



Spokane Employees' Retirement System

September 30, 2019 Performance Report

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Section 1



“FREE” TRADES

While nationalism and protectionist policies continue to dominate global economic headlines, the online brokerage business here in the US has gone all in on “free” trade policies. Industry titan Charles Schwab pioneered the discount brokerage model and developed a highly successful business focusing on lowering commissions for retail investors. The firm has been so successful at bringing down fees, they recently announced that they would no longer be charging commissions on stock, ETF and certain option trades. On the heels of this announcement other industry leaders followed suit. TD Ameritrade, E*Trade and Interactive Brokers have all initiated similar no fee trading policies. Trading is now “free”.

If you are not already, the question you should be asking is if trades are now “free”, how do these firms make enough money to stay in business and provide shareholders with competitive returns on capital? A recent article by The Wall Street Journal stated it well, “when you trade for free, you still pay – at a different tollbooth.” There are essentially two tollbooths we would like to address, and neither is particularly transparent to the average investor.

Today, one of the primary sources of revenue for brokerage firms is net interest margin. Net interest margin is the difference between the interest income generated by financial institutions and the amount of interest paid out to their lenders. In this case, account holders are the lenders, whether they realize it or not. Virtually all brokerage accounts are set-up to sweep idle cash into low interest bank accounts (sweep vehicles) sponsored by the brokerage firms. The brokerage firm then directs equivalent funds into higher yielding investment accounts of its own and pockets the difference. Over time, account holders have typically seen their choice of sweep vehicles increasingly restricted. Sweep vehicles are generally paying annual interest between 0.10% and 0.60% in today’s marketplace. This compares to ultra conservative US government money market funds yielding nearly 2.0%. This business model is not new, the banking industry has been built on revenues from net interest margin. Given this increasing focus on net interest revenues, brokerage clients should be diligent about reviewing their sweep vehicle options.

The other tollbooth we would like to highlight is even less transparent, and while a legal (as long as it is disclosed) common industry practice, has the potential to take money out of investors’ pockets, a nearly invisible pickpocket of sorts. Contrary to popular press, Charles Schwab is not leading the industry transition to free trading. They are merely responding to new competition that operates on a far different revenue model. Enter Robinhood, a relatively new brokerage firm founded on the premise of commission-free trading. What’s the catch?

In order to process trades brokerage firms have to route their orders through any number of execution firms that match buy and sell orders. Robinhood, and other new competitors, as a practice derive a significant portion of their revenues from selling their brokerage order flow to the highest paying execution firms. Brokerage firms are allowed to sell their order flow but are required by the SEC to disclose to whom and for how much. The execution firms can use the order flow information to run high frequency trading programs that exploit pricing trends, trends visible only with access to order flow. There is a case to be made that the high frequency trading profits come at the expense of brokerage clients in the form of higher execution costs. However, any difference in execution would generally be difficult to detect even for sophisticated investors. The election to sell order flow is unique to each brokerage firm. Investors can access more details on their brokerage firm’s order routing practices by referencing the SEC’s Rule 606 quarterly reporting.

GLOBAL ECONOMIC LANDSCAPE

- Domestic markets continue to weigh mixed economic signals. The US economy gained 136,000 jobs in September, which coincided with a 45,000 upward revision to the prior two months. This resulted in a monthly average of just over 156,000 for the quarter, not bad for an aging economic cycle. However, US manufacturing activity fell to its lowest level in more than 10 years in the most recent month. Manufacturing represents a modest 10% of our current economy versus 90% for services. The net result was an unemployment rate that fell to 3.5% in September, its lowest reading since December 1969. This is well below the 50-year average rate of 6.2% and indicates an economy operating near full capacity.
- Economies of developed world countries continue to show signs of economic weakness. Global manufacturing declined another 1.3 points in September to 47.8, the lowest level in a decade. Global service activity has been more positive but shows signs of slowing. UK services Purchasing Managers Index dropped 1.1 points to 49.5 in September. The drop below 50 indicates a shift from expansion to contraction occurred late in the quarter. 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.
- Latin American countries continue to pursue policies of reform to stimulate economic growth. Argentina was experiencing the beginning of a cyclical upswing in its economy until unexpected primary election results in August led to a collapse in sovereign bond prices. The Mexican central bank cut their policy rate by 25 basis points to counter slowing capital expenditures resulting from expected slower growth in the US. Mexico continues to gain market share of US exports at the expense of China. Brazil continues to promote controversial policies of economic growth that include clearing of rainforest to promote agricultural production and transitioning certain sovereign energy rights over to private parties to enhance production.

