performance spread had reversed and there was virtually no difference in returns between the two categories across the two-year time frame. Bond investors with longer time horizons seeking higher returns, inflation protection and broader levels of diversification may be better served by a Core-Plus Bond mandate. This mandate generally runs with less interest rate risk, higher current yields and modestly broader currency exposure. Said differently, Core-Plus Bond mandates are generally expected to better protect investor purchasing power over longer time horizons.

The availability and utilization of other specialized bond strategies should also be considered when deciding between Core and Core-Plus mandates. In general, if an investor is likely to utilize a single bond option, they may prefer the broader exposure of the Core-Plus mandate. In contrast, if an investor is looking to build out a broadly diversified bond portfolio via multiple specialists, then they may be better served by starting with a Core Bond mandate and adding dedicated non-core allocations. Examples may include the addition of dedicated high yield and emerging market exposures. The utilization of a Core-Plus strategy in this context may result in overlapping exposures between your Core manager and your non-core specialists.

GLOBAL ECONOMIC LANDSCAPE

- The US economy gained 224,000 jobs in June, a sharp bounce back from a weak May report. This was significantly higher than economists had expected. While the recent report eases fears of a recession, it poses a major dilemma for a Federal Reserve that was expected to cut interest rates in July. The Fed initially forecast two rate hikes for 2019. Forward interest rate curves are now implying three rate cuts by the Fed for 2019. The European Central Bank appears to have pushed potential rate hikes out to 2020 and Japan is expected to continue its easing policy.
- The current unemployment rate of 3.7% remains near historic lows, well below the 50-year average rate of 6.2%. This would indicate an economy operating near full capacity. Historically we would expect to see higher inflation, rising interest rates and wage growth as a result. However, inflation remains below 2.0%, less than half the 50-year average. Interest rates have declined sharply since 3Q18 with 10-year Treasury yields currently just above 2.0%. Wage inflation appears to have stalled at 3.4%, well below the 4.1% 50-year average.
- The main driver of weaker economic growth sentiment during the quarter continued to be the back-and-forth tariff threats between the US and China. These concerns were compounded by weakness in domestic manufacturing, broadly slower growth reports out of China and a very weak May job report that ultimately rebounded in June.
- Foreign economies continue to show weak growth prospects. German industrial activity is nearing recession levels and the United Kingdom's Brexit transition is an ongoing source of uncertainty. Ten-year yields across Germany, France, Switzerland and Japan are all negative, reflecting continued weak growth expectations out of Europe.

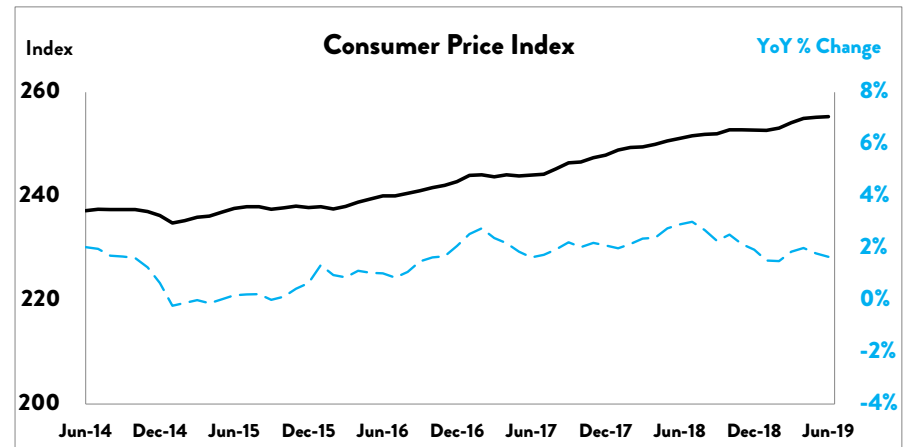
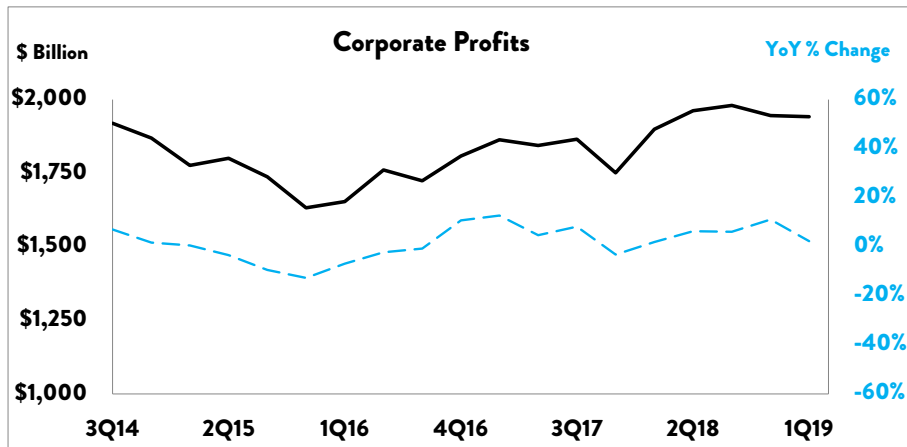
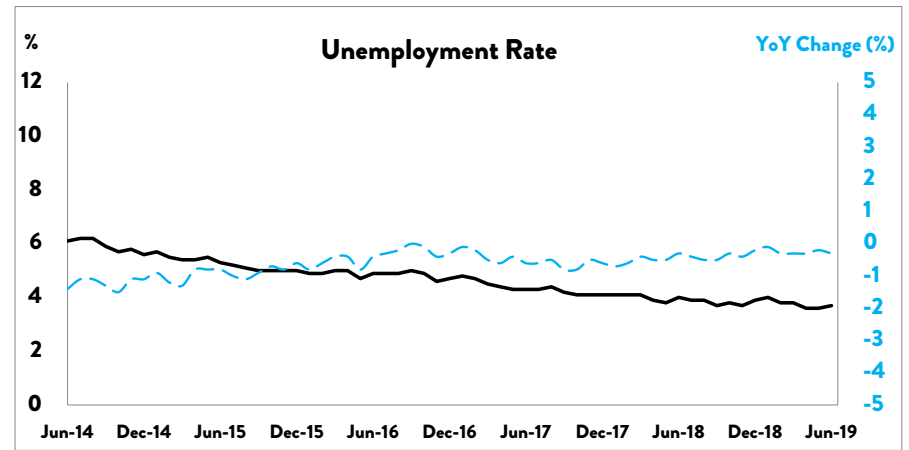
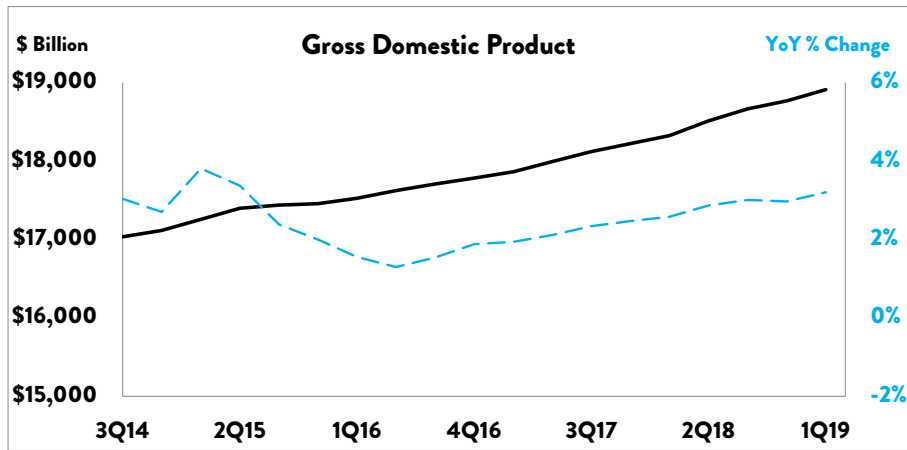
GLOBAL FINANCIAL MARKETS

- The United States is now the world's largest producer of oil, outpacing long-term leaders Saudi Arabia and Russia. According to the US Energy Information Administration, the US is projected to produce 14.46 million barrels of oil per day in 2019 thanks in large part to new technologies and methods of production. Enhanced domestic production allows the US to be less dependent on foreign producers for supply and reduces foreign producer's ability to manipulate pricing.
- Domestic fixed income markets benefited from a second straight quarter of declining interest rates and tighter credit spreads. This resulted in the strongest first-half returns in nearly 25 years despite historically low yields.
- Domestic equity markets continued to shed concerns of slowing economic data en route to posting extensive gains in the first half of the year. Gains that continued to be largely driven by a concentrated number of highly valued mega-cap technology stocks. For perspective, since the end of the last technology driven market rally of 1999, only one of the 10 largest-cap tech stocks (Microsoft) has outperformed the S&P 500 Index over the following 19 years.
- Despite generally poor growth prospects, international equity markets have posted strong returns. Developed markets have benefited from central bank pledges of more accommodative policies. Emerging markets have also benefited from easier monetary policy but have been more directly impacted by increasing trade tensions and resulting slower growth expectations.

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2Q2019 Economic Data



Key: — Economic Series - - - Year-Over-Year Change

Labor Market Statistics (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	5-Yr Avg.	Date
Jobs Added/Lost Monthly	224,000	351,000	14,000	207,900	Jun-19
Unemployment Rate	3.7%	6.2%	3.6%	4.7%	Jun-19
Median Unemployment Length (Weeks)	7.3	14.0	6.6	10.6	Jun-19
Average Hourly Earnings	\$27.90	\$27.90	\$24.49	\$26.05	Jun-19

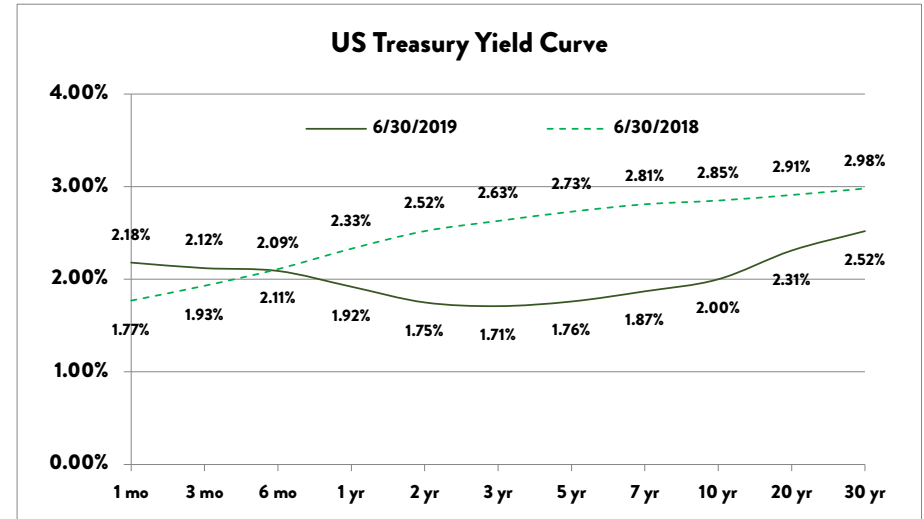
Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$2.67	\$3.62	\$1.79	-26.2%	Jun-19
Spot Oil	\$54.66	\$103.59	\$30.32	-47.2%	Jun-19
Case-Shiller Home Price Index	215.7	215.7	170.3	26.7%*	Apr-19
Medical Care CPI	495.3	495.3	436.0	13.6%*	Jun-19

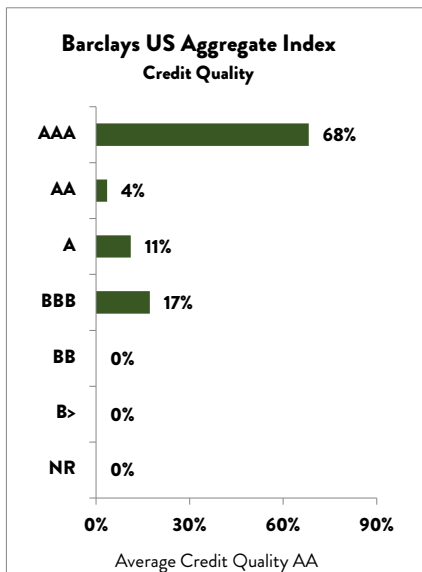
*% Off Low

2Q2019 Bond Market Data

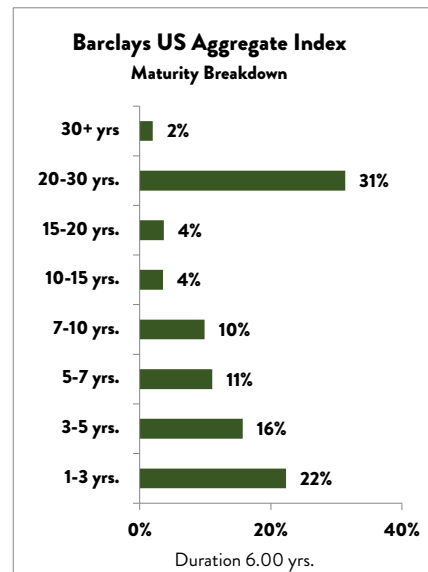
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.65%	1.25%	2.22%	1.26%	0.79%	0.44%
Barclays US Aggregate	3.08%	6.11%	7.87%	2.31%	2.95%	3.90%
Barclays Short US Treasury	0.71%	1.38%	2.48%	1.42%	0.95%	0.58%
Barclays Int. US Treasury	2.36%	3.99%	6.19%	1.31%	1.95%	2.44%
Barclays Long US Treasury	6.03%	10.98%	12.30%	1.34%	5.71%	6.53%
Barclays US TIPS	2.86%	6.15%	4.84%	2.08%	1.76%	3.64%
Barclays US Credit	4.27%	9.35%	10.34%	3.74%	3.92%	5.77%
Barclays US Mortgage-Backed	1.96%	4.17%	6.22%	2.06%	2.56%	3.23%
Barclays US Asset-Backed	1.67%	3.17%	4.98%	1.99%	2.07%	3.35%
Barclays US 20-Yr Municipal	2.57%	6.16%	7.95%	3.14%	4.66%	5.95%
Barclays US High Yield	2.50%	9.94%	7.48%	7.52%	4.70%	9.24%
Barclays Global	3.29%	5.57%	5.85%	1.62%	1.20%	2.89%
Barclays International	3.42%	4.99%	4.10%	0.97%	-0.12%	2.10%
Barclays Emerging Market	3.75%	9.39%	10.95%	5.05%	4.61%	7.67%



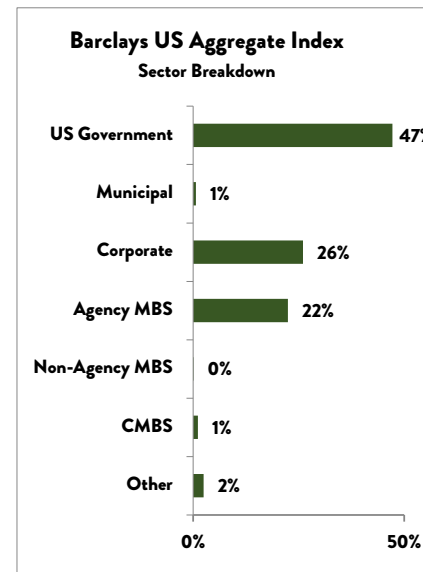
Source: Department of US Treasury



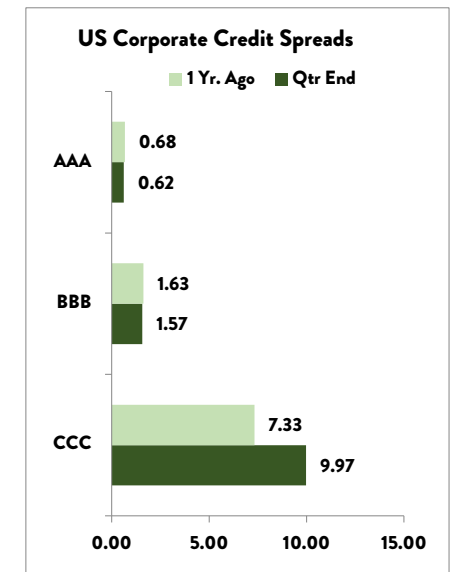
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

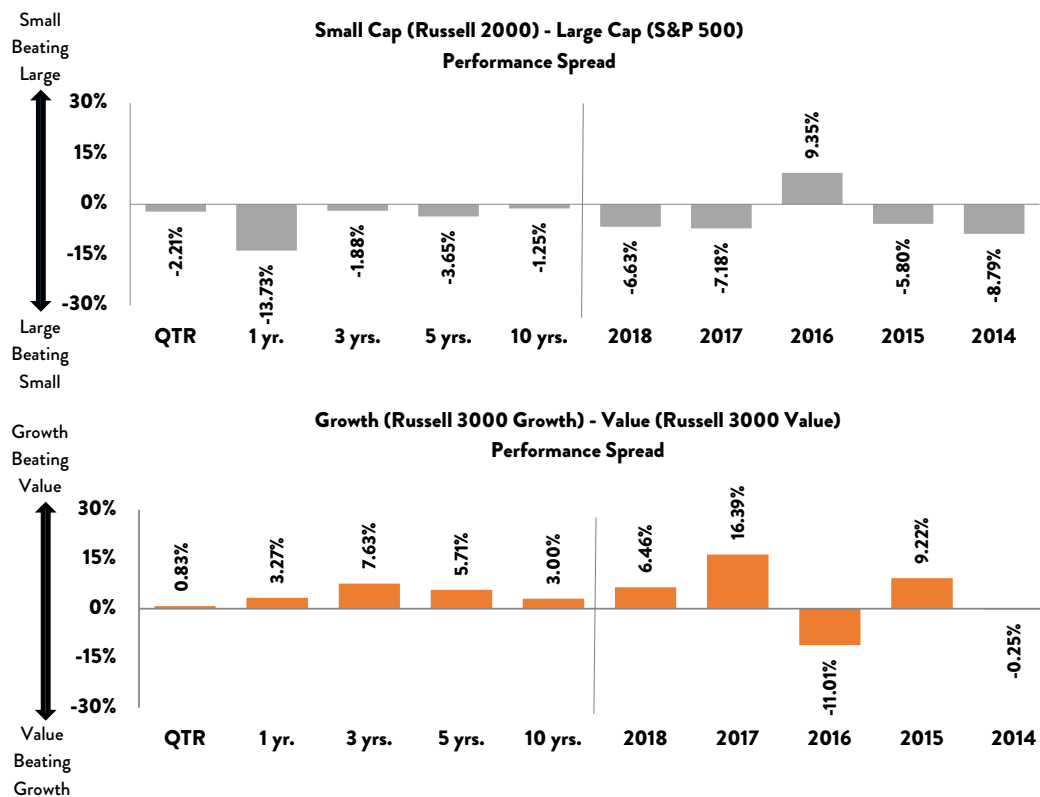
2Q2019 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

	S&P 500 Index				
	Wgt.	Sector	QTR	YTD	1 yr.
	13%	Financials	8.00%	17.24%	6.31%
	3%	Materials	6.31%	17.26%	3.20%
	21%	Information Technology	6.06%	27.13%	14.34%
	10%	Consumer Discretionary	5.28%	21.84%	10.17%
	10%	Communication Services	4.49%	19.09%	13.66%
	7%	Consumer Staples	3.72%	16.18%	16.39%
	9%	Industrials	3.57%	21.38%	10.43%
	3%	Utilities	3.48%	14.70%	19.03%
	3%	Real Estate	2.46%	20.42%	16.80%
	14%	Health Care	1.38%	8.07%	12.99%
	5%	Energy	-2.83%	13.13%	-13.25%
	S&P Midcap 400 Index				
	Wgt.	Sector	QTR	YTD	1 yr.
	17%	Financials	7.08%	18.84%	-0.20%
	16%	Industrials	7.07%	24.08%	9.17%
	12%	Consumer Discretionary	5.02%	16.36%	-5.36%
	16%	Information Technology	4.78%	27.09%	13.93%
	5%	Utilities	2.39%	13.08%	15.96%
	10%	Health Care	1.73%	15.25%	3.40%
	6%	Materials	1.03%	16.39%	-5.97%
	3%	Communication Services	0.69%	16.98%	19.90%
	10%	Real Estate	-1.93%	12.67%	0.61%
	3%	Consumer Staples	-2.70%	5.80%	-2.63%
	3%	Energy	-16.25%	0.34%	-39.31%
	S&P Smallcap 600 Index				
	Wgt.	Sector	QTR	YTD	1 yr.
	20%	Industrials	6.74%	20.17%	0.12%
	18%	Financials	5.78%	12.37%	-1.57%
	2%	Utilities	5.73%	15.32%	12.63%
	15%	Information Technology	4.02%	20.96%	2.30%
	12%	Health Care	2.17%	9.56%	-7.69%
	7%	Real Estate	-0.43%	15.99%	2.31%
	14%	Consumer Discretionary	-1.33%	8.72%	-8.06%
	3%	Consumer Staples	-2.38%	5.46%	-5.53%
	4%	Materials	-2.82%	15.52%	-11.83%
	2%	Communication Services	-8.72%	4.33%	-5.62%
	4%	Energy	-16.09%	2.94%	-46.52%

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	4.30%	18.54%	10.42%	14.19%	10.71%	14.70%
Russell 1000 Value	3.84%	16.24%	8.46%	10.19%	7.46%	13.19%
Russell 1000 Growth	4.64%	21.49%	11.56%	18.07%	13.39%	16.28%
Russell Mid Cap	4.13%	21.35%	7.83%	12.16%	8.63%	15.16%
Russell Mid Cap Value	3.19%	18.02%	3.68%	8.95%	6.72%	14.56%
Russell Mid Cap Growth	5.40%	26.08%	13.94%	16.49%	11.10%	16.02%
Russell 2000	2.10%	16.98%	-3.31%	12.30%	7.06%	13.45%
Russell 2000 Value	1.37%	13.47%	-6.24%	9.81%	5.39%	12.40%
Russell 2000 Growth	2.75%	20.36%	-0.49%	14.69%	8.63%	14.41%
Russell 3000	4.10%	18.71%	8.98%	14.02%	10.19%	14.67%
DJ US Select REIT	0.82%	16.67%	9.75%	3.73%	7.61%	15.40%



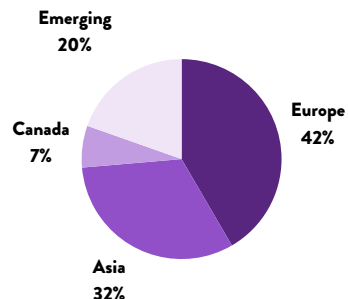
2Q2019 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	2.98%	13.60%	1.29%	9.39%	2.16%	6.54%
MSCI EAFE	3.68%	14.03%	1.08%	9.11%	2.25%	6.90%
Europe	4.48%	15.80%	1.88%	9.11%	1.27%	6.99%
United Kingdom	0.91%	12.91%	-2.05%	6.90%	-0.31%	6.82%
Germany	7.12%	14.52%	-3.76%	8.30%	0.30%	7.06%
France	6.49%	17.89%	2.98%	13.17%	3.61%	7.03%
Pacific	2.43%	11.17%	-0.17%	9.38%	4.29%	6.90%
Japan	1.02%	7.75%	-4.19%	8.06%	4.47%	5.85%
Hong Kong	1.02%	16.76%	10.41%	14.29%	8.40%	10.59%
Australia	7.30%	19.52%	6.55%	11.09%	2.35%	8.28%
Canada	4.88%	21.01%	3.32%	7.98%	-0.01%	5.31%
MSCI EM	0.61%	10.58%	1.21%	10.66%	2.49%	5.81%
MSCI EM Latin America	4.44%	12.64%	18.45%	10.79%	-0.75%	2.34%
MSCI EM Asia	-1.25%	9.72%	-2.29%	11.21%	4.49%	7.48%
MSCI EM Eur/Mid East	7.88%	14.72%	13.58%	11.23%	-1.59%	2.86%
MSCI ACWI Value ex-US	1.57%	10.02%	-0.07%	8.93%	0.29%	5.43%
MSCI ACWI Growth ex-US	4.35%	17.20%	2.64%	9.81%	4.00%	7.61%
MSCI ACWI Sm Cap ex-US	1.21%	11.60%	-5.94%	7.76%	2.77%	8.48%

Regional Exposure

MSCI ACWI ex-USA

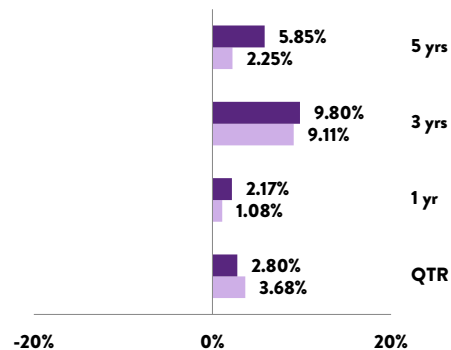


Top 10 Countries (MSCI AC World ex-USA)

Japan	16%
UK	11%
China	8%
France	8%
Canada	7%
Switzerland	6%
Germany	6%
Australia	5%
South Korea	3%
Taiwan	3%

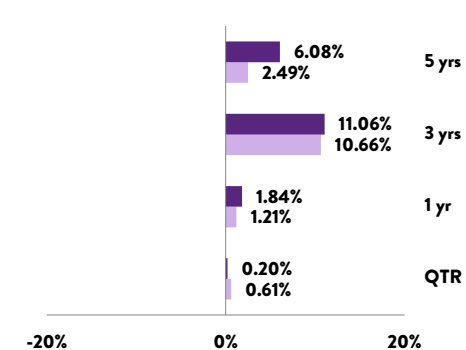
MSCI EAFE Index Return

Local (Dark Purple), US\$ (Light Purple)

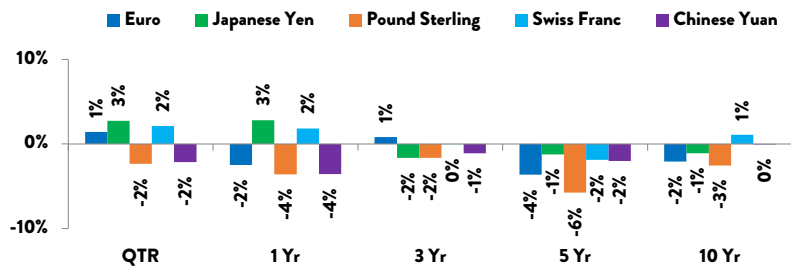


MSCI Emerging Index Return

Local (Dark Purple), US\$ (Light Purple)

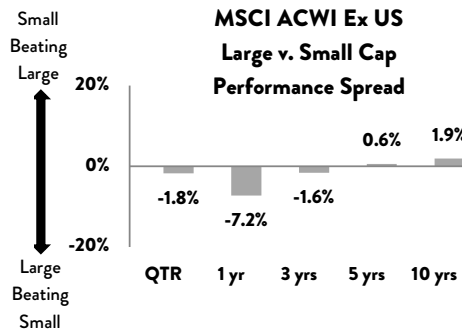


Foreign Currency v. US\$ Returns

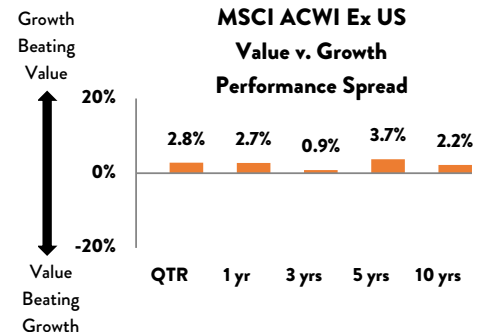


Exchange Rates	QTR	1Q19	4Q18	3Q18	2Q18	1Q18
Japanese Yen	107.84	110.68	109.70	113.48	110.71	106.20
Euro	0.88	0.89	0.87	0.86	0.86	0.81
British Pound	0.79	0.77	0.78	0.77	0.76	0.71
Swiss Franc	0.98	1.00	0.98	0.98	0.99	0.95
Chinese Yuan	6.87	6.71	6.88	6.87	6.62	6.27

MSCI ACWI Ex US Large v. Small Cap Performance Spread



MSCI ACWI Ex US Value v. Growth Performance Spread



Historical Market Returns

Ranked by Performance

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	2Q19
Emerging Markets 25.55%	Emerging Markets 34.00%	Emerging Markets 32.14%	Emerging Markets 39.42%	US Bonds 5.24%	Emerging Markets 78.51%	Small Cap 26.85%	Core Real Estate 14.96%	Emerging Markets 18.22%	Small Cap 38.82%	Large Cap 13.68%	Core Real Estate 13.95%	Small Cap 21.30%	Emerging Markets 37.28%	Core Real Estate 7.36%	Mid Cap 21.35%	Large Cap 4.30%
Intl 20.91%	Commod. 21.36%	Intl 26.65%	Intl 16.65%	Global Bonds 4.79%	High Yield 58.21%	Mid Cap 25.48%	TIPS 13.56%	Mid Cap 17.28%	Mid Cap 34.76%	Mid Cap 13.21%	Large Cap 1.38%	High Yield 17.12%	Intl 27.19%	Cash 1.69%	Large Cap 18.54%	Mid Cap 4.13%
Mid Cap 20.22%	Core Real Estate 20.15%	Small Cap 18.37%	Commod. 16.23%	Cash 1.39%	Intl 41.45%	Emerging Markets 18.88%	US Bonds 7.84%	Intl 16.83%	Large Cap 32.39%	Core Real Estate 11.44%	US Bonds 0.55%	Mid Cap 13.79%	Large Cap 21.83%	US Bonds 0.01%	Small Cap 16.98%	Global Balanced 3.59%
Small Cap 18.33%	Intl 16.62%	Large Cap 15.79%	Core Real Estate 14.84%	TIPS -2.35%	Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Global Bonds -1.20%	Intl 13.60%	Global Bonds 3.29%
Global Balanced 12.18%	Mid Cap 12.65%	Core Real Estate 15.27%	TIPS 11.64%	Core Real Estate -10.70%	Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76	Global Balanced 15.87%	TIPS -1.26%	Global Balanced 12.17%	US Bonds 3.08%
Core Real Estate 12.00%	Large Cap 4.91%	Mid Cap 15.26%	Global Bonds 9.48%	Global Balanced -24.51%	Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	High Yield -2.08%	Emerging Markets 10.58%	Intl 2.98%
High Yield 11.13%	Small Cap 4.55%	Global Balanced 14.53%	Global Balanced 9.07%	High Yield -26.16%	Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Large Cap -4.38%	High Yield 9.94%	TIPS 2.86%
Large Cap 10.88%	Global Balanced 4.16%	High Yield 11.85%	US Bonds 6.97%	Small Cap -33.79%	Commod. 18.91%	Intl 11.15%	Global Balanced -0.97%	Core Real Estate 9.76%	Cash 0.07%	High Yield 2.45%	Global Bonds -3.15%	Global Balanced 5.38%	Global Bonds 7.39%	Global Balanced -5.30%	TIPS 6.15%	High Yield 2.50%
Global Bonds 9.27%	Cash 3.25%	Global Bonds 6.64%	Mid Cap 5.60%	Commod. -35.65%	TIPS 11.41%	Global Balanced 9.40%	Mid Cap -1.55%	TIPS 6.98%	US Bonds -2.02%	Global Bonds 0.59%	Small Cap -4.41%	TIPS 4.68%	Core Real Estate 6.66%	Mid Cap -9.06%	US Bonds 6.11%	Small Cap 2.10%
Commod. 9.15%	TIPS 2.84%	Cash 4.85%	Large Cap 5.49%	Large Cap -37.00%	Global Bonds 6.93%	US Bonds 6.54%	Small Cap -4.18%	Global Bonds 4.32%	Global Bonds -2.60%	Cash 0.04%	High Yield -4.46%	Intl 4.50%	US Bonds 3.54%	Small Cap -11.01%	Global Bonds 5.57%	Core Real Estate 0.78%
TIPS 8.46%	High Yield 2.74%	US Bonds 4.33%	Cash 4.44%	Mid Cap -41.46%	US Bonds 5.93%	TIPS 6.31%	Commod. -13.32%	US Bonds 4.21%	Emerging Markets -2.60%	Emerging Markets -2.18%	Intl -5.66%	US Bonds 2.65%	TIPS 3.01%	Commod. -11.25%	Commod. 5.06%	Cash 0.65%
US Bonds 4.34%	US Bonds 2.43%	Commod. 2.07%	High Yield 1.87%	Intl -45.53%	Cash 0.16%	Global Bonds 5.54%	Intl -13.71%	Cash 0.08%	TIPS -8.61%	Intl -3.86%	Emerging Markets -14.90%	Global Bonds 2.09%	Commod. 1.70%	Intl -14.20%	Core Real Estate 1.99%	Emerging Markets 0.61%
Cash 1.44%	Global Bonds -4.49%	TIPS 0.41%	Small Cap -1.57%	Emerging Markets -53.33%	Core Real Estate -30.40%	Cash 0.15%	Emerging Markets -18.42%	Commod. -1.06%	Commod. -9.52%	Commod. -17.00%	Commod. -24.60%	Cash 0.25%	Cash 0.71%	Emerging Markets -14.58%	Cash 1.25%	Commod. -1.19%

Global Balanced is composed of 60% MSCI World Stock Index, 35% Barclays Global Aggregate Bond Index, and 5% US 90-Day T-Bills.

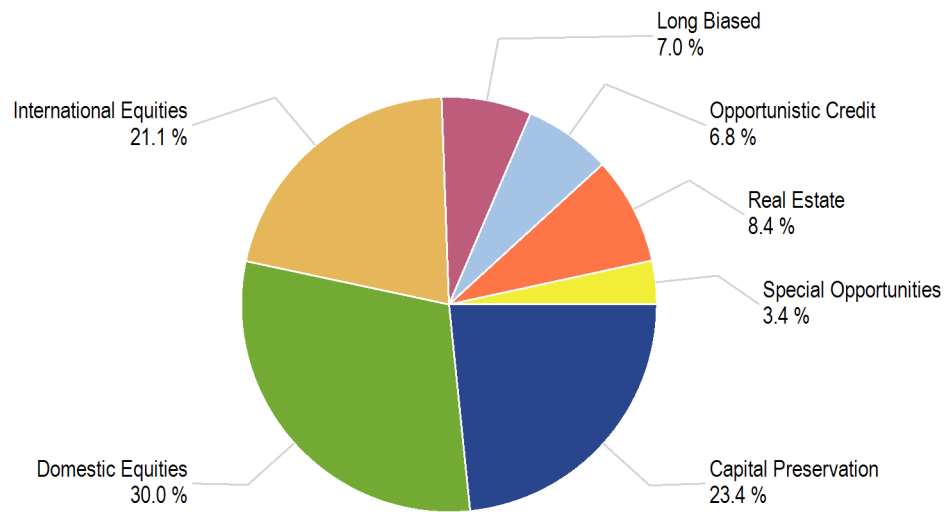
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Section 2

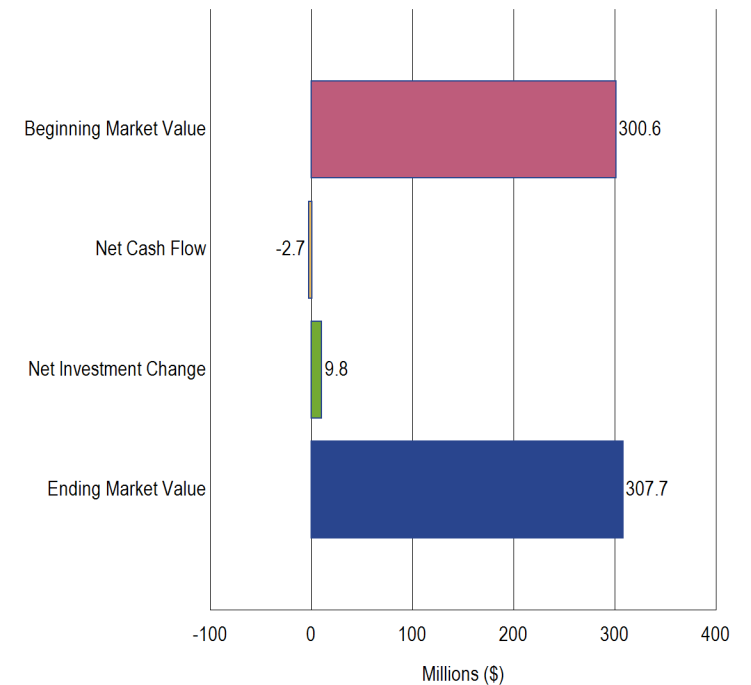
Spokane Employees' Retirement System

As of June 30, 2019

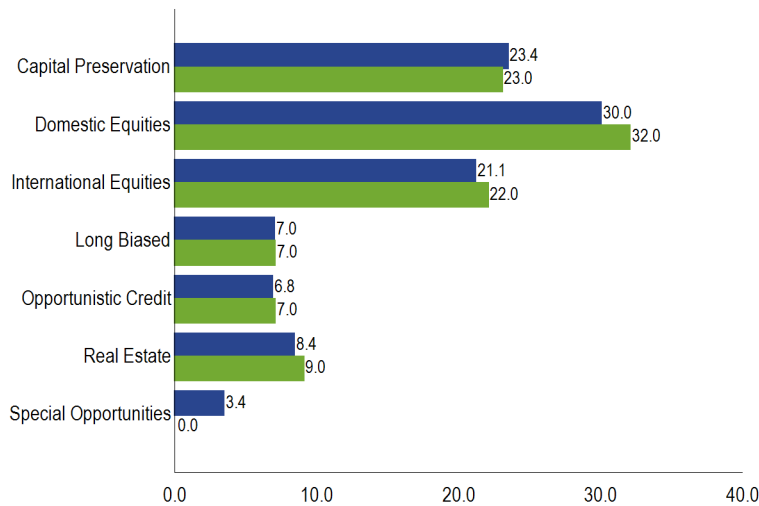
Current Allocation



Current Quarter



Actual vs Target Allocation (%)



Current Market Value:

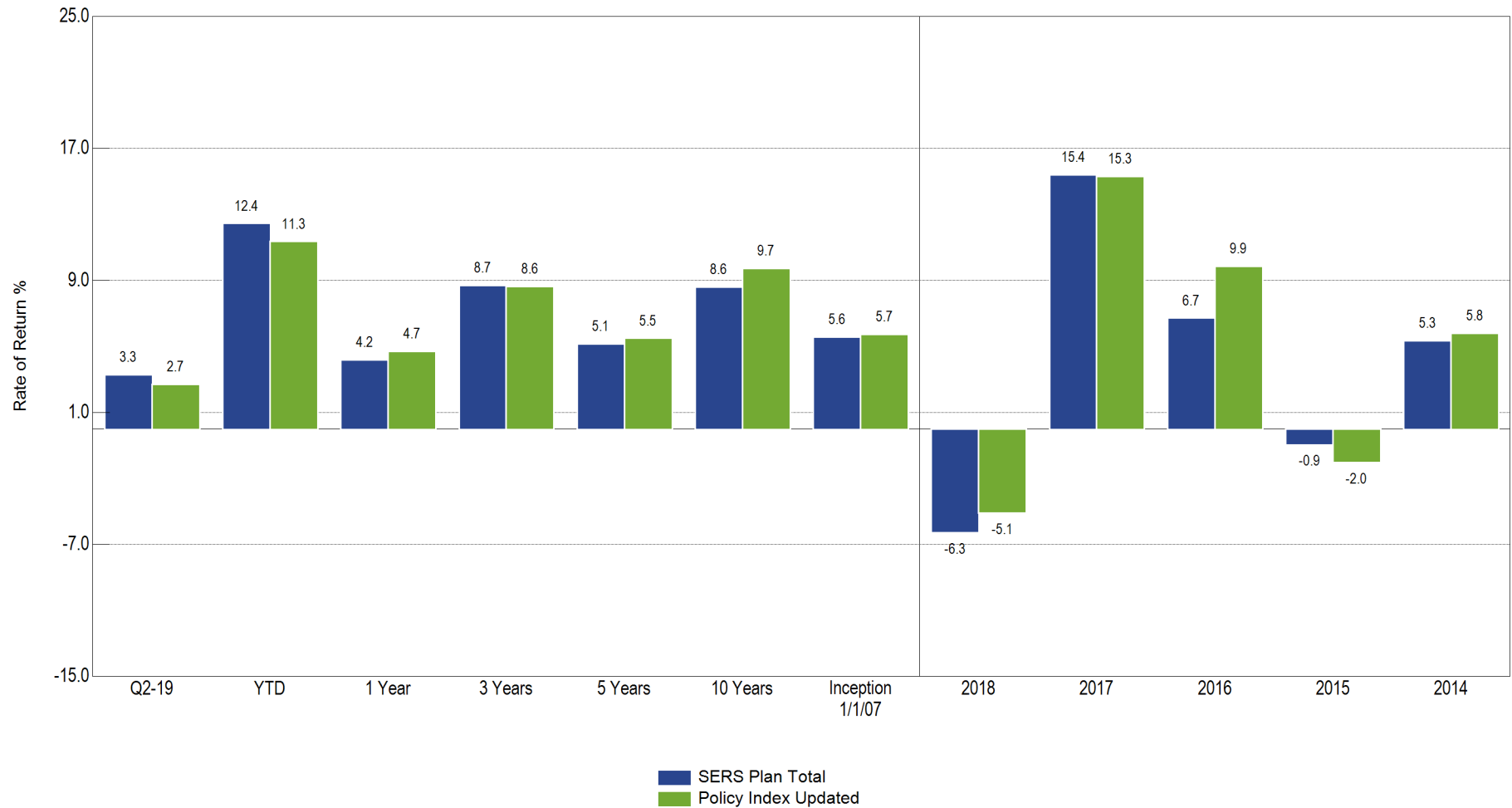
\$307,735,243

Policy Index

Index	Weight
US 90 Day T-Bill	0%
Barclays US Aggregate Bond Index	10%
Barclays Corporate High Yield Index	5%
HFRI FOF Conservative Index	8%
S&P 500 Index	21%
Russell 2500 Index	11%
MSCI ACWI ex-US Index	15%
MSCI ACWI ex-US Small Cap Index	4%
MSCI Emerging Markets Free Index	3%
HFRI FOF Composite Index	7%
HFRI Distressed Restructuring Index	7%
NCREIF - ODCE Index	6%
FTSE NAREIT Index	3%

Actual Policy

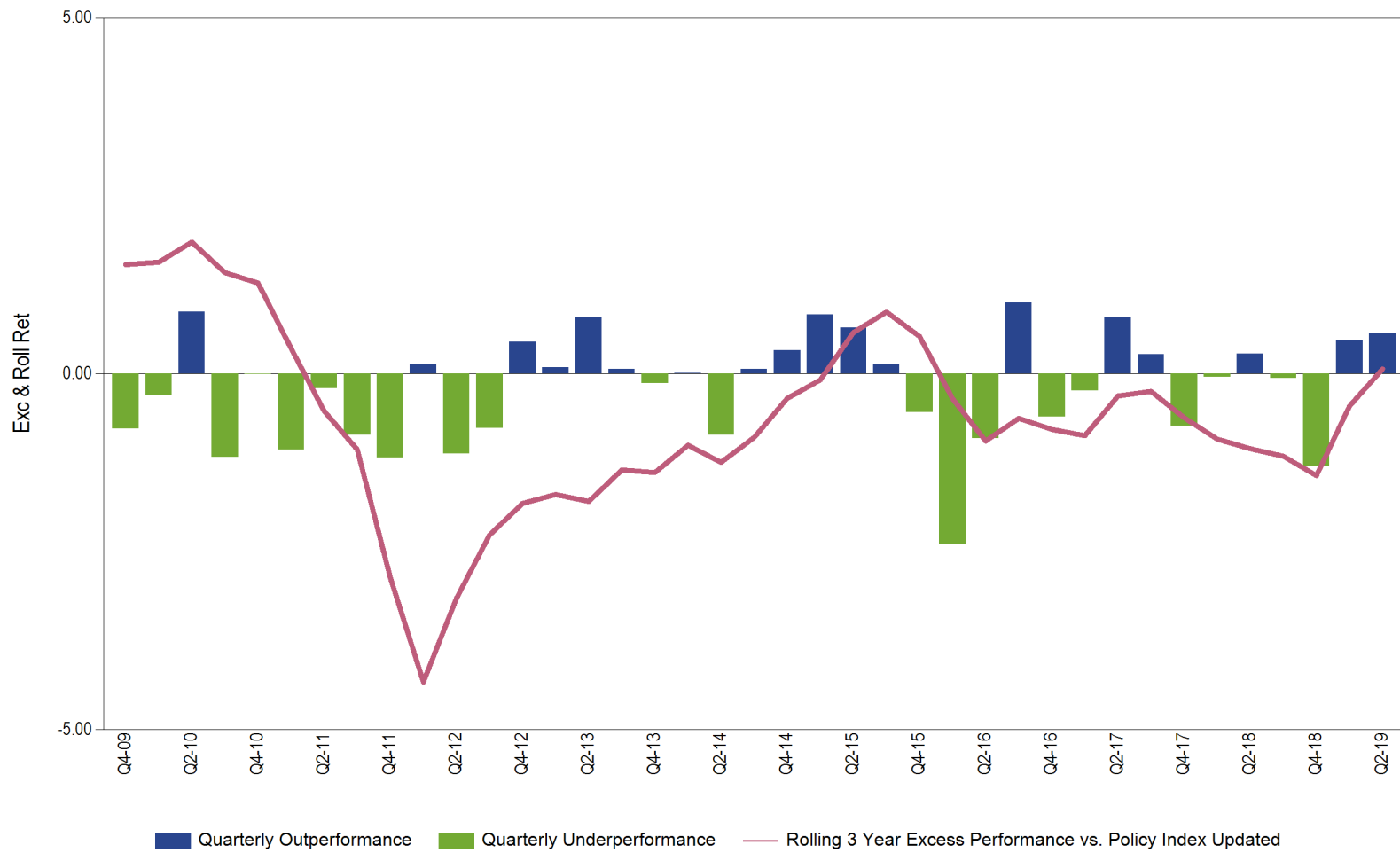
Return Summary



Performance Net of Fees

Performance greater than 1 year is annualized

Rolling Annualized Excess Performance



RISK RETURN STATISTICS

Trailing 3 Years

	SERS Plan Total	Policy Index Updated
RETURN SUMMARY STATISTICS		
Number of Periods	12	12
Maximum Return	8.88	8.41
Minimum Return	-9.67	-8.37
Annualized Return	8.70	8.64
Total Return	28.45	28.22
Annualized Excess Return Over Risk Free	7.31	7.24
Annualized Excess Return	0.07	0.00
RISK SUMMARY STATISTICS		
Beta	1.10	1.00
Upside Deviation	4.33	4.01
Downside Deviation	13.34	11.57
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	8.72	7.85
Alpha	-0.19	0.00
Sharpe Ratio	0.84	0.92
Excess Return Over Market / Risk	0.01	0.00
Tracking Error	1.34	0.00
Information Ratio	0.05	--
CORRELATION STATISTICS		
R-Squared	0.99	1.00
Correlation	0.99	1.00