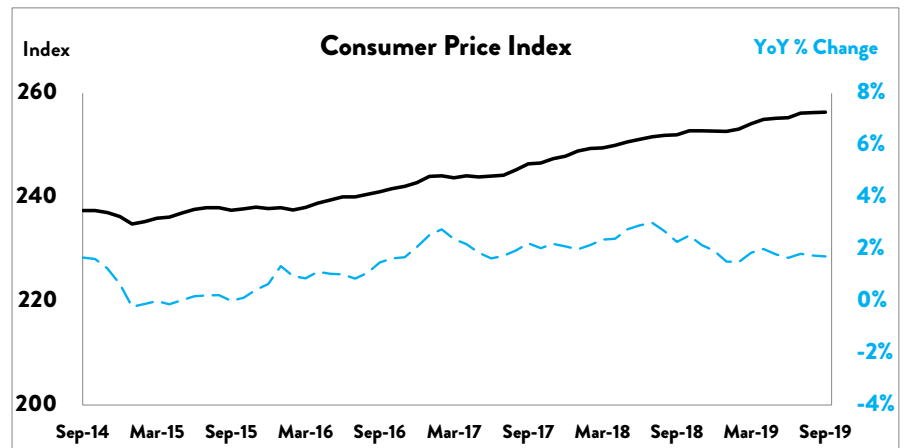
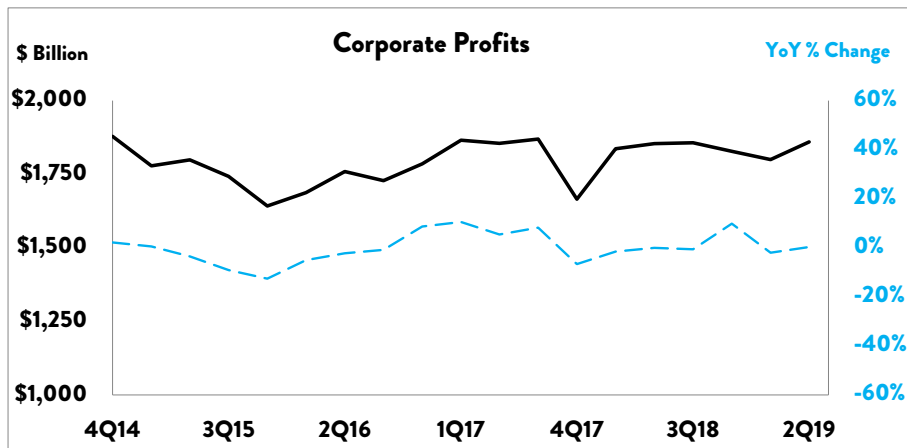
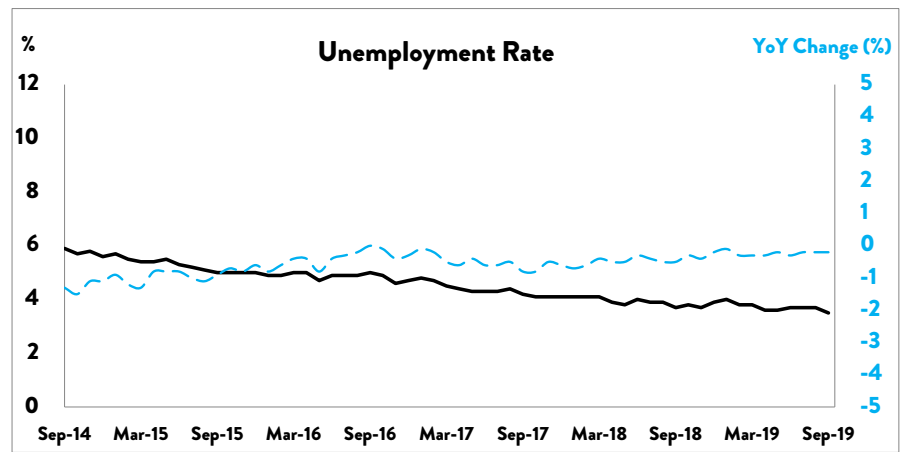
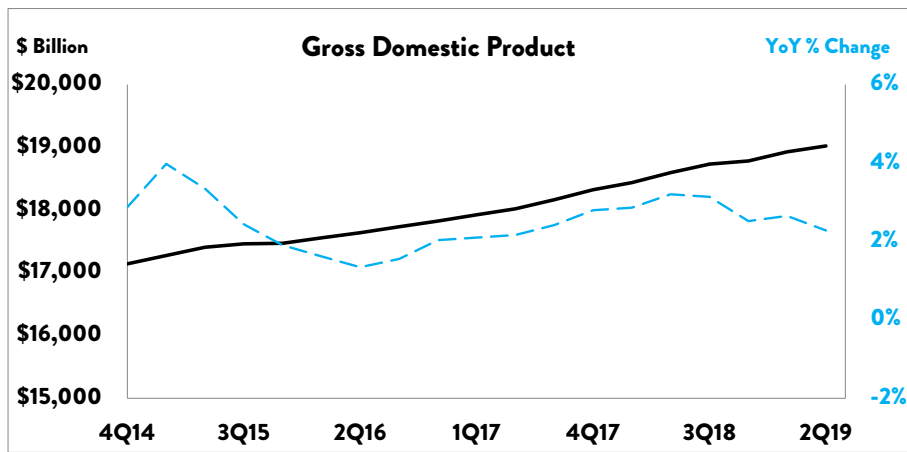
GLOBAL FINANCIAL MARKETS

- Domestic equity markets continue to see increasing cross-sector dispersion and are now seemingly split between cyclical and non-cyclical rotations. Throughout most of the quarter and year-to-date, non-cyclical sectors have trended higher on fears of a global economic recession. As a result, Technology, Real Estate and Utilities have been consistent outperformers. Cyclical sectors have lagged, dramatically led by Energy, Materials and Consumer Discretionary.
- Domestic fixed income markets benefited from a third consecutive quarter of declining interest rates. 10-year US Treasury yields ended the quarter just above 1.6%. Despite the decline in rates, the US continues to have the highest rate of any G7 country. The following highlights 10-year sovereign yields across the remaining G7 markets; Canada (1.23%), UK (0.44%), Germany (-0.59%), France (-0.28%), Italy (0.83%) and Japan (-0.21%).
- Drone strikes on Saudi Arabia oil production facilities took nearly half of their total daily production offline and sent oil prices skyrocketing by 15% in a single day. Markets were quick to reflect the temporary nature of this supply shock and the lack of any significant retaliation against Iran. In less than two weeks oil prices were back down below pre-attack valuations.
- Japanese corporate share repurchases are occurring at record pace. In 2018, Japanese companies announced \$7 trillion Yen (\$65B USD) in stock buybacks which represented a 40% year-over-year increase. This pace continues to pick up and is expected to reach \$9 Trillion Yen (\$85B USD) in 2019.
- Generally poor growth prospects overseas were reflected in negative developed and emerging stock returns this quarter. Though, year-to-date returns have been surprisingly resilient. 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 between the US and China, resulting in slower growth expectations.