Market Proxy: Policy Index Updated

Risk-Free Proxy: 91 Day T-Bills

RISK RETURN STATISTICS

Trailing 5 Years

	SERS Plan Total	Policy Index Updated
RETURN SUMMARY STATISTICS		
Number of Periods	20	20
Maximum Return	8.88	8.41
Minimum Return	-9.67	-8.37
Annualized Return	5.14	5.48
Total Return	28.51	30.60
Annualized Excess Return Over Risk Free	4.27	4.61
Annualized Excess Return	-0.34	0.00
RISK SUMMARY STATISTICS		
Beta	1.05	1.00
Upside Deviation	3.99	3.58
Downside Deviation	8.12	7.54
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	7.81	7.25
Alpha	-0.15	0.00
Sharpe Ratio	0.55	0.64
Excess Return Over Market / Risk	-0.04	0.00
Tracking Error	1.65	0.00
Information Ratio	-0.21	--
CORRELATION STATISTICS		
R-Squared	0.96	1.00
Correlation	0.98	1.00

Market Proxy: Policy Index Updated

Risk-Free Proxy: 91 Day T-Bills

RISK RETURN STATISTICS

January 01, 2007 Through June 30, 2019

	SERS Plan Total	Policy Index Updated
RETURN SUMMARY STATISTICS		
Number of Periods	50	50
Maximum Return	12.42	16.64
Minimum Return	-14.46	-17.38
Annualized Return	5.56	5.73
Total Return	96.58	100.59
Annualized Excess Return Over Risk Free	4.71	4.88
Annualized Excess Return	-0.17	0.00
RISK SUMMARY STATISTICS		
Beta	0.88	1.00
Upside Deviation	5.98	7.25
Downside Deviation	9.06	10.15
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	11.08	12.41
Alpha	0.12	0.00
Sharpe Ratio	0.43	0.39
Excess Return Over Market / Risk	-0.02	0.00
Tracking Error	2.54	0.00
Information Ratio	-0.07	--
CORRELATION STATISTICS		
R-Squared	0.97	1.00
Correlation	0.98	1.00

Market Proxy: Policy Index Updated

Risk-Free Proxy: 91 Day T-Bills

Spokane Employees' Retirement System

As of June 30, 2019

Total Account Performance Summary

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
SERS Plan Total	3.27	12.44	4.18	8.70	5.14	8.59	-6.27	15.40	6.71	-0.94	5.34	18.89	11.70	5.56	Jan-07
Policy Index Updated	<u>2.71</u>	<u>11.35</u>	<u>4.71</u>	<u>8.64</u>	<u>5.48</u>	<u>9.72</u>	<u>-5.09</u>	<u>15.29</u>	<u>9.86</u>	<u>-2.00</u>	<u>5.79</u>	<u>17.92</u>	<u>13.18</u>	<u>5.73</u>	Jan-07
Over/Under	0.56	1.09	-0.53	0.06	-0.34	-1.13	-1.18	0.11	-3.15	1.06	-0.45	0.97	-1.48	-0.17	
70/30 ACWI/Barclays Aggregate Bond	3.56	13.27	6.70	8.91	5.35	8.46	-6.48	17.50	6.42	-1.30	4.77	14.87	12.66	5.11	Jan-07
InvMetrics All DB \$250mm-\$1B Net Rank	54	46	93	38	80	72	83	42	74	47	63	8	61	56	Jan-07
Capital Preservation	2.63	6.58	5.36	5.21	3.14	--	-0.94	5.85	8.12	-1.74	1.65	2.70	--	3.68	Jul-12
Capital Preservation Index	<u>2.49</u>	<u>6.55</u>	<u>5.88</u>	<u>4.00</u>	<u>3.09</u>	<u>4.81</u>	<u>-0.72</u>	<u>4.60</u>	<u>5.43</u>	<u>-0.58</u>	<u>4.23</u>	<u>3.33</u>	<u>6.66</u>	<u>3.77</u>	Jul-12
Over/Under	0.14	0.03	-0.52	1.21	0.05		-0.22	1.25	2.69	-1.16	-2.58	-0.63		-0.09	
Domestic Equity	4.79	19.32	5.91	13.45	8.86	--	-7.80	19.86	10.91	-0.32	11.10	36.38	--	12.95	Jul-12
Domestic Equity Index	<u>3.84</u>	<u>18.81</u>	<u>7.42</u>	<u>13.60</u>	<u>9.71</u>	<u>14.66</u>	<u>-6.30</u>	<u>20.11</u>	<u>13.92</u>	<u>-0.06</u>	<u>11.44</u>	<u>33.91</u>	<u>16.67</u>	<u>13.52</u>	Jul-12
Over/Under	0.95	0.51	-1.51	-0.15	-0.85		-1.50	-0.25	-3.01	-0.26	-0.34	2.47		-0.57	
All Cap Blend MStar MF Rank	18	23	45	30	35	--	45	37	70	33	38	35	--	37	Jul-12
International Equity Total	3.27	15.19	0.63	9.26	3.26	8.15	-15.78	28.45	3.91	-1.32	-3.58	20.93	18.48	4.43	Apr-07
International Equity Index	<u>2.34</u>	<u>12.83</u>	<u>-0.05</u>	<u>9.29</u>	<u>2.36</u>	<u>6.83</u>	<u>-14.96</u>	<u>29.35</u>	<u>5.34</u>	<u>-5.49</u>	<u>-3.63</u>	<u>13.48</u>	<u>17.36</u>	<u>2.67</u>	Apr-07
Over/Under	0.93	2.36	0.68	-0.03	0.90	1.32	-0.82	-0.90	-1.43	4.17	0.05	7.45	1.12	1.76	
Foreign MStar MF Rank	47	39	35	33	32	35	50	42	24	67	32	56	55	18	Apr-07
Long Biased	2.22	9.45	6.33	4.85	2.97	--	2.43	1.19	-2.99	4.04	3.62	9.56	--	4.45	Jul-12
HFRI Fund of Funds Composite Index	<u>1.69</u>	<u>6.38</u>	<u>1.36</u>	<u>4.32</u>	<u>2.23</u>	<u>3.23</u>	<u>-4.02</u>	<u>7.77</u>	<u>0.51</u>	<u>-0.27</u>	<u>3.36</u>	<u>8.96</u>	<u>4.79</u>	<u>3.70</u>	Jul-12
Over/Under	0.53	3.07	4.97	0.53	0.74		6.45	-6.58	-3.50	4.31	0.26	0.60		0.75	
S&P 500	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	13.98	Jul-12
Opportunistic Credit	1.21	3.74	-4.50	4.32	3.66	--	-5.68	7.08	14.52	2.35	2.32	--	--	4.80	Oct-13
HFRI ED: Distressed/Restructuring Index	<u>1.27</u>	<u>4.53</u>	<u>-0.12</u>	<u>6.71</u>	<u>1.57</u>	<u>6.26</u>	<u>-1.70</u>	<u>6.25</u>	<u>15.15</u>	<u>-8.06</u>	<u>-1.39</u>	<u>14.05</u>	<u>10.12</u>	<u>3.06</u>	Oct-13
Over/Under	-0.06	-0.79	-4.38	-2.39	2.09		-3.98	0.83	-0.63	10.41	3.71			1.74	

Capital Preservation Index: Barclays Aggregate: 43.5%; HFRI Conservative: 34.8%; Barclays High Yield: 21.8%

Domestic Equity Index: S&P 500: 65.63%; Russell 2500: 34.37%

International Index: MSCI ACWI ex US: 68.2%; MSCI ACWI ex US Small Cap: 18.2%; MSCI Emerging Mkts: 13.6%

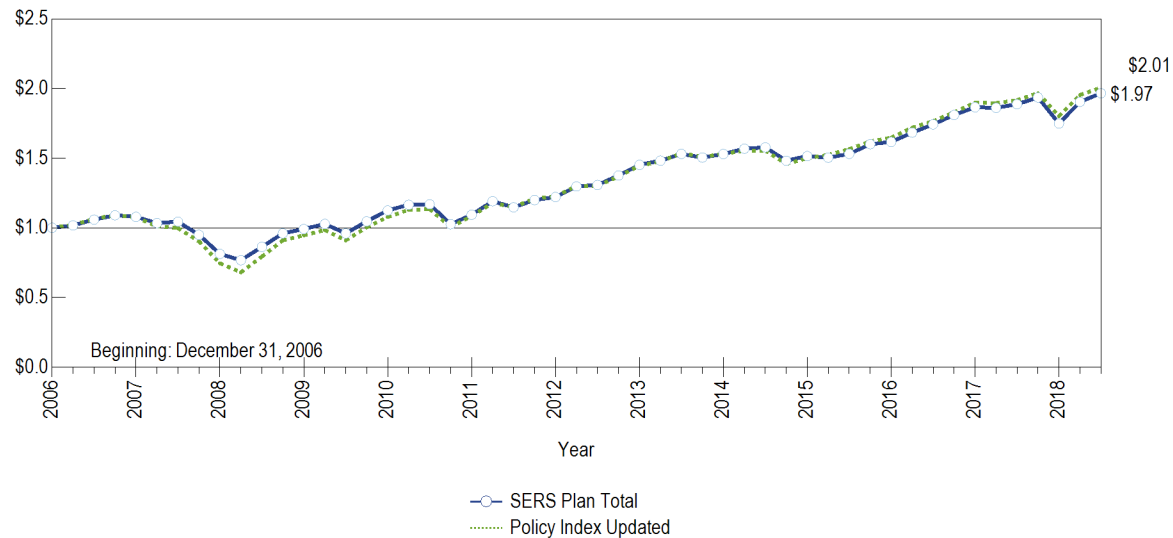
Spokane Employees' Retirement System

As of June 30, 2019

Total Account Performance Summary

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
Real Estate Total	2.40	10.36	11.23	7.75	9.73	15.02	3.68	10.01	8.09	6.66	25.00	8.71	15.17	5.77	Apr-07
NCREIF-ODCE	0.99	2.42	6.41	7.57	9.75	9.88	8.35	7.62	8.76	15.02	12.48	13.94	10.94	5.92	Apr-07
Over/Under	1.41	7.94	4.82	0.18	-0.02	5.14	-4.67	2.39	-0.67	-8.36	12.52	-5.23	4.23	-0.15	
FTSE NAREIT All REIT	1.08	17.97	11.52	5.81	8.56	15.52	-4.42	9.27	9.28	2.29	27.15	3.21	20.14	5.43	Apr-07
US Real Estate Equity Rank	35	99	63	7	20	92	1	11	32	7	94	7	98	66	Apr-07
Special Opportunities	2.94	10.95	-1.81	5.49	2.52	--	-11.43	25.32	-21.90	2.13	25.88	31.60	--	7.11	Jul-12
Russell 3000	4.10	18.71	8.98	14.02	10.19	14.67	-5.24	21.13	12.73	0.48	12.56	33.55	16.42	13.79	Jul-12
Over/Under	-1.16	-7.76	-10.79	-8.53	-7.67		-6.19	4.19	-34.63	1.65	13.32	-1.95		-6.68	

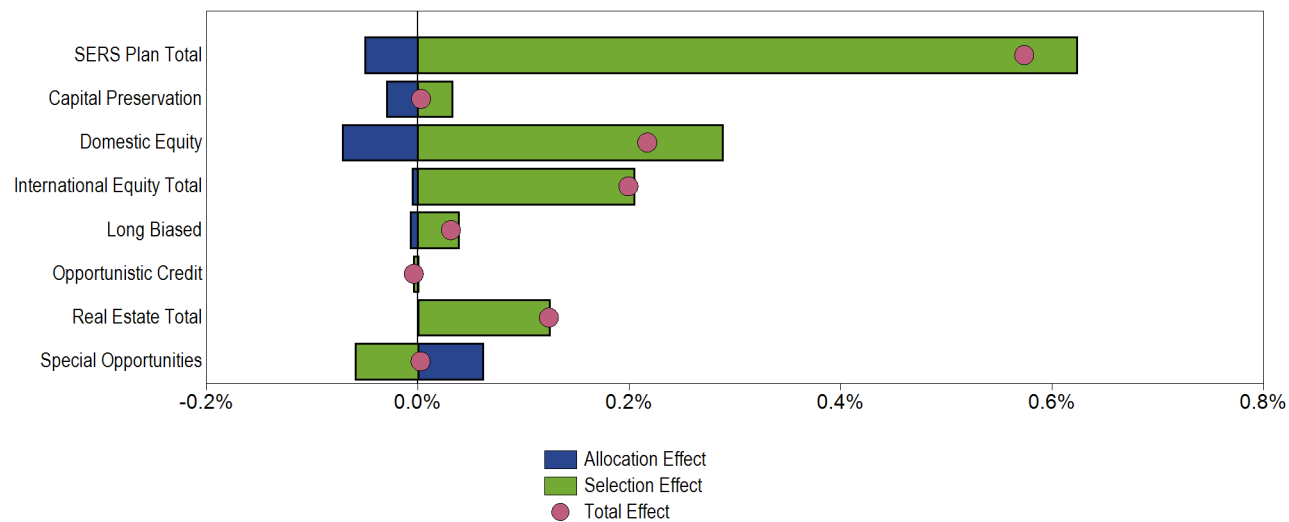
Growth of a Dollar



Attribution Summary
3 Months Ending June 30, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	2.6%	2.5%	0.1%	0.0%	0.0%	0.0%
Domestic Equity	4.8%	3.8%	0.9%	0.3%	-0.1%	0.2%
International Equity Total	3.3%	2.3%	0.9%	0.2%	0.0%	0.2%
Long Biased	2.2%	1.7%	0.5%	0.0%	0.0%	0.0%
Opportunistic Credit	1.2%	1.3%	-0.1%	0.0%	0.0%	0.0%
Real Estate Total	2.4%	1.0%	1.4%	0.1%	0.0%	0.1%
Special Opportunities	2.9%	4.1%	-1.2%	-0.1%	0.1%	0.0%
Total	3.3%	2.7%	0.6%	0.6%	0.0%	0.6%

Attribution Effects
3 Months Ending June 30, 2019

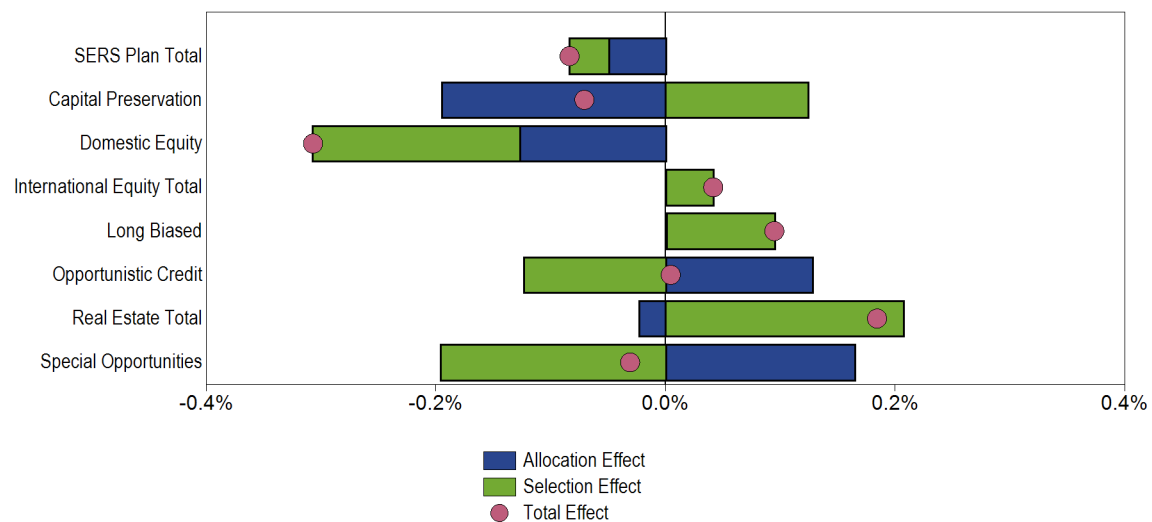


Attributions reflect new policy index

Attribution Summary
2 Years 6 Months Ending June 30, 2019

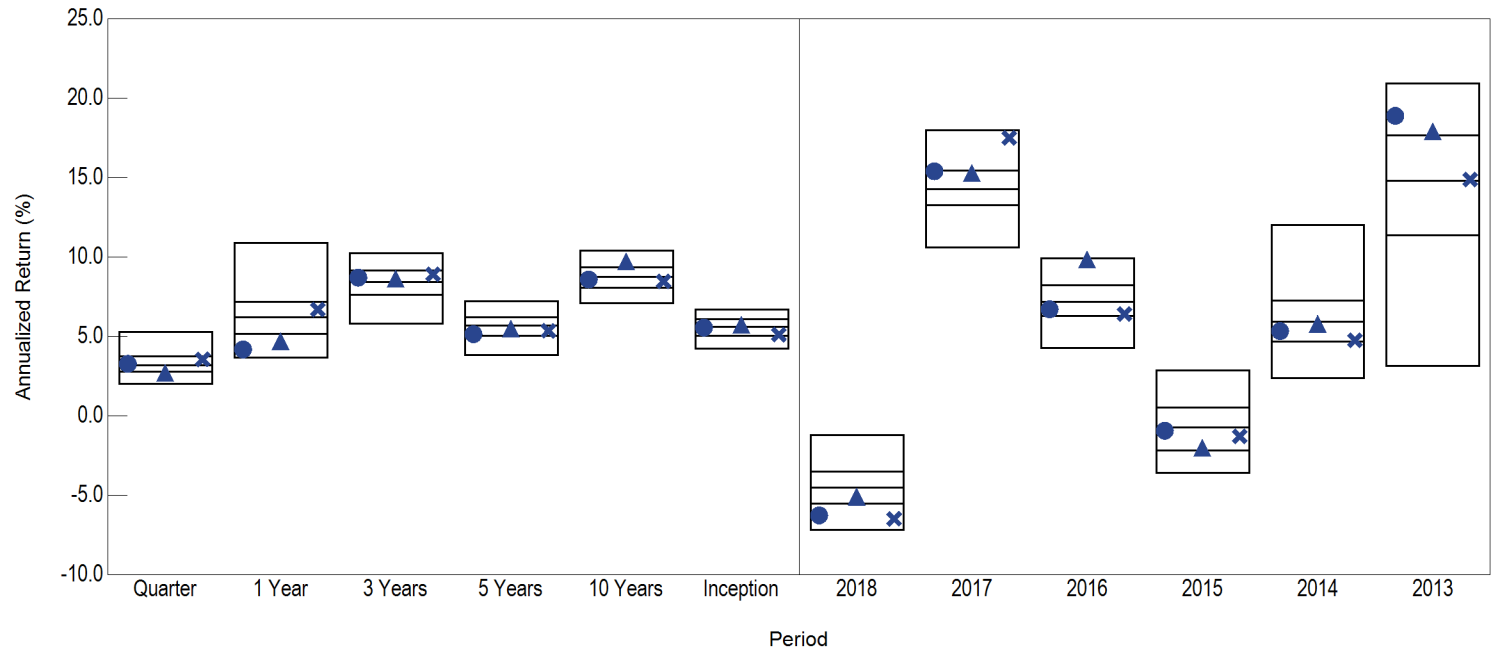
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	4.5%	4.1%	0.4%	0.1%	-0.2%	-0.1%
Domestic Equity	11.7%	12.3%	-0.6%	-0.2%	-0.1%	-0.3%
International Equity Total	9.2%	9.0%	0.2%	0.0%	0.0%	0.0%
Long Biased	5.2%	3.9%	1.3%	0.1%	0.0%	0.1%
Opportunistic Credit	1.9%	3.6%	-1.7%	-0.1%	0.1%	0.0%
Real Estate Total	9.6%	7.4%	2.3%	0.2%	0.0%	0.2%
Special Opportunities	8.7%	13.2%	-4.5%	-0.2%	0.2%	0.0%
Total	8.1%	8.2%	-0.1%	0.0%	0.0%	-0.1%

Attribution Effects
2 Years 6 Months Ending June 30, 2019



Attributions reflect new policy index

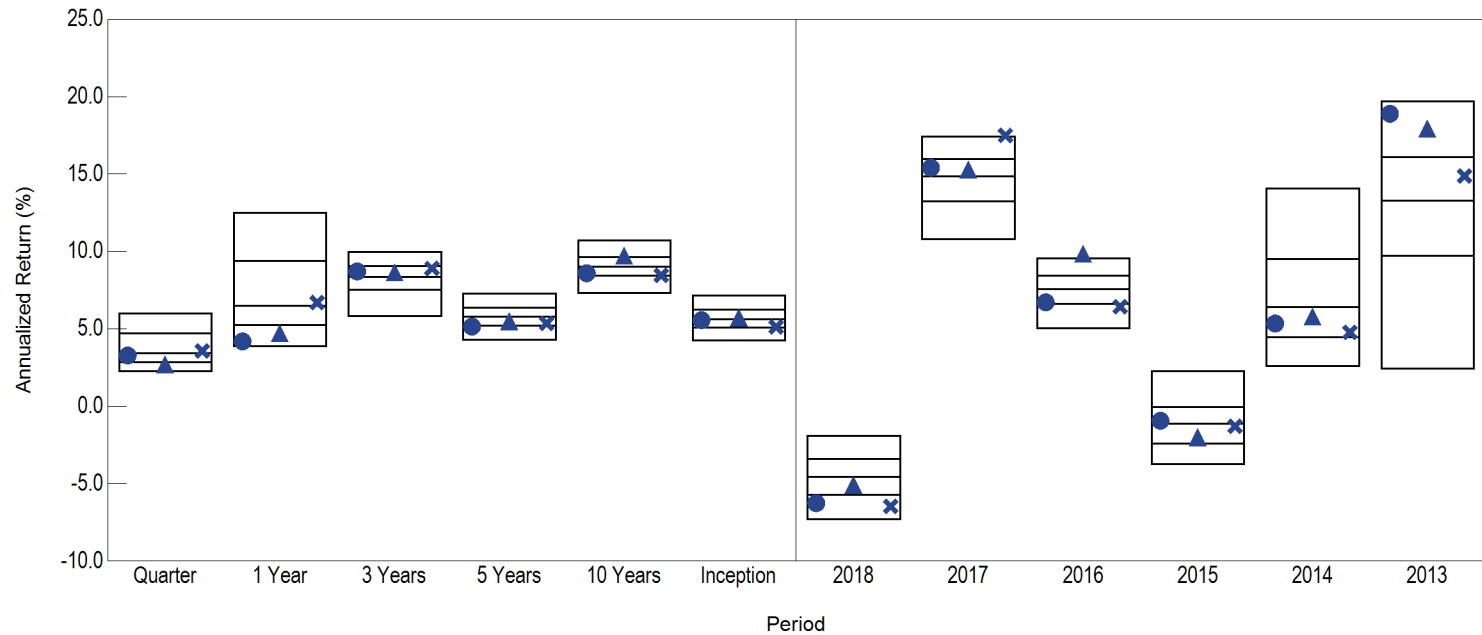
InvMetrics All DB \$50mm-\$250mm Net Return Comparison
Ending June 30, 2019



Return (Rank)

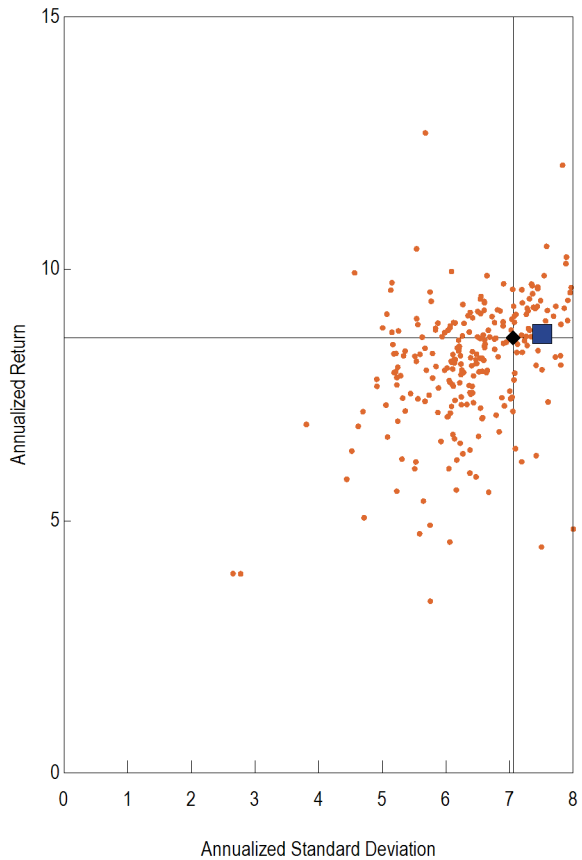
5th Percentile	5.3	10.9	10.3	7.2	10.4	6.7	-1.2	18.0	9.9	2.9	12.0	20.9
25th Percentile	3.8	7.2	9.2	6.3	9.4	6.1	-3.5	15.5	8.3	0.6	7.3	17.7
Median	3.2	6.2	8.5	5.7	8.8	5.6	-4.5	14.3	7.2	-0.7	6.0	14.9
75th Percentile	2.8	5.2	7.7	5.1	8.1	5.1	-5.5	13.3	6.3	-2.1	4.7	11.4
95th Percentile	2.0	3.7	5.8	3.9	7.1	4.3	-7.1	10.7	4.3	-3.5	2.4	3.2
# of Portfolios	433	429	409	392	305	270	538	326	321	330	285	268
● SERS Plan Total	3.3 (47)	4.2 (93)	8.7 (40)	5.1 (74)	8.6 (59)	5.6 (55)	-6.3 (87)	15.4 (27)	6.7 (66)	-0.9 (55)	5.3 (66)	18.9 (17)
▲ Policy Index Updated	2.7 (82)	4.7 (85)	8.6 (43)	5.5 (62)	9.7 (17)	5.7 (45)	-5.1 (68)	15.3 (29)	9.9 (6)	-2.0 (72)	5.8 (54)	17.9 (24)
× 70/30 ACWI/Barclays Aggregate Bond	3.6 (31)	6.7 (38)	8.9 (34)	5.4 (67)	8.5 (63)	5.1 (75)	-6.5 (89)	17.5 (8)	6.4 (73)	-1.3 (60)	4.8 (74)	14.9 (50)

InvMetrics All DB \$250mm-\$1B Net Return Comparison
Ending June 30, 2019

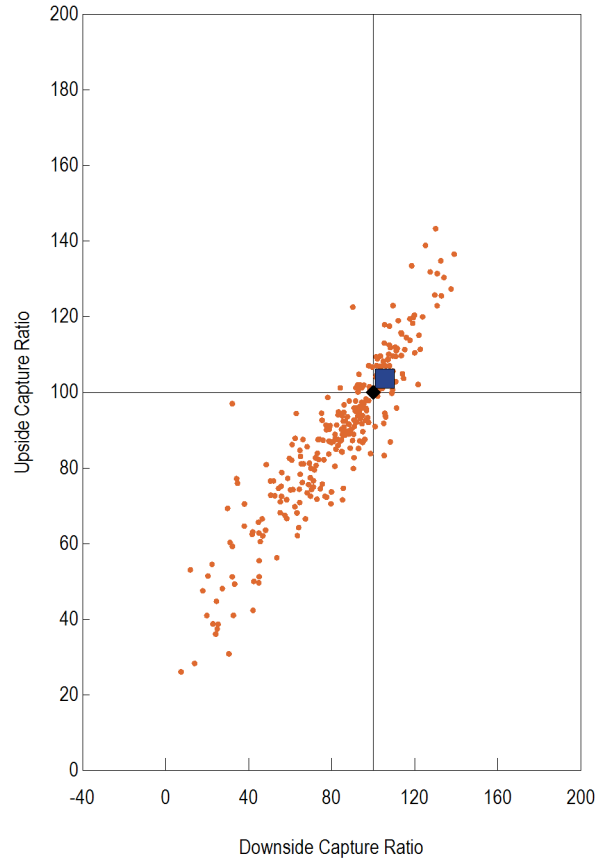


	Quarter	1 Year	3 Years	5 Years	10 Years	Inception	2018	2017	2016	2015	2014	2013
Return (Rank)												
5th Percentile	6.0	12.5	10.0	7.3	10.7	7.2	-1.9	17.4	9.6	2.2	14.1	19.7
25th Percentile	4.8	9.4	9.1	6.4	9.7	6.3	-3.4	16.0	8.5	0.0	9.6	16.1
Median	3.5	6.5	8.4	5.8	9.0	5.7	-4.5	14.9	7.6	-1.1	6.4	13.3
75th Percentile	2.9	5.3	7.6	5.2	8.5	5.1	-5.7	13.3	6.6	-2.4	4.5	9.8
95th Percentile	2.3	3.9	5.9	4.3	7.4	4.3	-7.2	10.8	5.1	-3.7	2.6	2.5
# of Portfolios	298	296	279	263	214	185	326	237	248	231	212	190
● SERS Plan Total	3.3 (54)	4.2 (93)	8.7 (38)	5.1 (80)	8.6 (72)	5.6 (56)	-6.3 (83)	15.4 (42)	6.7 (74)	-0.9 (47)	5.3 (63)	18.9 (8)
▲ Policy Index Updated	2.7 (84)	4.7 (85)	8.6 (42)	5.5 (67)	9.7 (24)	5.7 (49)	-5.1 (62)	15.3 (43)	9.9 (4)	-2.0 (69)	5.8 (61)	17.9 (14)
✕ 70/30 ACWI/Barclays Aggregate Bond	3.6 (48)	6.7 (48)	8.9 (32)	5.4 (73)	8.5 (77)	5.1 (75)	-6.5 (86)	17.5 (4)	6.4 (78)	-1.3 (56)	4.8 (73)	14.9 (37)

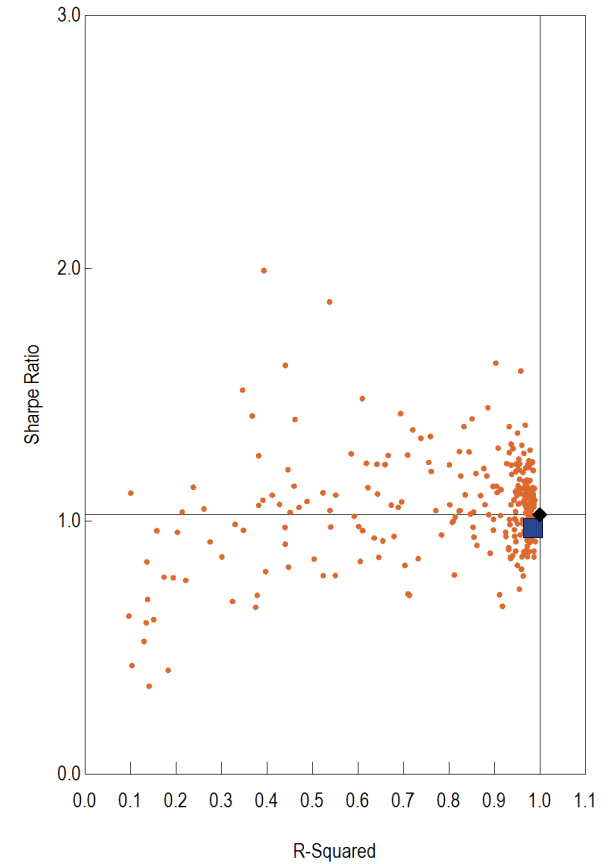
Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2019



Upside Capture Ratio vs. Downside Capture Ratio
3 Years Ending June 30, 2019



Sharpe Ratio vs. R-Squared
3 Years Ending June 30, 2019

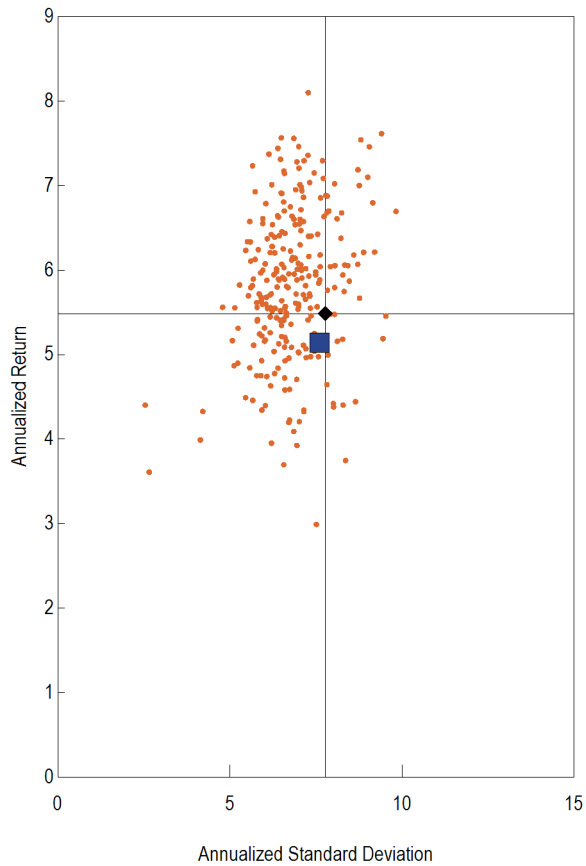


- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

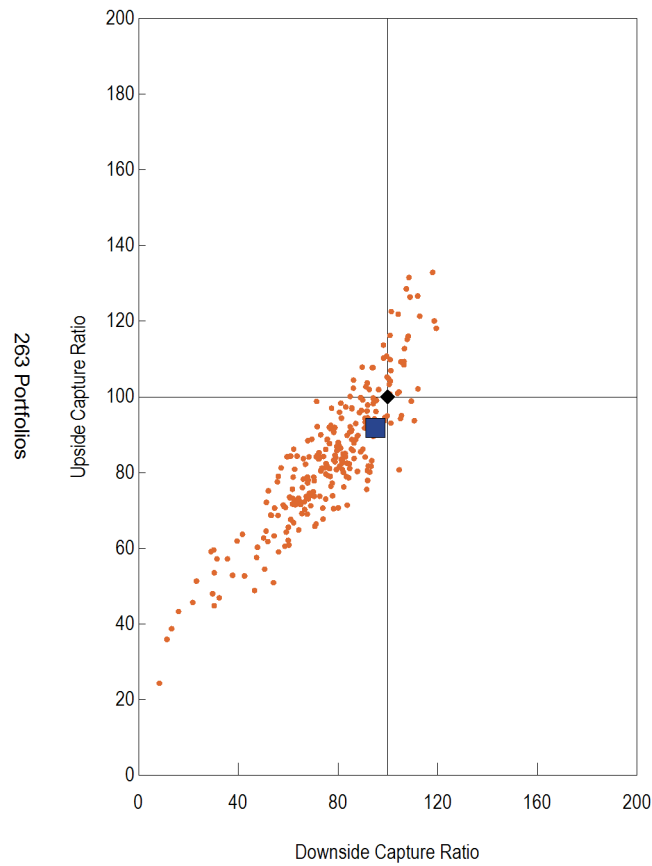
- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

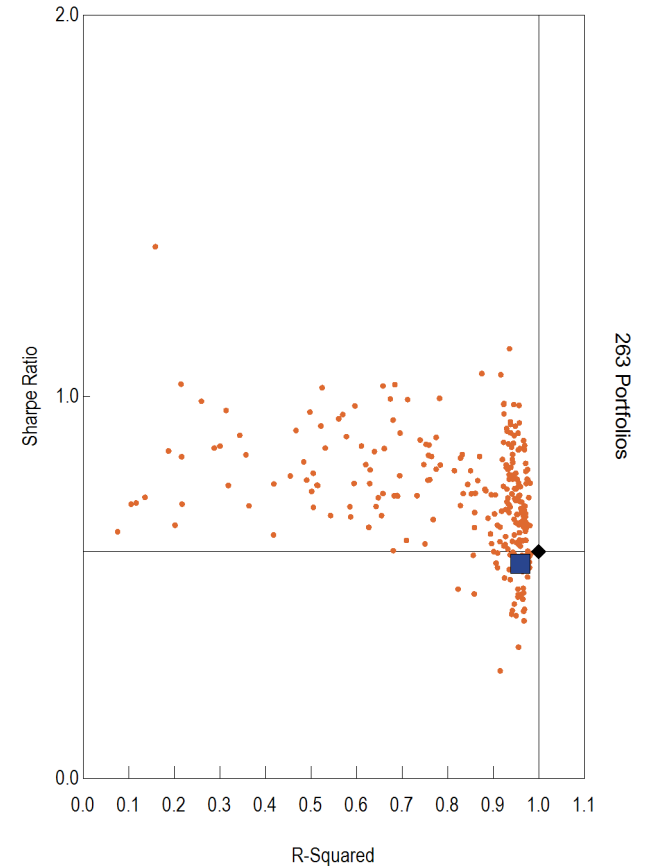
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2019



Upside Capture Ratio vs. Downside Capture Ratio
5 Years Ending June 30, 2019



Sharpe Ratio vs. R-Squared
5 Years Ending June 30, 2019

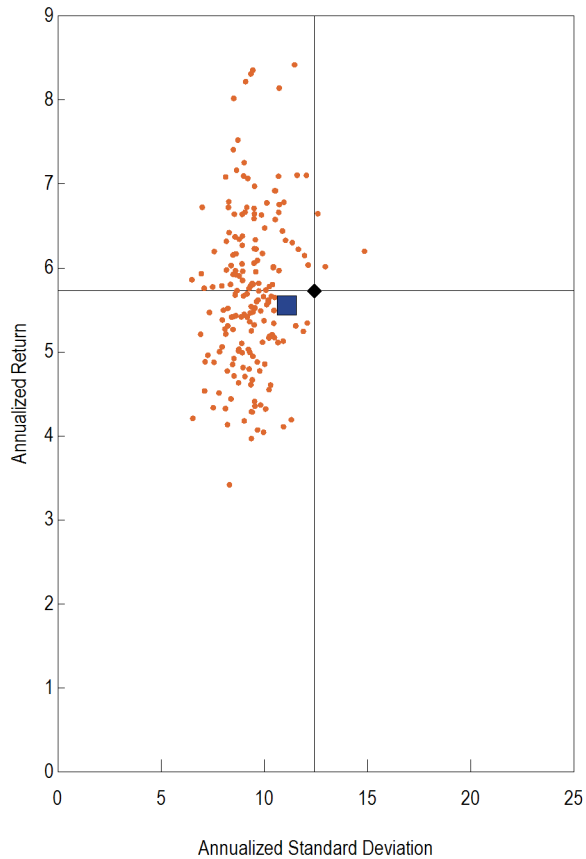


- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

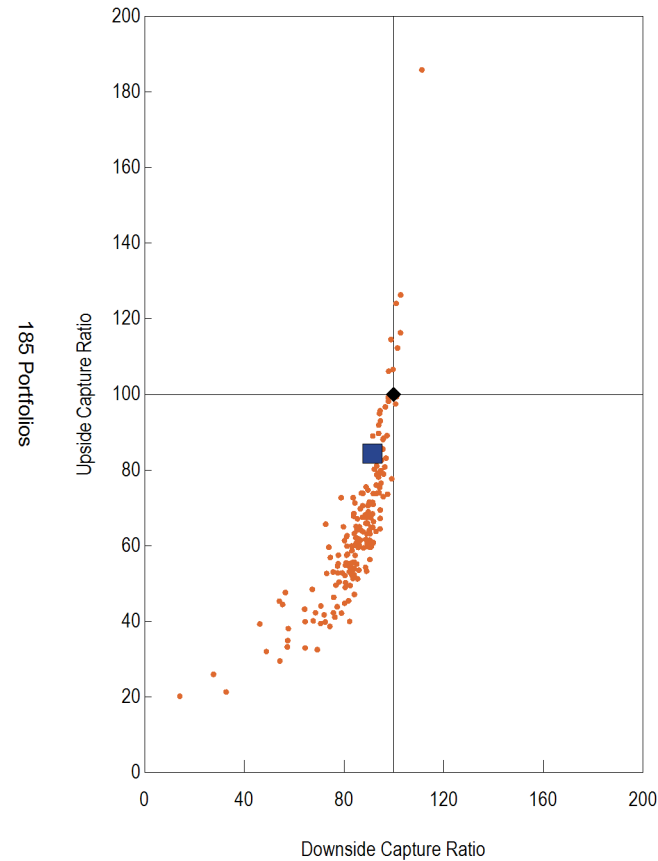
- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

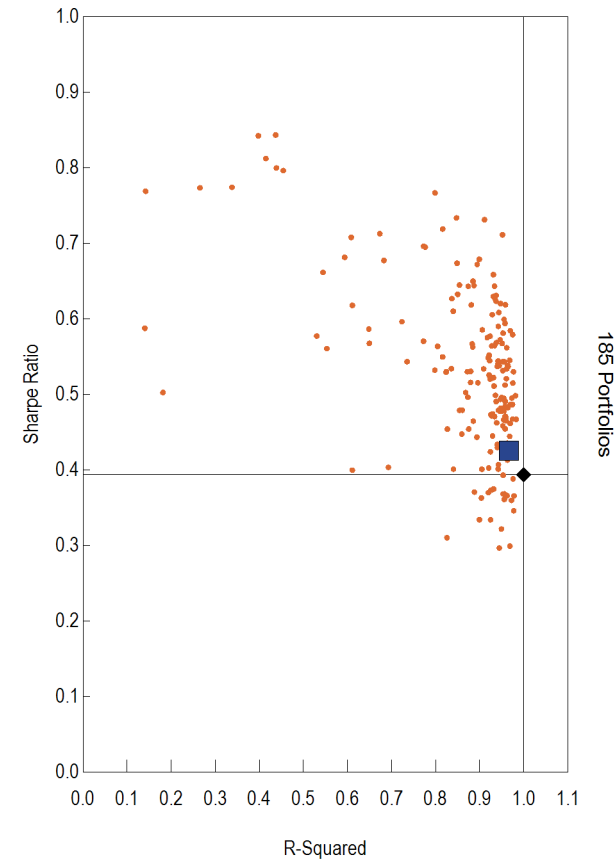
Annualized Return vs. Annualized Standard Deviation
12 Years 6 Months Ending June 30, 2019



Upside Capture Ratio vs. Downside Capture Ratio
12 Years 6 Months Ending June 30, 2019



Sharpe Ratio vs. R-Squared
12 Years 6 Months Ending June 30, 2019



- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

Spokane Employees' Retirement System

As of June 30, 2019

Asset Class Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Capital Preservation	2.63	6.58	5.36	5.21	3.14	-0.94	5.85	8.12	-1.74	1.65	2.70	3.68	Jul-12
Capital Preservation Index	<u>2.49</u>	<u>6.55</u>	<u>5.88</u>	<u>4.00</u>	<u>3.09</u>	<u>-0.72</u>	<u>4.60</u>	<u>5.43</u>	<u>-0.58</u>	<u>4.23</u>	<u>3.33</u>	<u>3.77</u>	Jul-12
Over/Under	0.14	0.03	-0.52	1.21	0.05	-0.22	1.25	2.69	-1.16	-2.58	-0.63	-0.09	
Total Return Bond	3.42	6.66	8.38	--	--	-0.09	4.20	--	--	--	--	2.94	Sep-16
BBgBarc US Aggregate TR	<u>3.08</u>	<u>6.11</u>	<u>7.87</u>	<u>2.31</u>	<u>2.95</u>	<u>0.01</u>	<u>3.54</u>	<u>2.65</u>	<u>0.55</u>	<u>5.97</u>	<u>-2.02</u>	<u>2.36</u>	Sep-16
Over/Under	0.34	0.55	0.51			-0.10	0.66					0.58	
Intermediate Core Bond MStar MF Rank	10	26	10	--	--	38	38	--	--	--	--	9	Sep-16
High Yield	1.74	7.90	4.44	6.83	3.35	-3.46	8.22	16.67	-7.05	0.68	7.00	5.23	Jul-12
BBgBarc US High Yield TR	<u>2.50</u>	<u>9.94</u>	<u>7.48</u>	<u>7.52</u>	<u>4.70</u>	<u>-2.08</u>	<u>7.50</u>	<u>17.13</u>	<u>-4.47</u>	<u>2.45</u>	<u>7.44</u>	<u>6.35</u>	Jul-12
Over/Under	-0.76	-2.04	-3.04	-0.69	-1.35	-1.38	0.72	-0.46	-2.58	-1.77	-0.44	-1.12	
High Yield Bond MStar MF Rank	86	81	89	50	75	74	18	13	92	70	51	77	Jul-12
Absolute Return	2.43	6.34	3.19	5.40	3.73	-1.11	5.33	7.75	0.29	3.15	4.65	4.13	Jul-12
HFRI FOF: Conservative Index	<u>1.71</u>	<u>4.95</u>	<u>2.35</u>	<u>3.89</u>	<u>2.17</u>	<u>-0.87</u>	<u>4.12</u>	<u>1.89</u>	<u>0.37</u>	<u>3.14</u>	<u>7.70</u>	<u>3.51</u>	Jul-12
Over/Under	0.72	1.39	0.84	1.51	1.56	-0.24	1.21	5.86	-0.08	0.01	-3.05	0.62	
BBgBarc US Aggregate TR	<u>3.08</u>	<u>6.11</u>	<u>7.87</u>	<u>2.31</u>	<u>2.95</u>	<u>0.01</u>	<u>3.54</u>	<u>2.65</u>	<u>0.55</u>	<u>5.97</u>	<u>-2.02</u>	<u>2.62</u>	Jul-12
Domestic Equity	4.79	19.32	5.91	13.45	8.86	-7.80	19.86	10.91	-0.32	11.10	36.38	12.95	Jul-12
Domestic Equity Index	<u>3.84</u>	<u>18.81</u>	<u>7.42</u>	<u>13.60</u>	<u>9.71</u>	<u>-6.30</u>	<u>20.11</u>	<u>13.92</u>	<u>-0.06</u>	<u>11.44</u>	<u>33.91</u>	<u>13.52</u>	Jul-12
Over/Under	0.95	0.51	-1.51	-0.15	-0.85	-1.50	-0.25	-3.01	-0.26	-0.34	2.47	-0.57	
All Cap Blend MStar MF Rank	18	23	45	30	35	45	37	70	33	38	35	37	Jul-12
Domestic Large Cap Equity	5.25	19.22	7.75	13.78	9.00	-7.70	22.54	8.24	-0.32	12.85	34.81	8.08	Apr-07
S&P 500	<u>4.30</u>	<u>18.54</u>	<u>10.42</u>	<u>14.19</u>	<u>10.71</u>	<u>-4.38</u>	<u>21.83</u>	<u>11.96</u>	<u>1.38</u>	<u>13.69</u>	<u>32.39</u>	<u>8.40</u>	Apr-07
Over/Under	0.95	0.68	-2.67	-0.41	-1.71	-3.32	0.71	-3.72	-1.70	-0.84	2.42	-0.32	
Large Blend MStar MF Rank	17	21	61	41	58	78	24	83	53	39	26	48	Apr-07
Domestic Small/Mid Equity	3.87	19.52	2.44	12.72	8.51	-8.05	14.91	15.37	-0.39	8.69	38.60	12.79	Jul-12
Russell 2500	<u>2.96</u>	<u>19.25</u>	<u>1.77</u>	<u>12.34</u>	<u>7.66</u>	<u>-10.00</u>	<u>16.81</u>	<u>17.59</u>	<u>-2.90</u>	<u>7.07</u>	<u>36.80</u>	<u>12.51</u>	Jul-12
Over/Under	0.91	0.27	0.67	0.38	0.85	1.95	-1.90	-2.22	2.51	1.62	1.80	0.28	
SMID Blend MStar MF Rank	27	25	24	17	10	12	39	75	10	24	34	16	Jul-12