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3Q2019 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	136,000	351,000	14,000	203,033	Sep-19
Unemployment Rate	3.5%	5.9%	3.5%	4.5%	Sep-19
Median Unemployment Length (Weeks)	9.8	14.0	6.6	10.4	Sep-19
Average Hourly Earnings	\$28.09	\$28.10	\$24.58	\$26.22	Sep-19

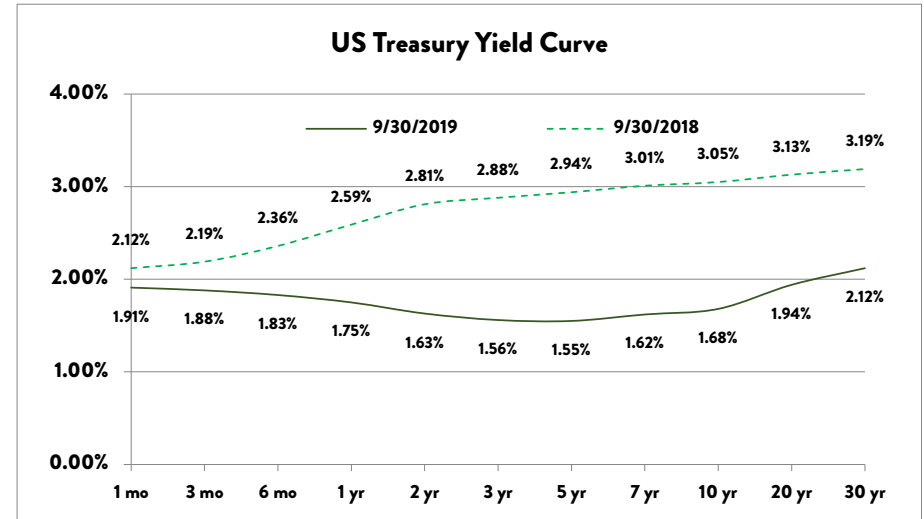
Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$2.56	\$3.20	\$1.79	-20.2%	Sep-19
Spot Oil	\$54.81	\$93.21	\$30.32	-41.2%	Aug-19
Case-Shiller Home Price Index	216.1	216.1	170.6	26.7%*	Jul-19
Medical Care CPI	502.3	502.3	437.5	14.8%*	Sep-19

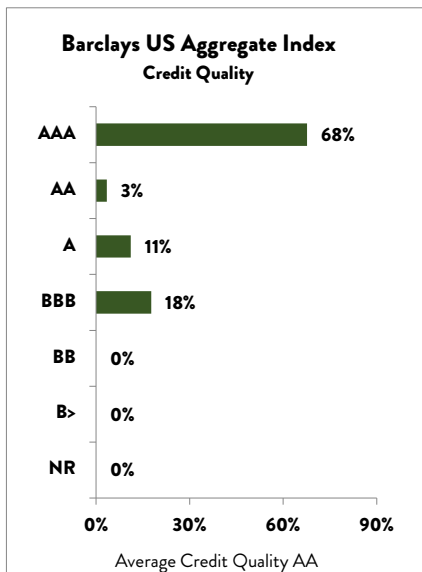
*% Off Low

3Q2019 Bond Market Data

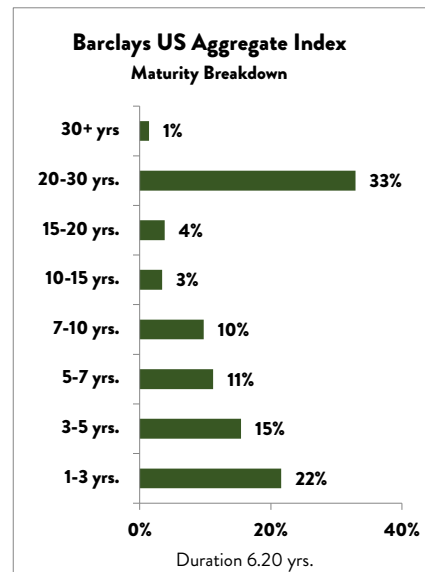
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.58%	1.84%	2.35%	1.44%	0.90%	0.49%
Barclays US Aggregate	2.27%	8.52%	10.30%	2.92%	3.38%	3.75%
Barclays Short US Treasury	0.56%	1.95%	2.56%	1.57%	1.05%	0.62%
Barclays Int. US Treasury	1.18%	5.22%	7.58%	1.80%	2.19%	2.39%
Barclays Long US Treasury	7.92%	19.77%	24.79%	4.07%	6.77%	6.87%
Barclays US TIPS	1.35%	7.58%	7.13%	2.21%	2.45%	3.46%
Barclays US Credit	2.98%	12.61%	12.63%	4.33%	4.54%	5.32%
Barclays US Mortgage-Backed	1.37%	5.60%	7.80%	2.32%	2.80%	3.14%
Barclays US Asset-Backed	0.92%	4.13%	5.42%	2.24%	2.25%	2.82%
Barclays US 20-Yr Municipal	2.29%	8.59%	10.58%	4.04%	4.71%	5.24%
Barclays US High Yield	1.33%	11.41%	6.36%	6.07%	5.37%	7.94%
Barclays Global	0.71%	6.32%	7.60%	1.59%	1.99%	2.34%
Barclays International	-0.58%	4.38%	5.34%	0.43%	0.87%	1.27%
Barclays Emerging Market	1.28%	10.79%	10.60%	4.42%	5.04%	6.66%



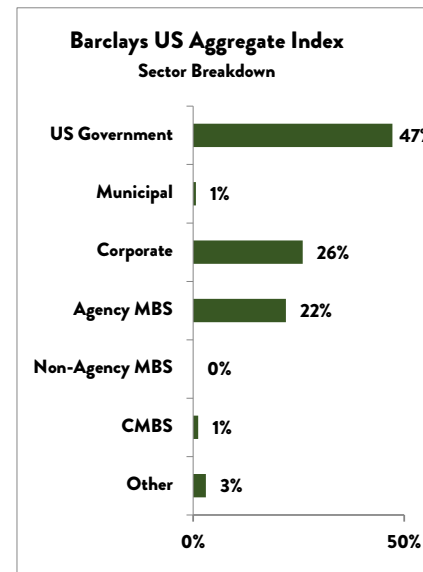
Source: Department of US Treasury



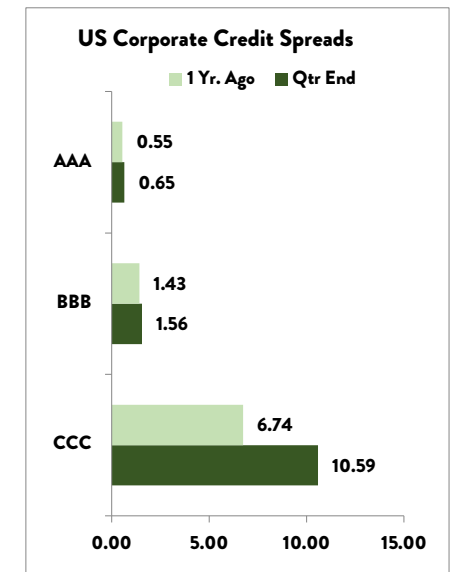
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