Spokane Employees' Retirement System

As of June 30, 2019

Asset Class Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
International Equity Total	3.27	15.19	0.63	9.26	3.26	-15.78	28.45	3.91	-1.32	-3.58	20.93	4.43	Apr-07
International Equity Index	2.34	12.83	-0.05	9.29	2.36	-14.96	29.35	5.34	-5.49	-3.63	13.48	2.67	Apr-07
Over/Under	0.93	2.36	0.68	-0.03	0.90	-0.82	-0.90	-1.43	4.17	0.05	7.45	1.76	
Foreign MStar MF Rank	47	39	35	33	32	50	42	24	67	32	56	18	Apr-07
International Large Cap Equity	3.93	16.00	2.32	9.85	3.88	-15.14	27.50	4.02	-1.13	-1.38	24.43	8.92	Jul-12
MSCI ACWI ex USA	2.98	13.60	1.29	9.39	2.16	-14.20	27.19	4.50	-5.66	-3.87	15.29	6.36	Jul-12
Over/Under	0.95	2.40	1.03	0.46	1.72	-0.94	0.31	-0.48	4.53	2.49	9.14	2.56	
Foreign Large Blend MStar MF Rank	19	15	15	14	6	51	31	23	56	12	14	4	Jul-12
International Small/Mid Cap Equity	3.14	15.99	-6.71	9.34	2.73	-20.33	37.08	-0.68	7.56	-12.10	28.79	8.34	Jul-12
MSCI ACWI xUS Small (net)	1.21	11.60	-5.94	7.76	2.77	-18.20	31.65	3.91	2.60	-4.03	19.73	7.66	Jul-12
Over/Under	1.93	4.39	-0.77	1.58	-0.04	-2.13	5.43	-4.59	4.96	-8.07	9.06	0.68	
Emerging Markets Equity	0.73	11.00	0.57	6.34	1.27	-14.62	23.58	7.03	-8.73	-2.07	6.06	4.02	Jul-12
MSCI Emerging Markets	0.61	10.59	1.21	10.66	2.49	-14.58	37.28	11.19	-14.92	-2.19	-2.60	4.15	Jul-12
Over/Under	0.12	0.41	-0.64	-4.32	-1.22	-0.04	-13.70	-4.16	6.19	0.12	8.66	-0.13	
Diversified Emerging Mkts MStar MF Rank	72	68	53	84	73	28	94	56	16	49	14	58	Jul-12
Long Biased	2.22	9.45	6.33	4.85	2.97	2.43	1.19	-2.99	4.04	3.62	9.56	4.45	Jul-12
HFRI Fund of Funds Composite Index	1.69	6.38	1.36	4.32	2.23	-4.02	7.77	0.51	-0.27	3.36	8.96	3.70	Jul-12
Over/Under	0.53	3.07	4.97	0.53	0.74	6.45	-6.58	-3.50	4.31	0.26	0.60	0.75	
S&P 500	4.30	18.54	10.42	14.19	10.71	-4.38	21.83	11.96	1.38	13.69	32.39	13.98	Jul-12
Opportunistic Credit	1.21	3.74	-4.50	4.32	3.66	-5.68	7.08	14.52	2.35	2.32	--	4.80	Oct-13
HFRI ED: Distressed/Restructuring Index	1.27	4.53	-0.12	6.71	1.57	-1.70	6.25	15.15	-8.06	-1.39	14.05	3.06	Oct-13
Over/Under	-0.06	-0.79	-4.38	-2.39	2.09	-3.98	0.83	-0.63	10.41	3.71		1.74	
Real Estate Total	2.40	10.36	11.23	7.75	9.73	3.68	10.01	8.09	6.66	25.00	8.71	5.77	Apr-07
NCREIF-ODCE	0.99	2.42	6.41	7.57	9.75	8.35	7.62	8.76	15.02	12.48	13.94	5.92	Apr-07
Over/Under	1.41	7.94	4.82	0.18	-0.02	-4.67	2.39	-0.67	-8.36	12.52	-5.23	-0.15	
FTSE NAREIT All REIT	1.08	17.97	11.52	5.81	8.56	-4.42	9.27	9.28	2.29	27.15	3.21	5.43	Apr-07
US Real Estate Equity Rank	35	99	63	7	20	1	11	32	7	94	7	66	Apr-07
Special Opportunities	2.94	10.95	-1.81	5.49	2.52	-11.43	25.32	-21.90	2.13	25.88	31.60	7.11	Jul-12
Russell 3000	4.10	18.71	8.98	14.02	10.19	-5.24	21.13	12.73	0.48	12.56	33.55	13.79	Jul-12
Over/Under	-1.16	-7.76	-10.79	-8.53	-7.67	-6.19	4.19	-34.63	1.65	13.32	-1.95	-6.68	



Manager Commentary

- **Vanguard Mid Cap Growth** – This is a multi-manager fund currently sub-advised by Frontier Capital (45% AUM), Wellington (5%) and RS Investments (50%). The fund was initially placed on watch for underperformance and subsequently due to manager turnover. In December of 2016, VG replaced long-time manager Chartwell Partners with RS Investments based on a combination of personnel changes, performance and style drift. In December of 2018 VG replaced long-time manager William Blair with Frontier and Wellington citing personnel turnover and lack of acceptable succession planning despite strong performance. Recent performance had improved significantly setting the stage to remove the strategy from watch. However, the recent manager turnover warrants the fund remain on-watch despite performance improvements.
- **Jackson Square Large Growth** – This large growth strategy has been a consistent top performer placing at or above median in its peer universe in 8 of the last 10 calendar years. However, in 2016 a combination of style headwind (underweight to cyclical growth) and poor stock selection in a couple of their top holdings led them to dramatically underperform for the year. There have not been any fundamental changes to their personnel or process, but performance post 2016 has been largely mediocre. At this point we believe we have better alternatives and recommend a search to replace.
- **Sterling Mid Cap Value** – Sterling Mid Value has just recently gone on watch status for underperformance, including significant underperformance (-600bps) in the final two quarters of 2018. Part of this underperformance is due to a structural (long-term/consistent) underweight to Utilities and REITS (top-performing sectors in 4Q18). They simply feel that these sectors of the market generate below average returns on capital over a full cycle. While we agree with this assessment, it creates additional tracking error vs. the policy index and peer group that investors need to be aware of. As expected, they have performed well in the recent market rebound to start 2019. There are no fundamental changes to the strategy or key research personnel.
- **OrbiMed Partners** – This dedicated long-biased healthcare strategy is on watch for poor performance. They have taken a strong macro position that biotechnology stocks are trading near all-time low valuations versus traditional pharmaceutical companies. As a result, they have structured a portfolio that is heavily long-biased biotech stocks and short pharmaceutical stocks. While we tend to agree with their relative valuation assessment, the current portfolio construction has created a highly volatile return pattern that is dependent on the reversion of valuation spreads between biotech and pharmaceutical stocks. Due to the excessive volatility, we have recently trimmed the position size.

- **Hotchkis & Wiley Diversified Value** – The Fund was placed on watch 1Q19 for performance in violation of policy parameters. This was triggered by extremely poor performance in 4Q2018 in which the strategy underperformed its style benchmark by nearly 700 bps and landed in the bottom decile of its peer universe. The drivers of short-term performance are large overweights to the poorly performing Energy and Financials sectors. The manager continues to find the best values in these out of favor sectors. The Fund has rebounded strongly YTD 2019 and while 5-year performance continues to underperform, longer-term performance has been exceptional. Historically, the relatively concentrated, deep value nature of this strategy has led to significant tracking error vs. both style benchmark and peers requiring a patient long-term investment approach.
- **Frontier Phocas Small Cap Value** – The Fund was placed on watch 1Q19 for performance in violation of policy parameters. Like Hotchkis & Wiley, Phocas continues to find their best ideas in Energy and Financials two of the worst performing sectors in 2018. Historically, the Fund has generated its best alpha in both sectors, and we don't believe this will be any different going forward. There has been no turnover within the research team and the lead portfolio manager has been on the Fund since its inception.
- **Post Limited Term HiYld** – The Fund was placed on watch 2Q19 for personnel change. Lead PM and CIO Henry Chyung announced deteriorating health conditions that prevent him from continuing in his current capacity. He will be replaced by Jeff Stroll who has been working with Mr. Chyung for the past seven years and spent the last 2 years mentoring with Mr. Chyung on the higher-level portfolio and risk management aspects of his CIO role. The team will retain the hands on team approach where sector PM's are really high level research analysts and very hands on and in the weeds. Post has hired a very senior experienced sector PM from MacKay Shields to take over much of Mr. Stroll's sector specific PM responsibilities and allow him to elevate to higher PM functions. The strategy has been placed on watch given the high-level role Mr. Chyung served. However, the transition would appear to be very well planned.

Spokane Employees' Retirement System

As of June 30, 2019

Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
Capital Preservation															
Sterling Core Bond	3.50	6.82	8.16	3.02	3.27	4.80	-0.35	4.33	3.75	0.54	5.99	-0.97	6.14	2.75	Aug-16
BBgBarc US Aggregate TR	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	2.16	Aug-16
Excess Return	0.42	0.71	0.29	0.71	0.32	0.90	-0.36	0.79	1.10	-0.01	0.02	1.05	1.93	0.59	
Intermediate Core Bond MStar MF Rank	7	20	18	8	9	16	53	34	40	29	35	35	66	12	Aug-16
Hotchkis & Wiley High Yield	1.74	7.97	4.38	6.87	3.78	8.98	-3.43	8.24	16.02	-4.30	1.09	8.71	17.96	4.39	Jun-15
BBgBarc US High Yield TR	2.50	9.94	7.48	7.52	4.70	9.24	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	5.50	Jun-15
Excess Return	-0.76	-1.97	-3.10	-0.65	-0.92	-0.26	-1.35	0.74	-1.11	0.17	-1.36	1.27	2.15	-1.11	
High Yield Bond MStar MF Rank	86	80	89	47	57	20	73	17	20	61	65	20	11	62	Jun-15
Absolute Return															
Post Lmt'd Term High Yield	1.59	5.45	5.47	3.77	3.07	6.13	0.34	3.19	5.66	0.84	2.96	7.49	9.61	5.37	Jun-10
HFRI FOF: Conservative Index	1.71	4.95	2.35	3.89	2.17	3.14	-0.87	4.12	1.89	0.37	3.14	7.70	4.22	2.93	Jun-10
Excess Return	-0.12	0.50	3.12	-0.12	0.90	2.99	1.21	-0.93	3.77	0.47	-0.18	-0.21	5.39	2.44	
BBgBarc US Aggregate TR	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.29	Jun-10
Rimrock Low Volatility Offshore	0.96	2.48	2.68	4.45	2.41	6.56	2.01	4.40	4.90	-1.90	2.31	7.82	11.33	4.82	Jun-10
HFRI FOF: Conservative Index	1.71	4.95	2.35	3.89	2.17	3.14	-0.87	4.12	1.89	0.37	3.14	7.70	4.22	2.93	Jun-10
Excess Return	-0.75	-2.47	0.33	0.56	0.24	3.42	2.88	0.28	3.01	-2.27	-0.83	0.12	7.11	1.89	
BBgBarc US Aggregate TR	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.29	Jun-10
Castine Partners II **	4.47	10.63	-1.74	8.57	7.13	4.39	-7.34	9.34	15.57	6.57	7.48	6.16	2.53	5.91	Jun-11
HFRI FOF: Conservative Index	1.71	4.95	2.35	3.89	2.17	3.14	-0.87	4.12	1.89	0.37	3.14	7.70	4.22	2.65	Jun-11
Excess Return	2.76	5.68	-4.09	4.68	4.96	1.25	-6.47	5.22	13.68	6.20	4.34	-1.54	-1.69	3.26	
BBgBarc US Aggregate TR	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.22	Jun-11
Polar Long Short Fund	2.52	7.80	7.84	4.77	4.27	4.20	0.24	4.20	6.60	1.73	3.46	5.60	4.42	4.72	Sep-11
HFRI FOF: Conservative Index	1.71	4.95	2.35	3.89	2.17	3.14	-0.87	4.12	1.89	0.37	3.14	7.70	4.22	3.27	Sep-11
Excess Return	0.81	2.85	5.49	0.88	2.10	1.06	1.11	0.08	4.71	1.36	0.32	-2.10	0.20	1.45	
BBgBarc US Aggregate TR	3.08	6.11	7.87	2.31	2.95	3.90	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	2.82	Sep-11

** Performance prior to 7/1/18 is representative of Castine Partners I.

Spokane Employees' Retirement System

As of June 30, 2019

Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
Domestic Equity															
Large Cap Equity															
Hotchkis & Wiley Diversified Value I	4.42	19.47	2.08	12.80	6.68	13.11	-14.74	18.39	19.94	-7.90	12.74	36.54	19.78	10.58	Sep-08
Russell 1000 Value	<u>3.84</u>	<u>16.24</u>	<u>8.46</u>	<u>10.19</u>	<u>7.46</u>	<u>13.19</u>	<u>-8.27</u>	<u>13.66</u>	<u>17.34</u>	<u>-3.83</u>	<u>13.45</u>	<u>32.53</u>	<u>17.51</u>	<u>9.33</u>	Sep-08
Excess Return	0.58	3.23	-6.38	2.61	-0.78	-0.08	-6.47	4.73	2.60	-4.07	-0.71	4.01	2.27	1.25	
S&P 500	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	11.34	Sep-08
Large Value MStar MF Rank	19	5	88	8	63	32	97	23	9	90	20	14	8	14	Sep-08
Fidelity S&P 500 Inst	4.30	18.54	10.41	14.17	10.70	14.69	-4.40	21.81	11.97	1.38	13.66	32.35	15.98	18.54	Jan-19
S&P 500	<u>4.30</u>	<u>18.54</u>	<u>10.42</u>	<u>14.19</u>	<u>10.71</u>	<u>14.70</u>	<u>-4.38</u>	<u>21.83</u>	<u>11.96</u>	<u>1.38</u>	<u>13.69</u>	<u>32.39</u>	<u>16.00</u>	<u>18.54</u>	Jan-19
Excess Return	0.00	0.00	-0.01	-0.02	-0.01	-0.01	-0.02	-0.02	0.01	0.00	-0.03	-0.04	-0.02	0.00	
Large Blend MStar MF Rank	38	35	26	20	11	17	22	32	27	24	21	45	41	35	Jan-19
Jackson Square Large Cap Growth Eq	7.64	20.33	10.90	15.57	9.98	15.10	-2.84	28.42	-5.03	5.19	12.76	34.81	16.51	13.15	Sep-12
Russell 1000 Growth	<u>4.64</u>	<u>21.49</u>	<u>11.56</u>	<u>18.07</u>	<u>13.39</u>	<u>16.28</u>	<u>-1.51</u>	<u>30.21</u>	<u>7.08</u>	<u>5.67</u>	<u>13.05</u>	<u>33.48</u>	<u>15.26</u>	<u>15.50</u>	Sep-12
Excess Return	3.00	-1.16	-0.66	-2.50	-3.41	-1.18	-1.33	-1.79	-12.11	-0.48	-0.29	1.33	1.25	-2.35	
S&P 500	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	13.74	Sep-12
Large Growth MStar MF Rank	4	70	48	73	79	52	62	52	96	44	29	43	38	78	Sep-12
Small/Mid Cap Equity															
Sterling Mid Cap Value	4.29	19.53	-2.51	9.05	5.61	12.95	-17.67	14.27	16.97	-1.71	5.85	46.25	12.50	10.22	Sep-08
Russell MidCap Value	<u>3.19</u>	<u>18.02</u>	<u>3.68</u>	<u>8.95</u>	<u>6.72</u>	<u>14.56</u>	<u>-12.29</u>	<u>13.34</u>	<u>20.00</u>	<u>-4.78</u>	<u>14.75</u>	<u>33.46</u>	<u>18.51</u>	<u>10.50</u>	Sep-08
Excess Return	1.10	1.51	-6.19	0.10	-1.11	-1.61	-5.38	0.93	-3.03	3.07	-8.90	12.79	-6.01	-0.28	
Russell MidCap	4.13	21.35	7.82	12.16	8.63	15.16	-9.06	18.52	13.80	-2.44	13.22	34.76	17.28	11.68	Sep-08
Mid-Cap Value MStar MF Rank	25	14	81	59	54	62	85	37	69	19	87	2	85	46	Sep-08
Fidelity Mid Cap Index	4.14	21.36	7.88	12.16	8.64	15.20	-9.05	18.47	13.86	-2.44	13.11	35.17	16.01	21.36	Jan-19
Russell MidCap	<u>4.13</u>	<u>21.35</u>	<u>7.82</u>	<u>12.16</u>	<u>8.63</u>	<u>15.16</u>	<u>-9.06</u>	<u>18.52</u>	<u>13.80</u>	<u>-2.44</u>	<u>13.22</u>	<u>34.76</u>	<u>17.28</u>	<u>21.35</u>	Jan-19
Excess Return	0.01	0.01	0.06	0.00	0.01	0.04	0.01	-0.05	0.06	0.00	-0.11	0.41	-1.27	0.01	
Mid-Cap Blend MStar MF Rank	32	13	13	26	10	4	24	22	61	37	8	47	62	13	Jan-19

Spokane Employees' Retirement System

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Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
Vanguard Mid Cap Growth	5.74	27.67	13.30	16.36	10.00	14.90	-3.29	22.01	0.44	0.21	10.86	34.15	14.84	10.57	Jun-14
Russell MidCap Growth	<u>5.40</u>	<u>26.08</u>	<u>13.94</u>	<u>16.49</u>	<u>11.10</u>	<u>16.02</u>	<u>-4.75</u>	<u>25.27</u>	<u>7.33</u>	<u>-0.20</u>	<u>11.90</u>	<u>35.74</u>	<u>15.81</u>	<u>11.59</u>	Jun-14
Excess Return	0.34	1.59	-0.64	-0.13	-1.10	-1.12	1.46	-3.26	-6.89	0.41	-1.04	-1.59	-0.97	-1.02	
Mid-Cap Growth MStar MF Rank	56	31	36	46	63	55	29	72	93	41	21	61	47	62	Jun-14
Frontier Phocas Small Cap Value I	2.15	16.39	-7.34	7.27	4.21	12.61	-17.52	8.17	23.31	-4.35	7.19	45.63	9.75	10.28	Dec-11
Russell 2000 Value	<u>1.37</u>	<u>13.47</u>	<u>-6.24</u>	<u>9.81</u>	<u>5.39</u>	<u>12.40</u>	<u>-12.86</u>	<u>7.84</u>	<u>31.74</u>	<u>-7.47</u>	<u>4.22</u>	<u>34.52</u>	<u>18.05</u>	<u>10.85</u>	Dec-11
Excess Return	0.78	2.92	-1.10	-2.54	-1.18	0.21	-4.66	0.33	-8.43	3.12	2.97	11.11	-8.30	-0.57	
Russell 2000	2.10	16.98	-3.31	12.30	7.06	13.45	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	11.99	Dec-11
Small Value MStar MF Rank	29	22	56	73	56	41	78	60	71	36	23	3	95	49	Dec-11
Fidelity Small Cap Index	2.13	17.00	-3.21	12.46	7.28	14.22	-10.88	14.85	21.63	-4.24	5.19	37.80	18.26	17.00	Jan-19
Russell 2000	<u>2.10</u>	<u>16.98</u>	<u>-3.31</u>	<u>12.30</u>	<u>7.06</u>	<u>13.45</u>	<u>-11.01</u>	<u>14.65</u>	<u>21.31</u>	<u>-4.41</u>	<u>4.89</u>	<u>38.82</u>	<u>16.35</u>	<u>16.98</u>	Jan-19
Excess Return	0.03	0.02	0.10	0.16	0.22	0.77	0.13	0.20	0.32	0.17	0.30	-1.02	1.91	0.02	
Small Blend MStar MF Rank	55	43	46	20	32	22	33	25	41	49	47	56	22	43	Jan-19
Champlain Small Cap	3.49	19.21	1.60	15.59	11.02	14.72	-3.03	10.90	27.93	-0.65	4.43	36.61	11.06	11.34	Sep-08
Russell 2000	<u>2.10</u>	<u>16.98</u>	<u>-3.31</u>	<u>12.30</u>	<u>7.06</u>	<u>13.45</u>	<u>-11.01</u>	<u>14.65</u>	<u>21.31</u>	<u>-4.41</u>	<u>4.89</u>	<u>38.82</u>	<u>16.35</u>	<u>9.60</u>	Sep-08
Excess Return	1.39	2.23	4.91	3.29	3.96	1.27	7.98	-3.75	6.62	3.76	-0.46	-2.21	-5.29	1.74	
Russell 2000 Growth	2.75	20.36	-0.49	14.69	8.63	14.41	-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	11.11	Sep-08
Small Blend MStar MF Rank	29	23	16	2	1	13	1	65	8	11	60	68	88	7	Sep-08
Bridge City Small Growth	3.85	16.36	5.05	16.38	12.50	17.25	0.92	15.93	17.96	6.81	7.06	40.81	10.99	15.09	Dec-11
Russell 2000 Growth	<u>2.75</u>	<u>20.36</u>	<u>-0.49</u>	<u>14.69</u>	<u>8.63</u>	<u>14.41</u>	<u>-9.31</u>	<u>22.17</u>	<u>11.32</u>	<u>-1.38</u>	<u>5.60</u>	<u>43.30</u>	<u>14.59</u>	<u>13.23</u>	Dec-11
Excess Return	1.10	-4.00	5.54	1.69	3.87	2.84	10.23	-6.24	6.64	8.19	1.46	-2.49	-3.60	1.86	
Russell 2000	2.10	16.98	-3.31	12.30	7.06	13.45	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	12.03	Dec-11
Small Growth MStar MF Rank	55	85	46	49	15	9	15	77	20	4	15	61	79	25	Dec-11