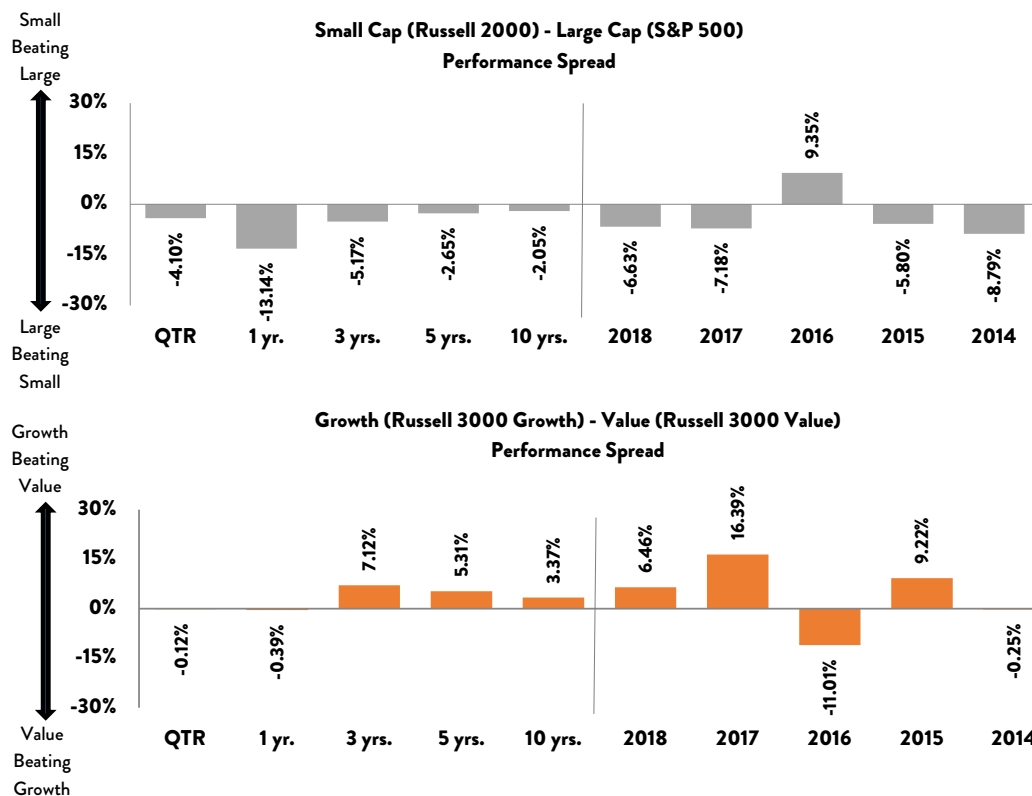
3Q2019 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

Index	Wgt.	Sector	QTR	YTD	1 yr.
	S&P 500 Index	4%	Utilities	9.33%	25.40%
3%		Real Estate	7.71%	29.71%	24.74%
8%		Consumer Staples	6.11%	23.28%	16.85%
22%		Information Technology	3.34%	31.37%	8.59%
10%		Communication Services	2.22%	21.74%	5.69%
13%		Financials	2.01%	19.60%	3.92%
9%		Industrials	0.99%	22.58%	1.39%
10%		Consumer Discretionary	0.51%	22.46%	2.36%
3%		Materials	-0.12%	17.11%	2.70%
14%		Health Care	-2.25%	5.64%	-3.57%
S&P Midcap 400 Index	5%	Energy	-6.30%	6.00%	-19.21%
	11%	Real Estate	7.26%	20.85%	8.09%
	5%	Utilities	3.28%	16.79%	15.94%
	3%	Consumer Staples	1.69%	7.59%	-1.03%
	17%	Financials	1.20%	20.28%	1.31%
	15%	Information Technology	1.08%	28.47%	6.82%
	12%	Consumer Discretionary	0.94%	17.45%	-3.87%
	16%	Industrials	-0.71%	23.20%	0.31%
	6%	Materials	-2.84%	13.08%	-8.97%
	10%	Health Care	-4.13%	10.49%	-11.53%
S&P Smallcap 600 Index	2%	Communication Services	-4.25%	12.00%	0.84%
	2%	Energy	-22.95%	-22.68%	-54.90%
	2%	Utilities	6.58%	22.90%	15.97%
	7%	Real Estate	6.47%	23.50%	9.71%
	14%	Information Technology	3.31%	24.97%	2.89%
	4%	Consumer Staples	2.14%	7.72%	-7.72%
	14%	Consumer Discretionary	1.27%	10.11%	-11.40%
	18%	Industrials	0.57%	20.86%	-7.33%
	18%	Financials	-0.56%	11.74%	-4.12%
	2%	Communication Services	-1.40%	2.87%	-18.80%
5%	Materials	-2.85%	12.23%	-17.47%	
12%	Health Care	-3.76%	5.44%	-18.89%	
4%	Energy	-22.26%	-19.97%	-56.62%	

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	1.70%	20.55%	4.25%	13.39%	10.84%	13.24%
Russell 1000 Value	1.36%	17.81%	4.00%	9.43%	7.79%	11.46%
Russell 1000 Growth	1.49%	23.30%	3.71%	16.89%	13.39%	14.94%
Russell Mid Cap	0.48%	21.93%	3.19%	10.69%	9.10%	13.07%
Russell Mid Cap Value	1.22%	19.47%	1.60%	7.82%	7.55%	12.29%
Russell Mid Cap Growth	-0.67%	25.23%	5.20%	14.50%	11.12%	14.08%
Russell 2000	-2.40%	14.18%	-8.89%	8.23%	8.19%	11.19%
Russell 2000 Value	-0.57%	12.82%	-8.24%	6.54%	7.17%	10.06%
Russell 2000 Growth	-4.17%	15.34%	-9.63%	9.79%	9.08%	12.25%
Russell 3000	1.16%	20.09%	2.92%	12.83%	10.44%	13.08%
DJ US Select REIT	6.83%	24.64%	16.41%	6.48%	9.70%	12.69%



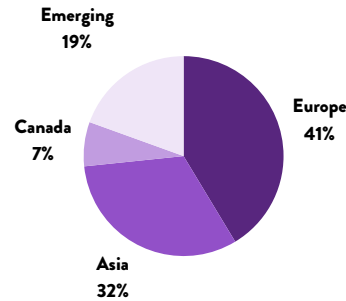
3Q2019 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	-1.80%	11.56%	-1.23%	6.33%	2.90%	4.45%
MSCI EAFE	-1.07%	12.80%	-1.34%	6.48%	3.27%	4.90%
Europe	-1.80%	13.72%	-0.75%	6.57%	2.38%	4.61%
United Kingdom	-2.49%	10.09%	-2.88%	4.63%	0.44%	4.76%
Germany	-4.03%	9.90%	-7.11%	3.48%	1.87%	4.42%
France	-1.72%	15.87%	-1.57%	10.23%	5.08%	4.35%
Pacific	0.23%	11.43%	-2.17%	6.54%	5.11%	5.61%
Japan	3.13%	11.12%	-4.69%	6.22%	5.61%	5.51%
Hong Kong	-11.94%	2.82%	-1.84%	5.51%	6.24%	7.74%
Australia	-1.39%	17.86%	6.06%	7.80%	3.77%	5.07%
Canada	0.45%	21.55%	2.96%	6.45%	1.00%	3.61%
MSCI EM	-4.25%	5.89%	-2.02%	5.97%	2.33%	3.37%
MSCI EM Latin America	-5.61%	6.32%	6.70%	6.80%	-0.78%	-0.48%
MSCI EM Asia	-3.41%	5.98%	-3.87%	6.33%	4.09%	5.20%
MSCI EM Eur/Mid East	-4.13%	9.99%	5.25%	7.95%	-0.42%	0.19%
MSCI ACWI Value ex-US	-2.80%	6.94%	-4.51%	5.24%	0.89%	3.05%
MSCI ACWI Growth ex-US	-0.85%	16.21%	2.03%	7.37%	4.86%	5.82%
MSCI ACWI Sm Cap ex-US	-1.19%	10.28%	-5.63%	4.64%	3.98%	6.13%

Regional Exposure

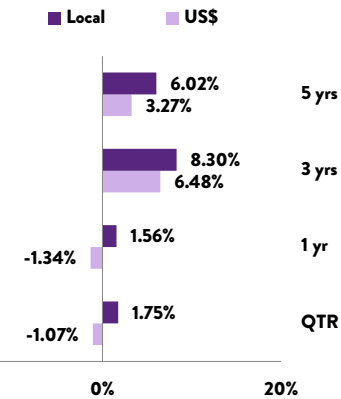
MSCI ACWI ex-US



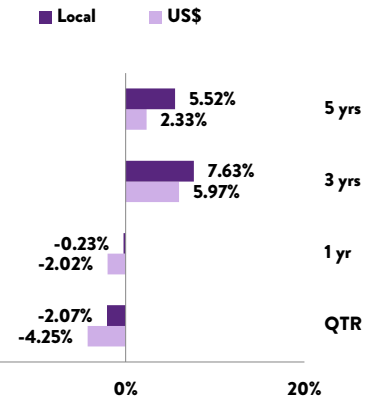
Top 10 Countries (MSCI AC World ex-US)

Japan	17%
UK	11%
China	9%
France	8%
Canada	7%
Switzerland	6%
Germany	6%
Australia	5%
South Korea	3%
Taiwan	3%

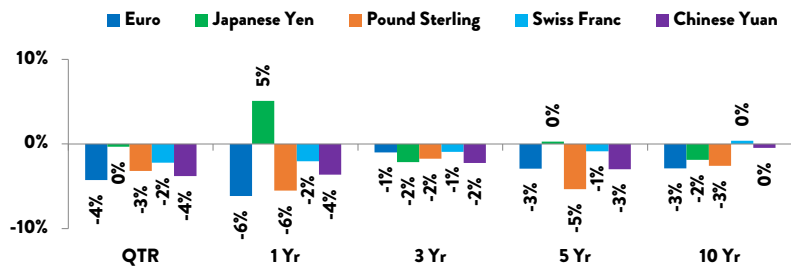
MSCI EAFE Index Return



MSCI Emerging Index Return

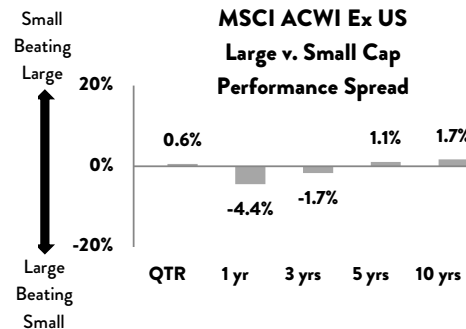


Foreign Currency v. US\$ Returns

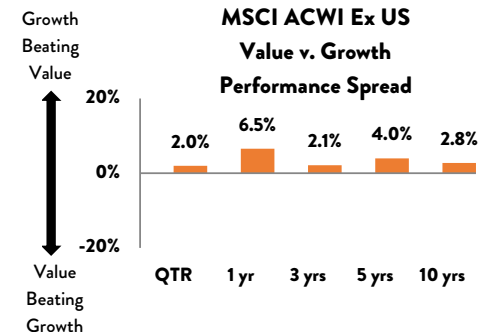


Exchange Rates	QTR	2Q19	1Q19	4Q18	3Q18	2Q18
Japanese Yen	108.11	107.84	110.68	109.70	113.48	110.71
Euro	0.92	0.88	0.89	0.87	0.86	0.86
British Pound	0.81	0.79	0.77	0.78	0.77	0.76
Swiss Franc	1.00	0.98	1.00	0.98	0.98	0.99
Chinese Yuan	7.15	6.87	6.71	6.88	6.87	6.62

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	3Q19
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 21.93%	US Bonds 2.27%
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 20.55%	Large Cap 1.70%
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 14.18%	TIPS 1.35%
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%	Global Balanced 12.84%	High Yield 1.33%
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%	Intl 11.56%	Core Real Estate 1.08%
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%	High Yield 11.41%	Global Bonds 0.71%
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%	US Bonds 8.52%	Global Balanced 0.60%
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 7.58%	Cash 0.58%
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%	Global Bonds 6.32%	Mid Cap 0.48%
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%	Emerging Markets 5.89%	Intl -1.80%
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. 3.13%	Commod. -1.84%
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 3.08%	Small Cap -2.40%
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 1.84%	Emerging Markets -4.25%