Spokane Employees' Retirement System

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Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
International Equity															
Artisan International Value	4.00	14.45	2.60	8.50	3.18	10.46	-15.42	24.06	5.74	-1.49	-0.39	30.72	22.48	8.85	Sep-08
MSCI ACWI ex USA Value	1.57	10.02	-0.07	8.93	0.29	5.43	-13.97	22.66	8.92	-10.06	-5.10	15.04	16.97	4.00	Sep-08
Excess Return	2.43	4.43	2.67	-0.43	2.89	5.03	-1.45	1.40	-3.18	8.57	4.71	15.68	5.51	4.85	
MSCI ACWI ex USA	2.98	13.60	1.29	9.39	2.16	6.54	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	4.87	Sep-08
Foreign Large Value MStar MF Rank	2	3	6	23	6	1	23	41	29	45	2	1	8	1	Sep-08
EuroPacific Growth R6	3.87	17.59	1.91	10.84	4.45	8.15	-14.91	31.17	1.01	-0.48	-2.29	20.58	19.64	4.55	Jun-08
MSCI ACWI ex USA	2.98	13.60	1.29	9.39	2.16	6.54	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	2.43	Jun-08
Excess Return	0.89	3.99	0.62	1.45	2.29	1.61	-0.71	3.98	-3.49	5.18	1.58	5.29	2.81	2.12	
Foreign Large Blend MStar MF Rank	21	7	19	6	4	10	47	6	53	42	18	50	28	13	Jun-08
Victory Trivalent International Small Cap	3.14	15.99	-6.69	9.40	4.70	12.03	-20.21	37.13	-0.70	8.20	-0.20	32.98	24.32	6.60	Aug-15
MSCI ACWI xUS Small (net)	1.21	11.60	-5.94	7.76	2.77	8.48	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	6.59	Aug-15
Excess Return	1.93	4.39	-0.75	1.64	1.93	3.55	-2.01	5.48	-4.61	5.60	3.83	13.25	5.80	0.01	
MSCI ACWI ex USA	2.98	13.60	1.29	9.39	2.16	6.54	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	6.55	Aug-15
Foreign Small/Mid Growth MStar MF Rank	73	61	63	49	53	26	61	43	36	60	26	24	22	67	Aug-15
Vanguard Emerging Markets Stock Index Fund	0.70	12.11	3.22	9.25	2.26	5.64	-14.58	31.38	11.73	-15.35	0.60	6.16	10.77	0.03	Jul-18
MSCI Emerging Markets	0.61	10.59	1.21	10.66	2.49	5.81	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.22	-0.97	Jul-18
Excess Return	0.09	1.52	2.01	-1.41	-0.23	-0.17	0.00	-5.90	0.54	-0.43	2.79	8.76	-7.45	1.00	
Foreign Small/Mid Growth MStar MF Rank	99	92	11	57	93	99	25	96	1	99	12	99	99	17	Jul-18
ABS Emerging Markets Strategic Portfolio LP	0.72	12.26	1.60	--	--	--	-14.99	--	--	--	--	--	--	5.63	Sep-18
MSCI Emerging Markets	0.61	10.59	1.21	10.66	2.49	5.81	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.22	2.33	Sep-18
Excess Return	0.11	1.67	0.39	--	--	--	-0.41	--	--	--	--	--	--	3.30	
Diversified Emerging Mkts MStar MF Rank	73	53	44	--	--	--	33	--	--	--	--	--	--	33	Sep-18

Spokane Employees' Retirement System

As of June 30, 2019

Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
Long Biased															
Weatherlow Offshore	2.98	9.38	1.52	5.50	2.84	5.39	-3.10	5.67	0.99	1.49	4.91	13.56	8.47	3.67	Mar-08
HFRI Fund of Funds Composite Index	<u>1.69</u>	<u>6.38</u>	<u>1.36</u>	<u>4.32</u>	<u>2.23</u>	<u>3.23</u>	<u>-4.02</u>	<u>7.77</u>	<u>0.51</u>	<u>-0.27</u>	<u>3.36</u>	<u>8.96</u>	<u>4.79</u>	<u>1.54</u>	Mar-08
Excess Return	1.29	3.00	0.16	1.18	0.61	2.16	0.92	-2.10	0.48	1.76	1.55	4.60	3.68	2.13	
S&P 500	4.30	18.54	10.42	14.19	10.71	14.70	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	9.68	Mar-08
Opportunistic Credit															
Beach Point Select Fund	2.68	6.89	4.62	7.54	5.61	--	0.28	7.08	14.52	2.58	2.35	15.93	17.58	6.54	Oct-13
HFRI ED: Distressed/Restructuring Index	<u>1.27</u>	<u>4.53</u>	<u>-0.12</u>	<u>6.71</u>	<u>1.57</u>	<u>6.26</u>	<u>-1.70</u>	<u>6.25</u>	<u>15.15</u>	<u>-8.06</u>	<u>-1.39</u>	<u>14.05</u>	<u>10.12</u>	<u>3.06</u>	Oct-13
Excess Return	1.41	2.36	4.74	0.83	4.04		1.98	0.83	-0.63	10.64	3.74	1.88	7.46	3.48	
HFRX Distressed Securities Index	1.92	3.91	0.26	2.64	-0.57	1.27	-9.50	3.14	19.72	-11.14	0.42	5.37	0.94	0.74	Oct-13
Contrarian Capital Fund I, LP	-0.44	0.11	-15.71	3.10	0.18	7.71	-12.43	4.77	25.46	-7.89	0.45	17.00	24.54	-14.70	Sep-18
HFRI ED: Distressed/Restructuring Index	<u>1.27</u>	<u>4.53</u>	<u>-0.12</u>	<u>6.71</u>	<u>1.57</u>	<u>6.26</u>	<u>-1.70</u>	<u>6.25</u>	<u>15.15</u>	<u>-8.06</u>	<u>-1.39</u>	<u>14.05</u>	<u>10.12</u>	<u>-1.42</u>	Sep-18
Excess Return	-1.71	-4.42	-15.59	-3.61	-1.39	1.45	-10.73	-1.48	10.31	0.17	1.84	2.95	14.42	-13.28	
HFRX Distressed Securities Index	1.92	3.91	0.26	2.64	-0.57	1.27	-9.50	3.14	19.72	-11.14	0.42	5.37	0.94	-0.38	Sep-18
Real Estate															
SERS Principal Global Investors REIT	3.12	21.06	14.64	6.43	9.70	16.41	-4.13	9.16	6.67	4.45	32.55	4.17	17.28	6.66	Dec-06
FTSE NAREIT All REIT	<u>1.08</u>	<u>17.97</u>	<u>11.52</u>	<u>5.81</u>	<u>8.56</u>	<u>15.52</u>	<u>-4.42</u>	<u>9.27</u>	<u>9.28</u>	<u>2.29</u>	<u>27.15</u>	<u>3.21</u>	<u>20.14</u>	<u>5.49</u>	Dec-06
Excess Return	2.04	3.09	3.12	0.62	1.14	0.89	0.29	-0.11	-2.61	2.16	5.40	0.96	-2.86	1.17	
US Real Estate Equity Rank	23	20	17	28	20	35	37	24	60	49	30	21	76	38	Dec-06
Prime Property LLC	1.80	3.12	7.29	8.24	10.37	10.38	8.03	8.67	9.31	14.53	14.08	16.17	11.68	7.64	Oct-17
NCREIF - ODCE NET	<u>0.77</u>	<u>1.98</u>	<u>5.47</u>	<u>6.61</u>	<u>8.75</u>	<u>8.86</u>	<u>7.36</u>	<u>6.66</u>	<u>7.79</u>	<u>13.91</u>	<u>11.46</u>	<u>12.90</u>	<u>9.79</u>	<u>6.43</u>	Oct-17
Excess Return	1.03	1.14	1.82	1.63	1.62	1.52	0.67	2.01	1.52	0.62	2.62	3.27	1.89	1.21	
US Real Estate Equity Rank	59	99	89	6	7	99	1	25	20	1	99	1	99	81	Oct-17

Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)	Inception (%)	Inception Date
Special Opportunities															
OrbiMed Partners II	5.83	28.80	4.97	7.86	3.90	10.98	-18.43	25.30	-21.91	2.14	25.88	32.19	16.19	9.71	Dec-10
MSCI World Healthcare Index	1.50	9.76	10.84	8.48	7.38	13.10	2.51	19.80	-6.81	6.60	18.10	36.27	17.54	12.74	Dec-10
Excess Return	4.33	19.04	-5.87	-0.62	-3.48	-2.12	-20.94	5.50	-15.10	-4.46	7.78	-4.08	-1.35	-3.03	
NASDAQ Biotech Index	-2.25	12.95	-0.20	8.90	5.44	16.80	-8.86	21.63	-21.35	11.77	34.40	65.97	32.29	16.42	Dec-10
S&P Composite 1500 Health Care	1.42	8.40	12.00	11.32	11.03	15.99	6.71	22.47	-2.05	7.41	24.79	42.19	18.35	15.89	Dec-10
Contrarian Emerging Markets Fund LP	1.11	4.47	5.13	18.07	9.97	16.02	0.96	20.36	22.72	14.48	-1.97	14.56	23.32	4.46	Sep-18
HFRI Emerging Markets: Global Index	2.03	6.52	1.98	4.94	1.78	3.93	-6.83	12.50	7.33	-3.47	-2.41	3.67	8.62	3.20	Sep-18
Excess Return	-0.92	-2.05	3.15	13.13	8.19	12.09	7.79	7.86	15.39	17.95	0.44	10.89	14.70	1.26	
MSCI Emerging Markets	0.61	10.59	1.21	10.66	2.49	5.81	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.22	2.33	Sep-18

Non-Marketable Securities Overview
As of March 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Real Estate	Metropolitan Real Estate Partners V	2007	\$2,000,000	\$1,885,000	\$2,066,019	\$182,173	\$2,248,193	\$115,000	94.25%	3.34

Time and Dollar Weighted Returns

Metropolitan Real Estate Partners V	Q1-19	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Time Weighted	-1.32%	-1.32%	-8.20%	-8.11%	-3.98%	2.60%	5.85%	3.88%
Money Weighted	-1.26%	-1.26%	-8.14%	-8.14%	-1.90%	11.00%	12.82%	9.28%
NCREIF Property Index	1.80%	1.80%	6.82%	6.97%	7.07%	9.12%	9.61%	8.50%

Metropolitan Real Estate Partners V	2018	2017	2016	2015	2014	2013	Inception 11/30/07
Time Weighted	-7.70%	-7.81%	4.86%	9.75%	20.70%	14.26%	-5.09%
Money Weighted	-7.64%	-7.45%	3.86%	11.04%	19.67%	13.59%	3.34%
NCREIF Property Index	6.71%	6.98%	7.97%	13.33%	11.81%	10.99%	6.42%

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present value of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Non-Marketable Securities Overview

As of June 30, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Real Estate	Morrison Street Fund V, LP	2014	\$6,080,000	\$5,960,493	\$6,065,423	\$2,231,413	\$8,296,836	\$119,507	98.03%	11.80

Time and Dollar Weighted Returns

Morrison Street Fund V, LP	Q2-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Time Weighted	1.48%	1.83%	9.52%	10.45%	11.35%	12.32%	10.51%
Money Weighted	1.46%	1.58%	10.32%	11.42%	12.27%	13.29%	12.09%
NCREIF Property Index	1.51%	3.34%	6.50%	6.85%	6.89%	7.82%	8.83%

Morrison Street Fund V, LP	2018	2017	2016	2015	Inception 6/30/14
Time Weighted	10.12%	18.03%	11.10%	11.89%	10.51%
Money Weighted	9.97%	17.74%	11.31%	13.31%	12.09%
NCREIF Property Index	6.71%	6.98%	7.97%	13.33%	8.83%

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present value of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Non-Marketable Securities Overview

As of June 30, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Real Estate	Morrison Street Debt Opportunities Fd LP	2017	\$5,000,000	\$4,514,838	\$1,126,824	\$4,122,673	\$5,249,497	\$485,162	90.30%	7.89

Time and Dollar Weighted Returns

Morrison Street Debt Opportunities Fd LP	Q2-19	YTD	1 Yr	2 Yrs	3 Yrs
Time Weighted	1.90%	4.06%	9.32%	9.74%	
Money Weighted	1.90%	4.06%	9.26%	9.82%	
NCREIF - ODCE NET	0.77%	1.98%	5.47%	6.46%	6.61%

Morrison Street Debt Opportunities Fd LP	2018	2017	2016	2015	Inception 12/31/16
Time Weighted	9.94%	4.47%			7.39%
Money Weighted	9.92%	5.28%			7.89%
NCREIF - ODCE NET	7.36%	6.66%	7.79%	13.91%	6.40%

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present value of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Non-Marketable Securities Overview

As of March 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Long Biased Hedge	Orbimed Royalty Opportunities	2011	\$5,000,000	\$5,000,000	\$3,851,963	\$2,370,389	\$6,222,352	\$0	100.00%	6.16

Time and Dollar Weighted Returns

Orbimed Royalty Opportunities	Q1-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs
Time Weighted	5.18%	5.18%	15.69%	14.11%	1.16%	3.30%	4.59%	6.04%
Money Weighted	5.17%	5.17%	18.10%	15.01%	0.87%	3.76%	5.12%	5.99%
HFRI Fund of Funds Composite Index	4.61%	4.61%	0.14%	2.81%	3.93%	1.43%	2.20%	3.10%
S&P 500	13.65%	13.65%	9.50%	11.72%	13.51%	10.46%	10.91%	12.85%

Orbimed Royalty Opportunities	2018	2017	2016	2015	2014	2013	Inception 9/1/11
Time Weighted	22.03%	4.47%	-20.87%	9.95%	9.99%	6.17%	7.27%
Money Weighted	25.50%	4.57%	-17.15%	9.99%	10.00%	6.90%	6.16%
HFRI Fund of Funds Composite Index	-4.02%	7.77%	0.51%	-0.27%	3.36%	8.96%	2.86%
S&P 500	-4.38%	21.83%	11.96%	1.38%	13.69%	32.39%	14.15%

Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present value of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Non-Marketable Securities Overview
As of March 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Long Biased Hedge	Orbimed Royalty Opportunities II	2015	\$5,000,000	\$4,167,500	\$1,922,712	\$3,307,349	\$5,230,061	\$832,500	83.35%	15.76

Time and Dollar Weighted Returns

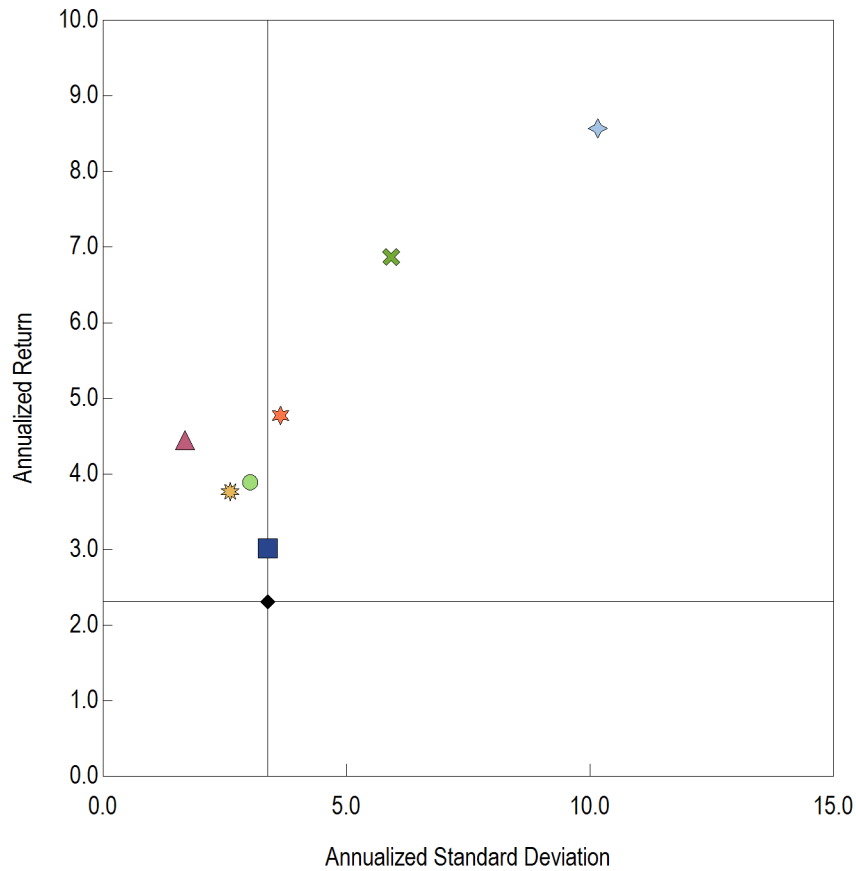
	Q1-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs
Orbimed Royalty Opportunities II						
Time Weighted	12.09%	12.09%	23.73%	18.11%	13.48%	14.27%
Money Weighted	12.48%	12.48%	23.26%	18.78%	15.86%	15.76%
HFRI Fund of Funds Composite Index	4.61%	4.61%	0.14%	2.81%	3.93%	1.43%
S&P 500	13.65%	13.65%	9.50%	11.72%	13.51%	10.46%

	2018	2017	2016	2015	Inception 4/1/15
Orbimed Royalty Opportunities II					
Time Weighted	15.59%	12.28%	0.60%		14.27%
Money Weighted	15.15%	12.85%	-0.05%		15.76%
HFRI Fund of Funds Composite Index	-4.02%	7.77%	0.51%	-0.27%	1.43%
S&P 500	-4.38%	21.83%	11.96%	1.38%	10.46%

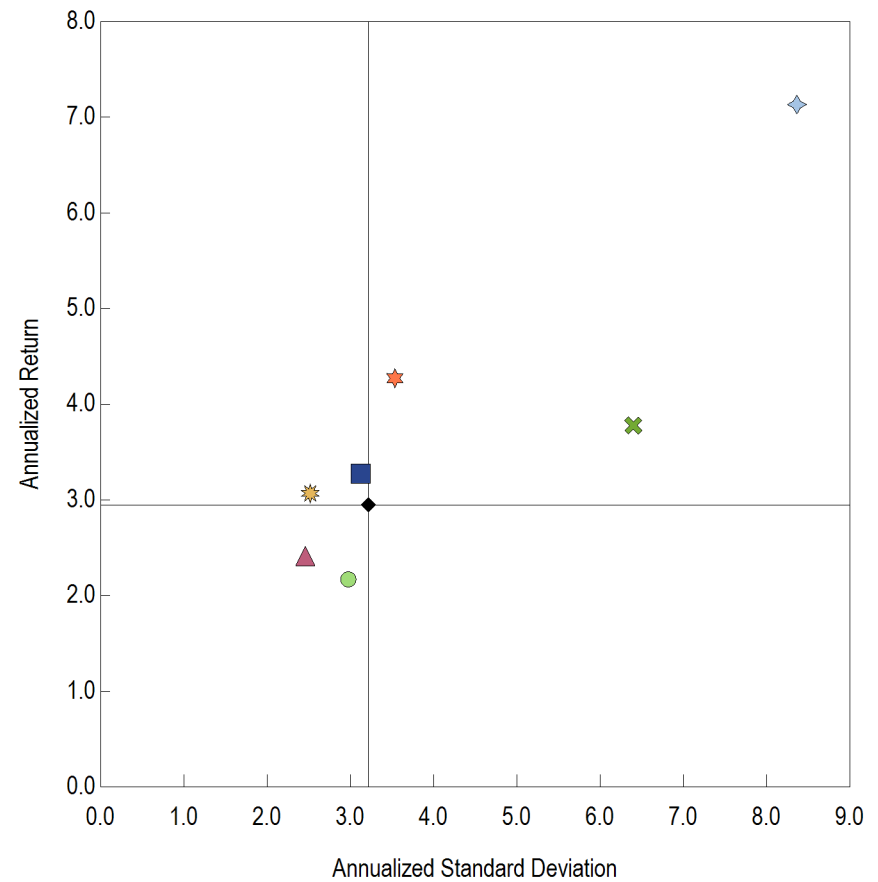
Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for the timing of each external flow.

Internal Rate of Return - The IRR (also referred to as the dollar-weighted return) differs from the TWR in that it calculates the return rate at which the present value of cash outflows equals the present value of cash inflows. Its distinguishing characteristic is that this methodology is generally viewed to better accommodate the extreme cash flows and changes in market values that often accompany private equity or private real estate investments.