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

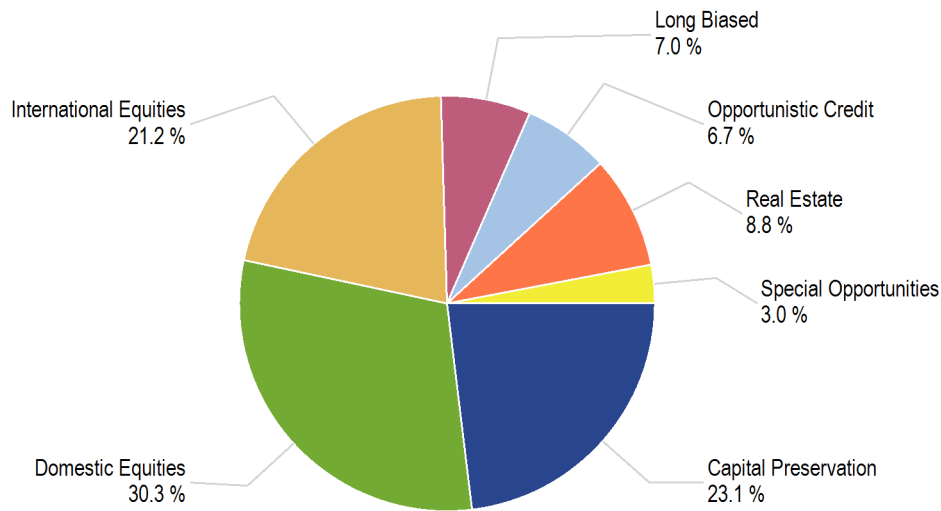
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Section 2

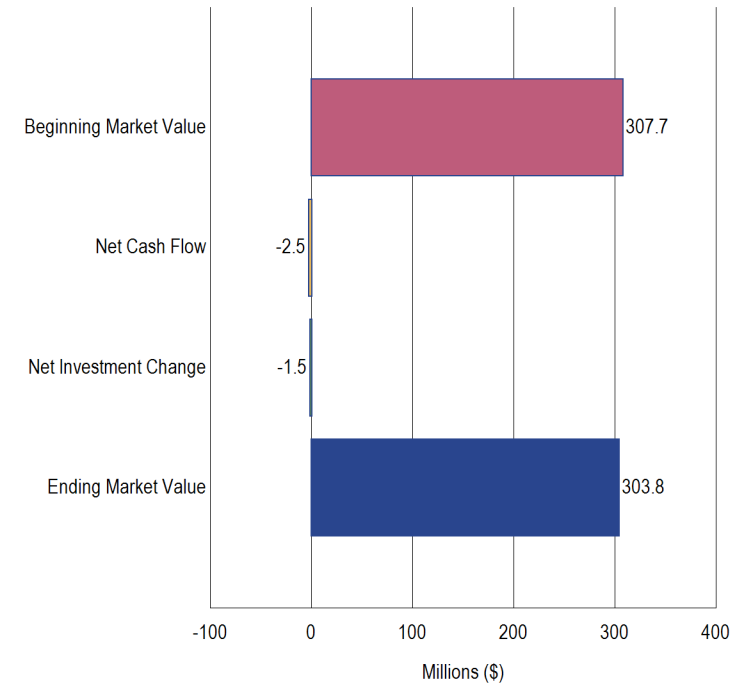
Spokane Employees' Retirement System

As of September 30, 2019

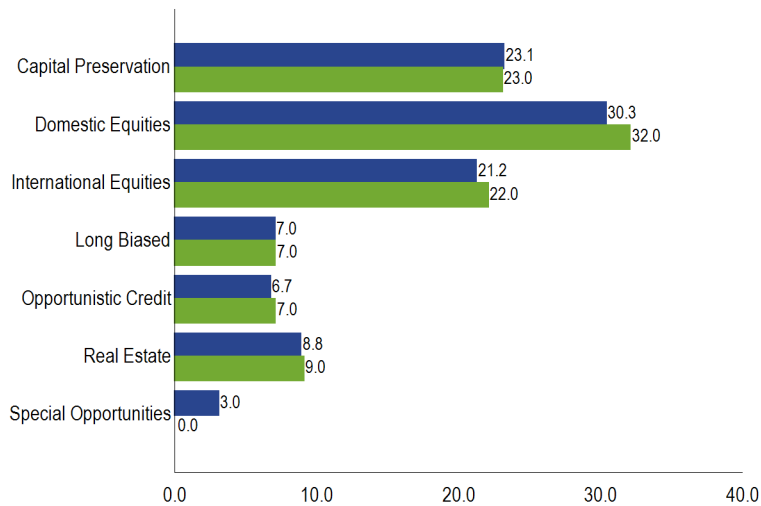
Current Allocation



Current Quarter



Actual vs Target Allocation (%)



Current Market Value:

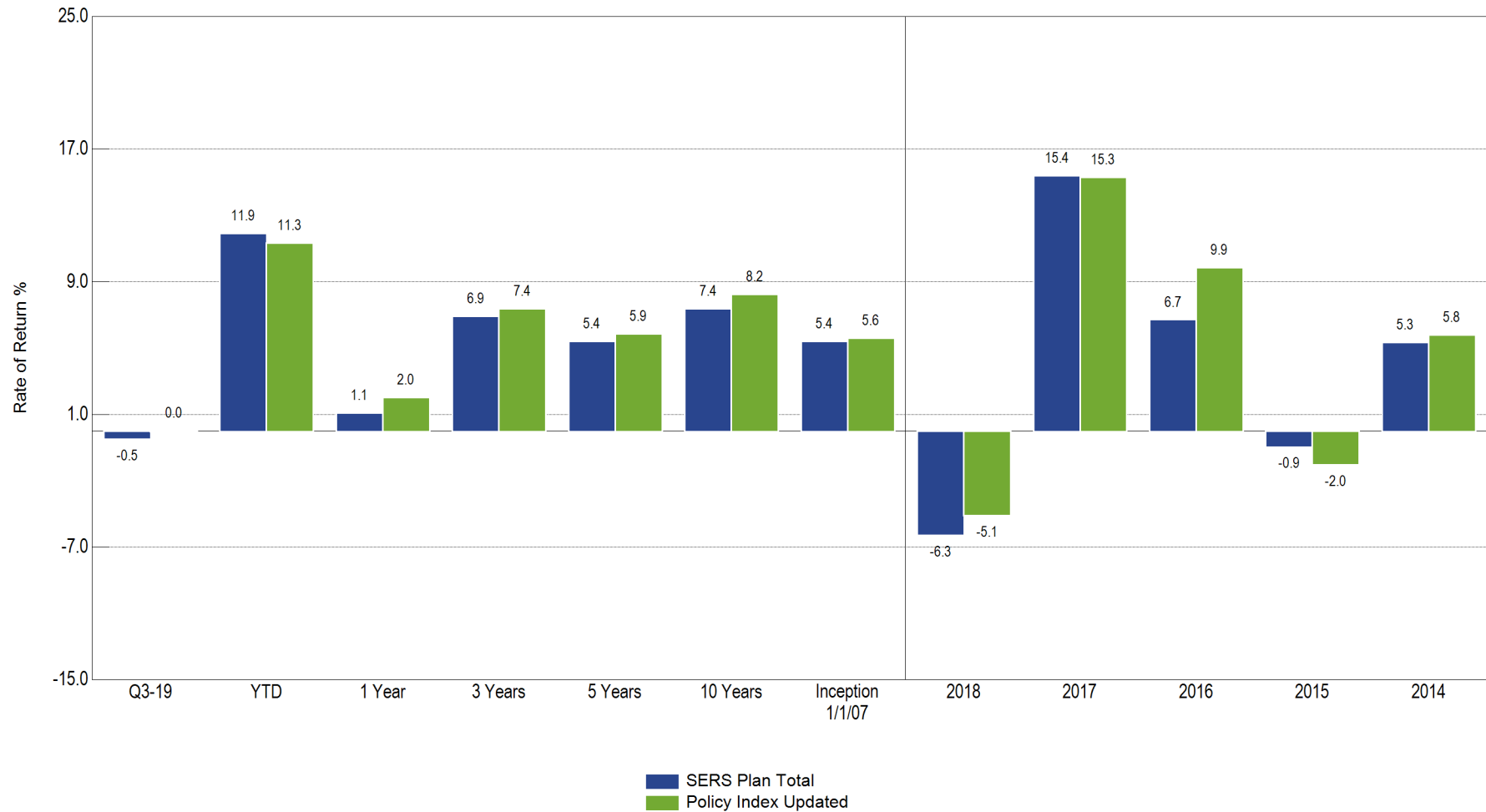
\$303,834,059

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

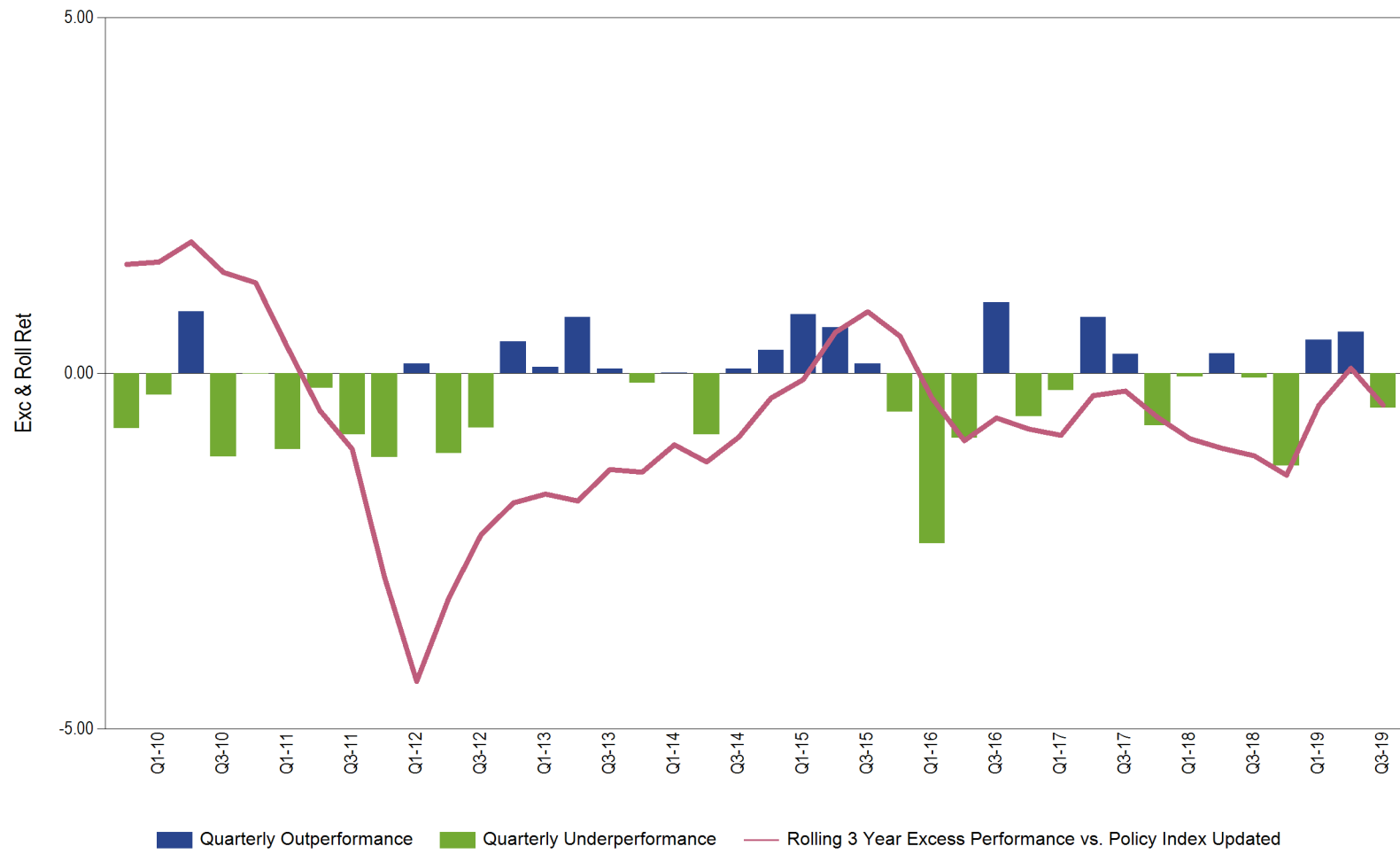
Return Summary



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	6.93	7.38
Total Return	22.27	23.81
Annualized Excess Return Over Risk Free	5.39	5.83
Annualized Excess Return	-0.45	0.00
RISK SUMMARY STATISTICS		
Beta	1.10	1.00
Upside Deviation	4.54	4.56
Downside Deviation	10.75	11.57
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	8.71	7.88
Alpha	-0.27	0.00
Sharpe Ratio	0.62	0.74
Excess Return Over Market / Risk	-0.05	0.00
Tracking Error	1.23	0.00
Information Ratio	-0.36	--
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	5.40	5.86
Total Return	30.09	32.92
Annualized Excess Return Over Risk Free	4.43	4.88
Annualized Excess Return	-0.45	0.00
RISK SUMMARY STATISTICS		
Beta	1.06	1.00
Upside Deviation	3.99	3.76
Downside Deviation	8.48	8.48
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	7.73	7.13
Alpha	-0.19	0.00
Sharpe Ratio	0.57	0.68
Excess Return Over Market / Risk	-0.06	0.00
Tracking Error	1.66	0.00
Information Ratio	-0.27	--
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

Spokane Employees' Retirement System

As of September 30, 2019

RISK RETURN STATISTICS

January 01, 2007 Through September 30, 2019

	SERS Plan Total	Policy Index Updated
RETURN SUMMARY STATISTICS		
Number of Periods	51	51
Maximum Return	12.42	16.64
Minimum Return	-14.46	-17.38
Annualized Return	5.40	5.61
Total Return	95.65	100.58
Annualized Excess Return Over Risk Free	4.54	4.75
Annualized Excess Return	-0.21	0.00
RISK SUMMARY STATISTICS		
Beta	0.88	1.00
Upside Deviation	5.98	7.31
Downside Deviation	9.16	10.15
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	10.99	12.29
Alpha	0.10	0.00
Sharpe Ratio	0.41	0.39
Excess Return Over Market / Risk	-0.02	0.00
Tracking Error	2.52	0.00
Information Ratio	-0.08	--
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 September 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	-0.48	11.91	1.09	6.93	5.40	7.38	-6.27	15.40	6.71	-0.94	5.34	18.89	11.70	5.40	Jan-07
Policy Index Updated	<u>0.01</u>	<u>11.34</u>	<u>2.03</u>	<u>7.38</u>	<u>5.86</u>	<u>8.23</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>5.61</u>	Jan-07
Over/Under	-0.49	0.57	-0.94	-0.45	-0.46	-0.85	-1.18	0.11	-3.15	1.06	-0.45	0.97	-1.48	-0.21	