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2019



Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2019

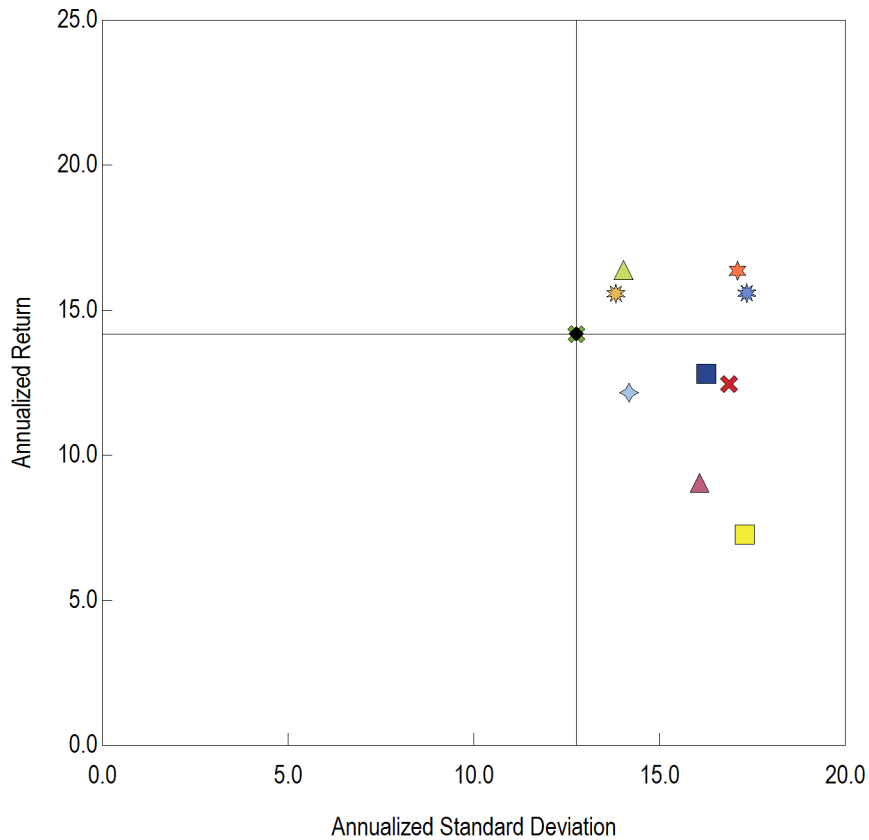


- Sterling Core Bond
- ✕ Hotchkis & Wiley High Yield
- ⚡ Post Lmtd Term High Yield
- ▲ Rimrock Low Volatility Offshore
- ◆ Castine Partners II **
- ★ Polar Long Short Fund
- ◆ BBgBarc US Aggregate TR
- HFRI FOF: Conservative Index

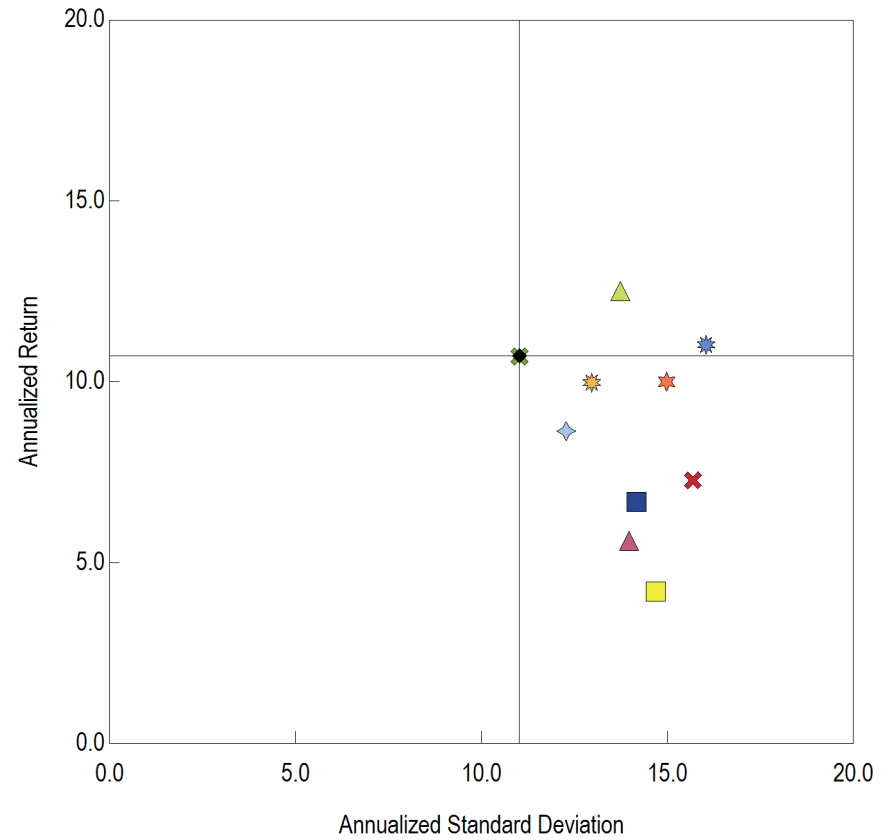
- Sterling Core Bond
- ✕ Hotchkis & Wiley High Yield
- ⚡ Post Lmtd Term High Yield
- ▲ Rimrock Low Volatility Offshore
- ◆ Castine Partners II **
- ★ Polar Long Short Fund
- ◆ BBgBarc US Aggregate TR
- HFRI FOF: Conservative Index

** Performance prior to 7/1/18 is representative of Castine Partners I.

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2019



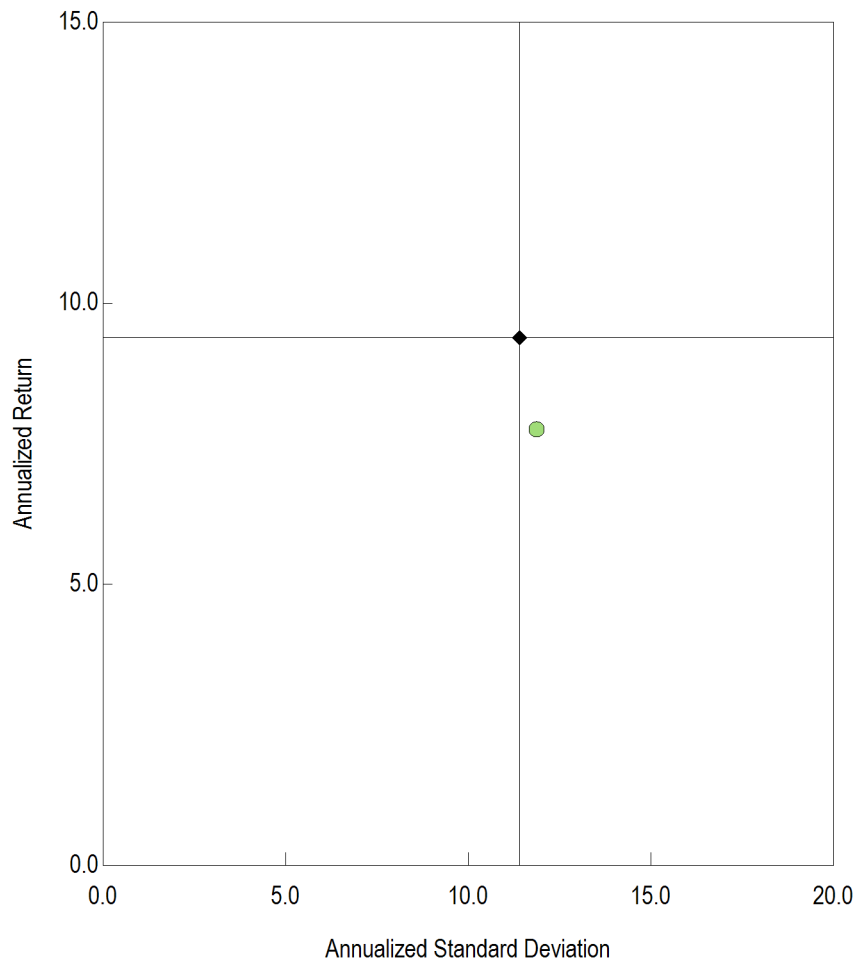
Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2019



- Hotchkis & Wiley Diversified Value I
- ✱ Fidelity S&P 500 Inst
- ✱ Jackson Square Large Cap Growth Eq
- ▲ Sterling Mid Cap Value
- ◆ Fidelity Mid Cap Index
- ★ Vanguard Mid Cap Growth
- Frontier Phocas Small Cap Value I
- ✱ Fidelity Small Cap Index
- ✱ Champlain Small Cap
- ▲ Bridge City Small Growth
- ◆ S&P 500

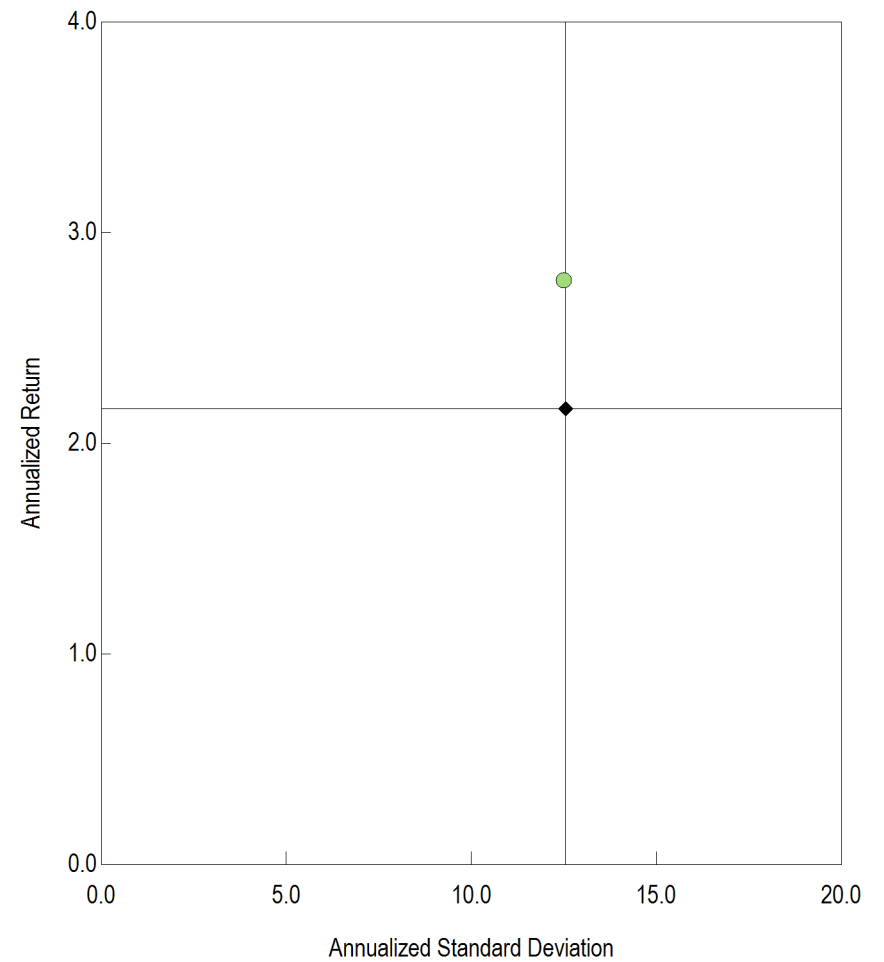
- Hotchkis & Wiley Diversified Value I
- ✱ Fidelity S&P 500 Inst
- ✱ Jackson Square Large Cap Growth Eq
- ▲ Sterling Mid Cap Value
- ◆ Fidelity Mid Cap Index
- ★ Vanguard Mid Cap Growth
- Frontier Phocas Small Cap Value I
- ✱ Fidelity Small Cap Index
- ✱ Champlain Small Cap
- ▲ Bridge City Small Growth
- ◆ S&P 500

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2019



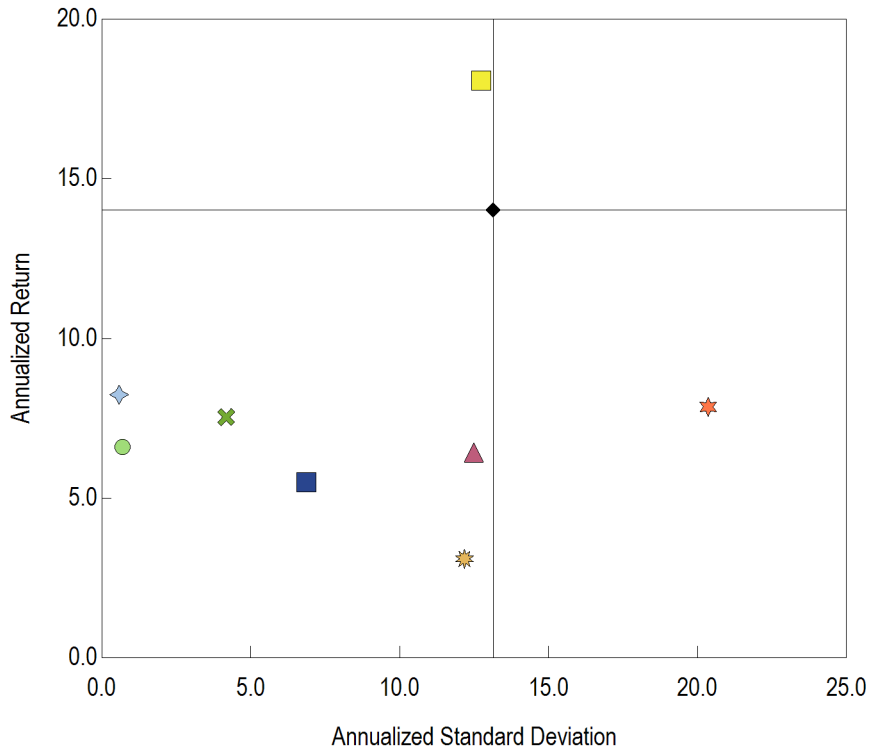
◆ MSCI ACWI ex USA
● MSCI ACWI xUS Small (net)

Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2019

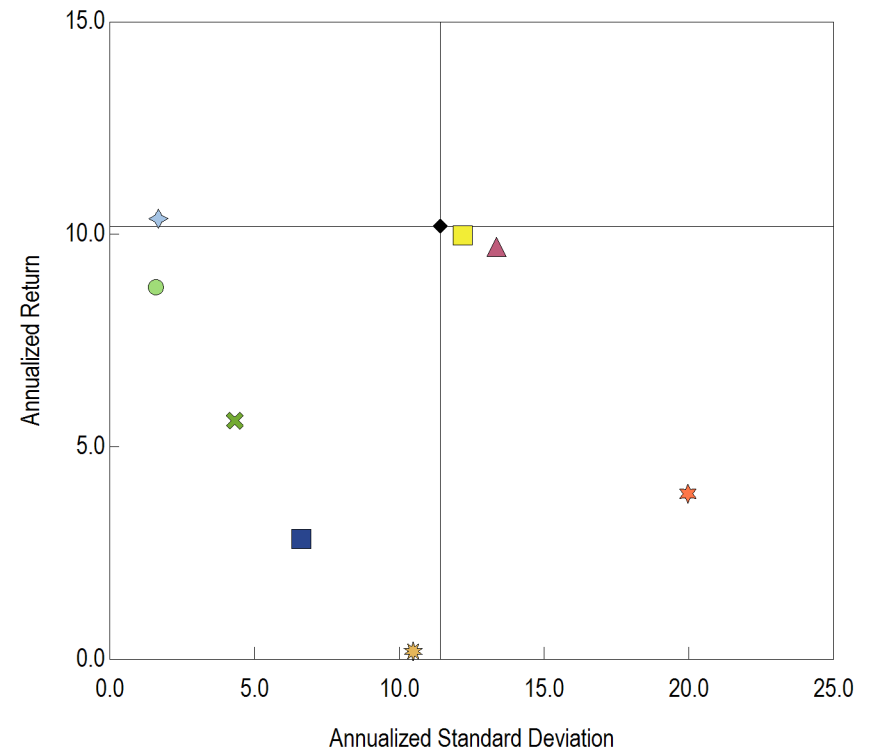


◆ MSCI ACWI ex USA
● MSCI ACWI xUS Small (net)

Annualized Return vs. Annualized Standard Deviation
3 Years Ending June 30, 2019



Annualized Return vs. Annualized Standard Deviation
5 Years Ending June 30, 2019



- Weatherlow Offshore
- ✕ Beach Point Select Fund
- ✱ Contrarian Capital Fund I, LP
- ▲ SERS Principal Global Investors REIT
- ◆ Prime Property LLC
- ★ OrbiMed Partners II
- Contrarian Emerging Markets Fund LP
- ◆ Russell 3000
- NCREIF - ODCE NET

- Weatherlow Offshore
- ✕ Beach Point Select Fund
- ✱ Contrarian Capital Fund I, LP
- ▲ SERS Principal Global Investors REIT
- ◆ Prime Property LLC
- ★ OrbiMed Partners II
- Contrarian Emerging Markets Fund LP
- ◆ Russell 3000
- NCREIF - ODCE NET

Spokane Employees' Retirement System

As of June 30, 2019

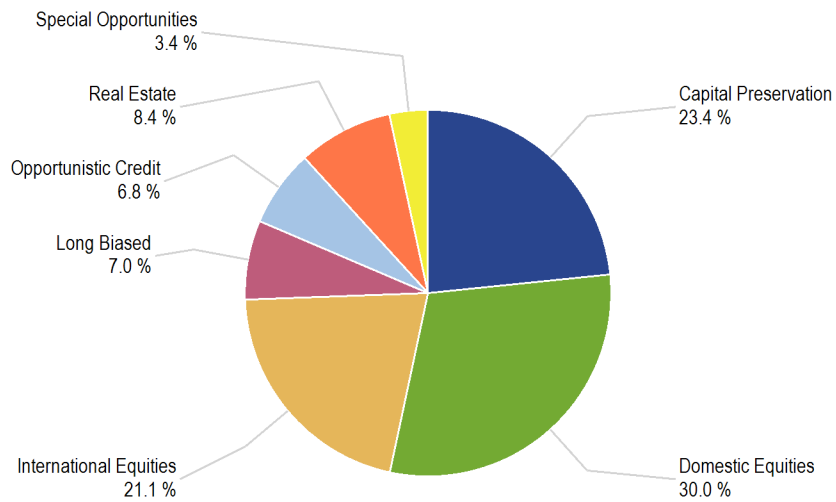
Investment Expense Analysis

Name	Vehicle Type	Identifier	Benchmark	Universe	Market Value	% of Portfolio	Expense Ratio	Median Expense Ratio	Difference Fund v. Median
Artisan Int'l Value	Mutual Fund	APHKX	MSCI ACWI ex USA Value	Foreign Value MStar MF	\$21,737,008	10.8%	1.01%	0.95%	0.06%
Bridge City Small Growth	Separate Account		Russell 2000 Growth	Small Growth MStar MF	\$5,685,051	2.8%	0.40%	0.99%	-0.59%
Champlain Small Cap	Commingled Fund		Russell 2000 Growth	Small Growth MStar MF	\$6,550,483	3.3%	1.00%	0.99%	0.01%
EuroPacific Growth R6	Mutual Fund	RERGX	MSCI ACWI ex USA	Foreign MStar MF	\$21,837,490	10.9%	0.49%	0.90%	-0.41%
Fidelity Instl Govt Money Market	Mutual Fund	FIGXX	91 Day T-Bills	Money Market - Taxable MStar MF	\$1,067,112	0.5%	0.18%	0.21%	-0.03%
Fidelity Mid Cap Index	Mutual Fund	FSMDX	Russell MidCap	Mid Cap MStar MF	\$4,291,216	2.1%	0.03%	0.89%	-0.87%
Fidelity S&P 500	Mutual Fund	FXAIX	S&P 500	Large Cap MStar MF	\$28,231,757	14.1%	0.02%	0.73%	-0.72%
Fidelity Small Cap Index	Mutual Fund	FSSNX	Russell 2000	Small Cap MStar MF	\$898,614	0.4%	0.03%	0.98%	-0.96%
Frontier Sm Cap Value I	Mutual Fund	FPSVX	Russell 2000 Value	Small Value MStar MF	\$3,871,183	1.9%	0.95%	0.99%	-0.04%
Hotchkis & Wiley Div Value I	Mutual Fund	HWCIX	Russell 1000 Value	Large Value MStar MF	\$16,242,072	8.1%	0.80%	0.72%	0.08%
Hotchkis & Wiley High Yield	Mutual Fund	HWHZX	BBgBarc US High Yield TR	High Yield Bond MStar MF	\$13,461,407	6.7%	0.60%	0.73%	-0.13%
Jackson Square Large-Cap Growth Equity	Mutual Fund	DPLGX	S&P 500	Large Growth MStar MF	\$17,324,883	8.6%	0.64%	0.79%	-0.15%
Principal Global Investors REIT	Separate Account		FTSE NAREIT All REIT	Real Estate MStar MF	\$11,693,187	5.8%	0.75%	0.91%	-0.16%
Sterling Core Bond	Separate Account		BBgBarc US Aggregate TR	Intermediate Core Bond MStar MF	\$25,826,314	12.9%	0.25%	0.45%	-0.20%
Sterling Mid Cap Value	Separate Account		Russell MidCap Value	Mid-Cap Value MStar MF	\$4,707,076	2.3%	0.75%	0.86%	-0.11%
Vanguard Emerging Markets Stock Index Fd	Mutual Fund	VEMAX	MSCI Emerging Markets	Diversified Emerging Mkts MStar MF	\$1,194,543	0.6%	0.14%	1.15%	-1.01%
Vanguard Mid Cap Growth	Mutual Fund	VMGRX	Russell MidCap Growth	Mid-Cap Growth MStar MF	\$4,451,268	2.2%	0.36%	0.92%	-0.56%
Victory Trivalent International Small Cap	Mutual Fund	MISIX	MSCI ACWI xUS Small (net)	Foreign Small/Mid Growth MStar MF	\$11,798,725	5.9%	0.99%	1.08%	-0.09%
Total					\$200,869,388	100.0%	0.55%		

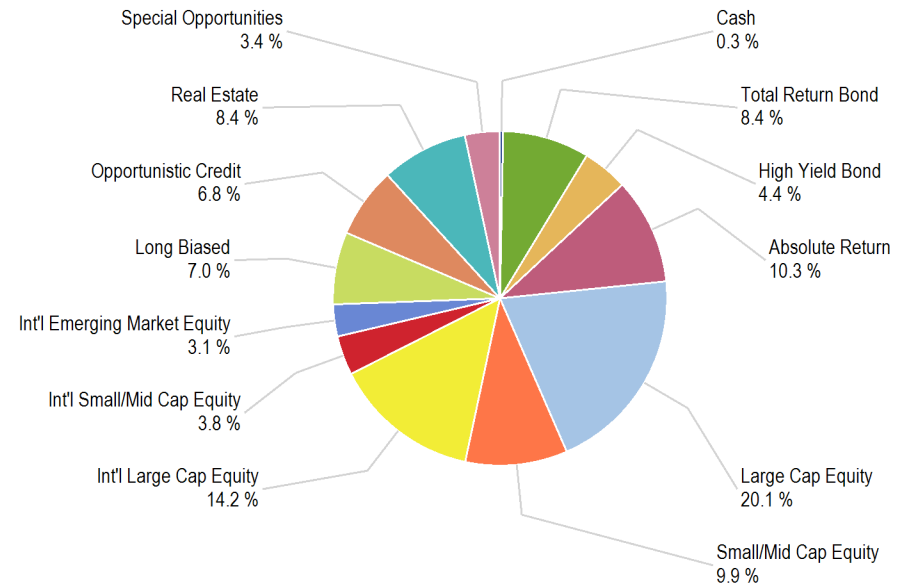
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Section 3

Current Allocation



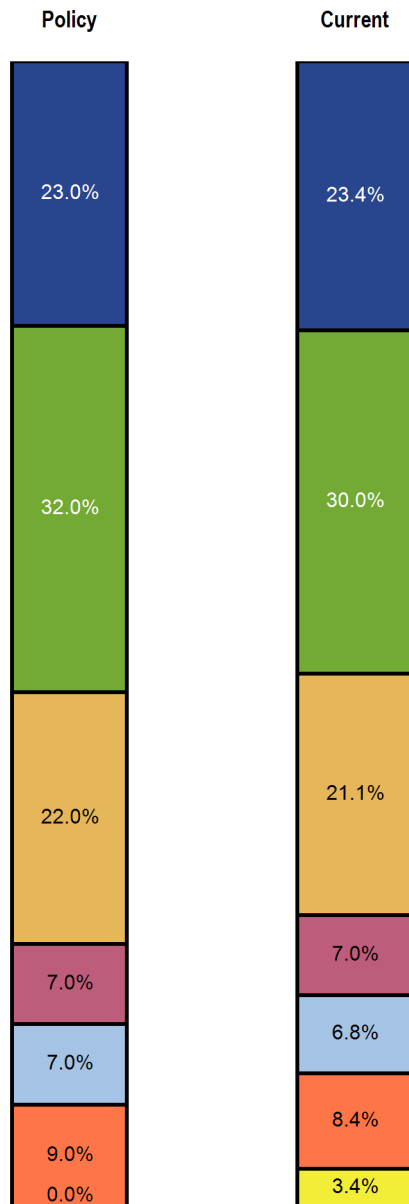
Current Implementation Allocation



Spokane Employees' Retirement System

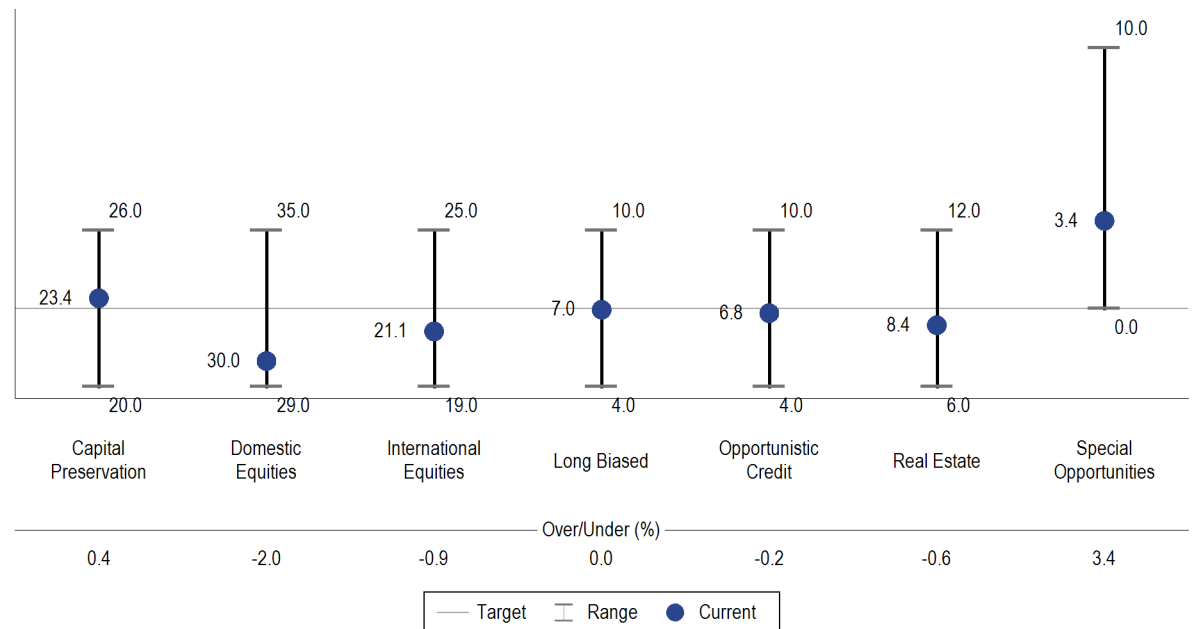
As of June 30, 2019

Asset Allocation vs. Target



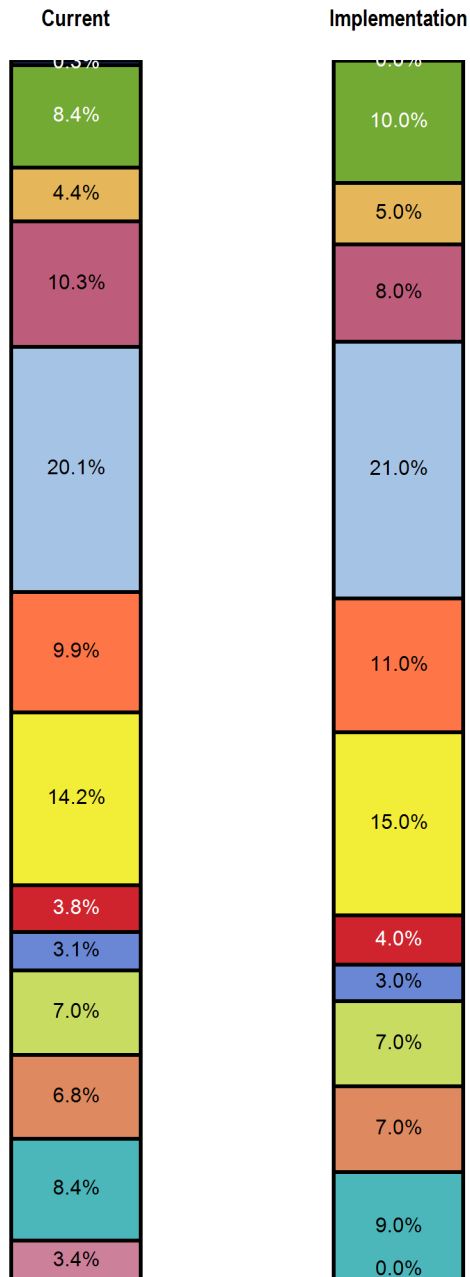
	Inv Pol Stmt	%	Inv Pol Stmt Range	Current	%	Difference	%
Capital Preservation	\$70,779,106	23.0%	20.0% - 26.0%	\$71,996,417	23.4%	\$1,217,311	0.4%
Domestic Equities	\$98,475,278	32.0%	29.0% - 35.0%	\$92,253,601	30.0%	-\$6,221,676	-2.0%
International Equities	\$67,701,753	22.0%	19.0% - 25.0%	\$64,993,628	21.1%	-\$2,708,125	-0.9%
Long Biased	\$21,541,467	7.0%	4.0% - 10.0%	\$21,396,992	7.0%	-\$144,475	0.0%
Opportunistic Credit	\$21,541,467	7.0%	4.0% - 10.0%	\$20,988,981	6.8%	-\$552,486	-0.2%
Real Estate	\$27,696,172	9.0%	6.0% - 12.0%	\$25,724,996	8.4%	-\$1,971,175	-0.6%
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$10,380,626	3.4%	\$10,380,626	3.4%
Total	\$307,735,243	100.0%		\$307,735,243	100.0%		

Actual vs. Target



Spokane Employees' Retirement System

As of June 30, 2019



Asset Allocation on June 30, 2019

	Actual	Actual	Target
Cash	\$1,067,112	0.3%	0.0%
Total Return Bond	\$25,826,314	8.4%	10.0%
High Yield Bond	\$13,461,407	4.4%	5.0%
Absolute Return	\$31,641,583	10.3%	8.0%
Large Cap Equity	\$61,798,711	20.1%	21.0%
Small/Mid Cap Equity	\$30,454,890	9.9%	11.0%
Int'l Large Cap Equity	\$43,574,498	14.2%	15.0%
Int'l Small/Mid Cap Equity	\$11,798,725	3.8%	4.0%
Int'l Emerging Market Equity	\$9,620,405	3.1%	3.0%
Long Biased	\$21,396,992	7.0%	7.0%
Opportunistic Credit	\$20,988,981	6.8%	7.0%
Real Estate	\$25,724,996	8.4%	9.0%
Special Opportunities	\$10,380,626	3.4%	0.0%
Total	\$307,735,243	100.0%	100.0%

Spokane Employees' Retirement System

As of June 30, 2019

Asset Allocation vs. Target

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Capital Preservation	\$70,779,106	23.0%	20.0% - 26.0%	\$71,996,417	23.4%	\$1,217,311	0.4%	Yes
Cash	\$0	0.0%	0.0% - 2.0%	\$1,067,112	0.3%	\$1,067,112	0.3%	Yes
Fidelity Instl Govt Money Market				\$1,067,112	0.3%			
Total Return Bond	\$30,773,524	10.0%	8.0% - 12.0%	\$25,826,314	8.4%	-\$4,947,210	-1.6%	Yes
Sterling Core Bond				\$25,826,314	8.4%			
High Yield Bond	\$15,386,762	5.0%	3.0% - 7.0%	\$13,461,407	4.4%	-\$1,925,355	-0.6%	Yes
Hotchkis & Wiley High Yield				\$13,461,407	4.4%			
Absolute Return	\$24,618,819	8.0%	6.0% - 10.0%	\$31,641,583	10.3%	\$7,022,764	2.3%	No
Polar Long/Short Fund				\$7,245,251	2.4%			
Post Lmted Term High Yield				\$6,335,511	2.1%			
Rimrock Low Volatility Offshore				\$10,098,509	3.3%			
Castine Partners II				\$7,962,311	2.6%			
Domestic Equities	\$98,475,278	32.0%	29.0% - 35.0%	\$92,253,601	30.0%	-\$6,221,676	-2.0%	Yes
Large Cap Equity	\$64,624,401	21.0%	19.0% - 23.0%	\$61,798,711	20.1%	-\$2,825,690	-0.9%	Yes
Hotchkis & Wiley Div Value I				\$16,242,072	5.3%			
Fidelity S&P 500				\$28,231,757	9.2%			
Jackson Square Large-Cap Growth Equity				\$17,324,883	5.6%			
Small/Mid Cap Equity	\$33,850,877	11.0%	9.0% - 13.0%	\$30,454,890	9.9%	-\$3,395,987	-1.1%	Yes
Sterling Mid Cap Value				\$4,707,076	1.5%			

Spokane Employees' Retirement System

As of June 30, 2019

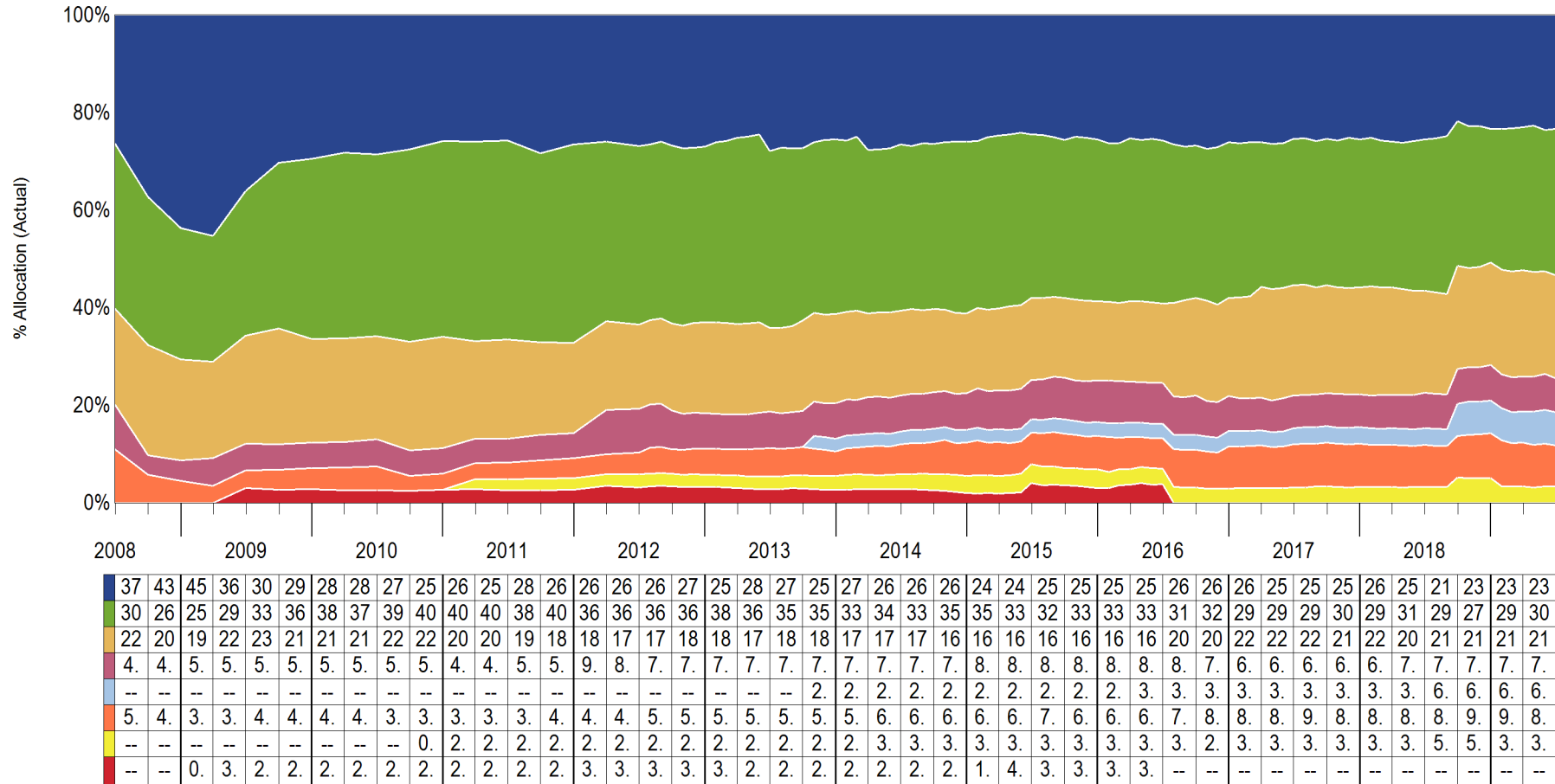
	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Fidelity Mid Cap Index				\$4,291,216	1.4%			
Vanguard Mid Cap Growth				\$4,451,268	1.4%			
Frontier Sm Cap Value I				\$3,871,183	1.3%			
Fidelity Small Cap Index				\$898,614	0.3%			
Bridge City Small Growth				\$5,685,051	1.8%			
Champlain Small Cap				\$6,550,483	2.1%			
International Equities	\$67,701,753	22.0%	19.0% - 25.0%	\$64,993,628	21.1%	-\$2,708,125	-0.9%	Yes
Int'l Large Cap Equity	\$46,160,286	15.0%	13.0% - 17.0%	\$43,574,498	14.2%	-\$2,585,789	-0.8%	Yes
EuroPacific Growth R6				\$21,837,490	7.1%			
Artisan Int'l Value				\$21,737,008	7.1%			
Int'l Small/Mid Cap Equity	\$12,309,410	4.0%	2.0% - 6.0%	\$11,798,725	3.8%	-\$510,684	-0.2%	Yes
Victory Trivalent International Small Cap				\$11,798,725	3.8%			
Int'l Emerging Market Equity	\$9,232,057	3.0%	1.0% - 5.0%	\$9,620,405	3.1%	\$388,348	0.1%	Yes
Berens Global Value				\$0	0.0%			
Vanguard Emerging Markets Stock Index Fd				\$1,194,543	0.4%			
ABS Emerging Markets Strategic				\$8,425,862	2.7%			
Long Biased	\$21,541,467	7.0%	4.0% - 10.0%	\$21,396,992	7.0%	-\$144,475	0.0%	Yes
Long Biased	\$21,541,467	7.0%	4.0% - 10.0%	\$21,396,992	7.0%	-\$144,475	0.0%	Yes
Weatherlow Offshore				\$16,385,225	5.3%			

Spokane Employees' Retirement System

As of June 30, 2019

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
OrbiMed Royalty Opps II				\$2,657,998	0.9%			
OrbiMed Royalty Opportunities				\$2,353,769	0.8%			
Opportunistic Credit	\$21,541,467	7.0%	4.0% - 10.0%	\$20,988,981	6.8%	-\$552,486	-0.2%	Yes
Opportunistic Credit	\$21,541,467	7.0%	4.0% - 10.0%	\$20,988,981	6.8%	-\$552,486	-0.2%	Yes
Beach Point Select Fund LP				\$11,033,823	3.6%			
Contrarian Capital Fund I LP				\$9,955,158	3.2%			
Real Estate	\$27,696,172	9.0%	6.0% - 12.0%	\$25,724,996	8.4%	-\$1,971,175	-0.6%	Yes
Real Estate	\$27,696,172	9.0%	6.0% - 12.0%	\$25,724,996	8.4%	-\$1,971,175	-0.6%	Yes
Principal Global Investors REIT				\$11,693,187	3.8%			
Metropolitan Realty V				\$182,173	0.1%			
Morrison Street Fund V				\$2,231,413	0.7%			
Morrison Street Debt Opportunities Fund LP				\$4,213,647	1.4%			
Morgan Stanley Prime Property Fund				\$7,404,576	2.4%			
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$10,380,626	3.4%	\$10,380,626	3.4%	Yes
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$10,380,626	3.4%	\$10,380,626	3.4%	Yes
Orbimed Partners II				\$4,114,265	1.3%			
Contrarian Emerging Markets				\$6,266,361	2.0%			
Total	\$307,735,243	100.0%		\$307,735,243	100.0%			

Asset Allocation History
11 Years Ending June 30, 2019

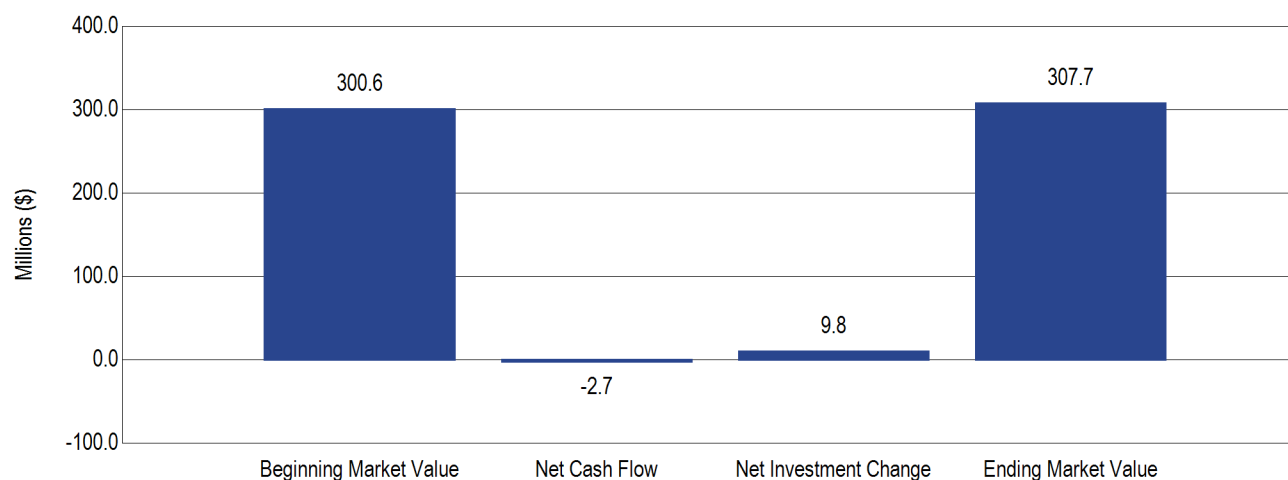


■ Capital Preservation
 ■ International Equities
 ■ Long Biased
 ■ Opportunistic Credit
 ■ Real Estate
 ■ Special Opportunities
 ■ Commodities
■ Domestic Equities

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Section 4

Change in Market Value
From April 01, 2019 To June 30, 2019



Cash Flow Summary

	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Ending Market Value (\$)
ABS Emerging Markets Strategic	8,364,788.11	0.00	0.00	0.00	61,073.88	8,425,861.99
Artisan Int'l Value	21,336,343.34	0.00	-450,000.00	-450,000.00	850,664.37	21,737,007.71
Beach Point Select Fund LP	10,744,442.00	0.00	0.00	0.00	289,381.00	11,033,823.00
Berens Global Value	936,212.05	0.00	-936,212.05	-936,212.05	0.00	0.00
Bridge City Small Growth	5,597,055.84	0.00	-125,000.00	-125,000.00	212,994.74	5,685,050.58
Castine Partners II	7,588,587.19	0.00	0.00	0.00	373,724.24	7,962,311.43
Champlain Small Cap	6,330,086.05	0.00	0.00	0.00	220,396.84	6,550,482.89
Contrarian Capital Fund I LP	8,513,070.53	1,500,000.00	0.00	1,500,000.00	-57,912.34	9,955,158.19
Contrarian Emerging Markets	6,198,937.66	0.00	0.00	0.00	67,423.56	6,266,361.22
EuroPacific Growth R6	21,556,979.14	0.00	-550,000.00	-550,000.00	830,510.72	21,837,489.86
Fidelity Instl Govt Money Market	141,176.04	10,387,566.89	-9,466,319.90	921,246.99	4,689.38	1,067,112.41
Fidelity Mid Cap Index	4,120,617.51	0.00	0.00	0.00	170,598.34	4,291,215.85
Fidelity S&P 500	27,067,870.05	0.00	0.00	0.00	1,163,886.50	28,231,756.55

Spokane Employees' Retirement System

As of June 30, 2019

	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Ending Market Value (\$)
Fidelity Small Cap Index	879,839.16	0.00	0.00	0.00	18,775.22	898,614.38
Frontier Sm Cap Value I	3,789,538.57	0.00	0.00	0.00	81,644.02	3,871,182.59
Hotchkis & Wiley Div Value I	15,554,576.85	0.00	0.00	0.00	687,495.11	16,242,071.96
Hotchkis & Wiley High Yield	13,231,537.28	0.00	0.00	0.00	229,869.96	13,461,407.24
Jackson Square Large-Cap Growth Equity	16,095,752.64	0.00	0.00	0.00	1,229,130.20	17,324,882.84
Metropolitan Realty V	182,173.39	0.00	0.00	0.00	0.00	182,173.39
Morgan Stanley Prime Property Fund	7,343,183.15	0.00	-72,245.38	-72,245.38	133,638.41	7,404,576.18
Morrison Street Debt Opportunities Fund LP	4,234,898.00	0.00	-99,712.56	-99,712.56	78,461.56	4,213,647.00
Morrison Street Fund V	2,650,922.66	0.00	-457,185.93	-457,185.93	37,676.27	2,231,413.00
Orbimed Partners II	3,885,548.00	0.00	0.00	0.00	228,717.00	4,114,265.00
OrbiMed Royalty Opportunities	2,370,389.00	0.00	-16,620.34	-16,620.34	0.00	2,353,768.66
OrbiMed Royalty Opps II	3,307,349.00	0.00	-649,350.65	-649,350.65	0.00	2,657,998.35
Polar Long/Short Fund	7,051,429.12	0.00	0.00	0.00	193,821.76	7,245,250.88
Post Lmtd Term High Yield	6,239,191.42	0.00	0.00	0.00	96,319.95	6,335,511.37
Principal Global Investors REIT	12,541,491.12	0.00	-1,220,000.00	-1,220,000.00	371,695.70	11,693,186.82
Rimrock Low Volatility Offshore	10,011,833.22	0.00	0.00	0.00	86,676.14	10,098,509.36
Sterling Core Bond	24,972,280.84	0.00	0.00	0.00	854,033.14	25,826,313.98
Sterling Mid Cap Value	4,512,910.41	0.00	0.00	0.00	194,165.63	4,707,076.04
Vanguard Emerging Markets Stock Index Fd	1,185,634.90	0.00	0.00	0.00	8,908.31	1,194,543.21
Vanguard Mid Cap Growth	4,209,689.90	0.00	0.00	0.00	241,577.91	4,451,267.81
Victory Trivalent International Small Cap	11,920,749.67	0.00	-500,000.00	-500,000.00	377,975.80	11,798,725.47
Weatherlow Offshore	15,909,194.05	0.00	0.00	0.00	476,031.39	16,385,225.44
Total	300,576,277.86	11,887,566.89	-14,542,646.81	-2,655,079.92	9,814,044.71	307,735,242.65

Section 5

Statistic Definitions

Annualized Standard Deviation	A statistic used to measure the portfolio's volatility. A statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.
Downside / Upside Deviation	Standard deviation makes no distinction between the "good" or upside deviations, and the "bad" or downside deviations. Both upside and downside deviations have an equal influence on the calculation of standard deviation. Downside deviation seeks to remedy this by ignoring all of the "good" observations and by instead focusing on the "bad" returns. Conversely, Upside deviation ignores all of the "bad" observations and instead focuses on the "good" returns.
Alpha	Measures the relationship between the portfolio performance and the performance of another or benchmark index and equals the excess return while the other portfolio or benchmark index is zero.
Beta	Measures the systematic market risk and is equal to the change in portfolio performance in relation to the change in portfolio performance/index performance.
R-Squared	The "goodness of fit" to a benchmark. The percentage of a manager's return that is "explained" by the benchmark.
Tracking Error	Tracking Error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking Error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.
Information Ratio	The Information Ratio is a measure of the risk-adjusted return of a financial security (or asset or portfolio). It is defined as expected active return divided by tracking error, where active return is the excess return and tracking error is the annualized standard deviation of the excess returns.
Sharpe Ratio	Sharpe Ratio is a measure of the excess return per unit of risk in an investment asset or a trading strategy. A higher Sharpe ratio indicates you are receiving more return for the level of risk taken.
Downside Capture Ratio	Measures manager's performance in down markets relative to a particular benchmark. A down-market is defined as those periods (months or quarters) in which market return is < 0.
Upside Capture Ratio	Measures manager's performance in up markets relative to a particular benchmark. An up-market is defined as those periods (months or quarters) in which market return is > 0.
Annualized Excess Return over Risk Free	Difference between the portfolio and the risk-free benchmark's return, annualized.
Annualized Excess Return	Difference between the portfolio and the benchmark's return, annualized.
Correlation	A statistic that measures the degree to which two data series move in relation to each other. The higher the correlation the more the data series move in tandem. Correlation ranges from +1 (perfect correlation), to -1 (perfect negative correlation), with zero indicating no correlation at all.