70/30 ACWI/Barclays Aggregate Bond	0.69	14.06	4.32	7.79	5.83	7.17	-6.48	17.50	6.42	-1.30	4.77	14.87	12.66	5.06	Jan-07
InvMetrics All DB \$250mm-\$1B Net Rank	98	69	98	76	87	76	83	42	74	47	63	8	61	63	Jan-07
Capital Preservation	0.37	6.98	4.47	4.31	3.45	--	-0.94	5.85	8.12	-1.74	1.65	2.70	--	3.60	Jul-12
Capital Preservation Index	<u>1.25</u>	<u>7.78</u>	<u>6.25</u>	<u>3.70</u>	<u>3.38</u>	<u>4.33</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>3.80</u>	Jul-12
Over/Under	-0.88	-0.80	-1.78	0.61	0.07		-0.22	1.25	2.69	-1.16	-2.58	-0.63		-0.20	
Domestic Equity	-0.07	19.24	-0.19	11.22	9.11	--	-7.80	19.86	10.91	-0.32	11.10	36.38	--	12.47	Jul-12
Domestic Equity Index	<u>0.67</u>	<u>19.61</u>	<u>1.37</u>	<u>12.10</u>	<u>10.10</u>	<u>12.94</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>13.13</u>	Jul-12
Over/Under	-0.74	-0.37	-1.56	-0.88	-0.99		-1.50	-0.25	-3.01	-0.26	-0.34	2.47		-0.66	
All Cap Blend MStar MF Rank	64	42	51	39	39	--	45	37	70	33	38	35	--	39	Jul-12
International Equity Total	-1.13	13.89	-0.22	6.35	4.16	6.17	-15.78	28.45	3.91	-1.32	-3.58	20.93	18.48	4.24	Apr-07
International Equity Index	<u>-2.02</u>	<u>10.55</u>	<u>-2.13</u>	<u>6.00</u>	<u>3.06</u>	<u>4.65</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>2.45</u>	Apr-07
Over/Under	0.89	3.34	1.91	0.35	1.10	1.52	-0.82	-0.90	-1.43	4.17	0.05	7.45	1.12	1.79	
Foreign MStar MF Rank	35	36	25	36	33	35	50	42	24	67	32	56	55	18	Apr-07
Long Biased	-0.28	9.14	2.50	4.51	2.88	--	2.43	1.19	-2.99	4.04	3.62	9.56	--	4.25	Jul-12
HFRI Fund of Funds Composite Index	<u>-0.82</u>	<u>5.29</u>	<u>0.08</u>	<u>3.18</u>	<u>1.96</u>	<u>2.68</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>3.42</u>	Jul-12
Over/Under	0.54	3.85	2.42	1.33	0.92		6.45	-6.58	-3.50	4.31	0.26	0.60		0.83	
S&P 500	1.70	20.55	4.25	13.39	10.84	13.24	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	13.73	Jul-12
Opportunistic Credit	-3.66	-0.06	-9.30	1.39	3.01	--	-5.68	7.08	14.52	2.35	2.32	--	--	3.94	Oct-13
HFRI ED: Distressed/Restructuring Index	<u>-1.71</u>	<u>3.03</u>	<u>-2.83</u>	<u>4.35</u>	<u>1.84</u>	<u>5.08</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>2.68</u>	Oct-13
Over/Under	-1.95	-3.09	-6.47	-2.96	1.17		-3.98	0.83	-0.63	10.41	3.71			1.26	

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%

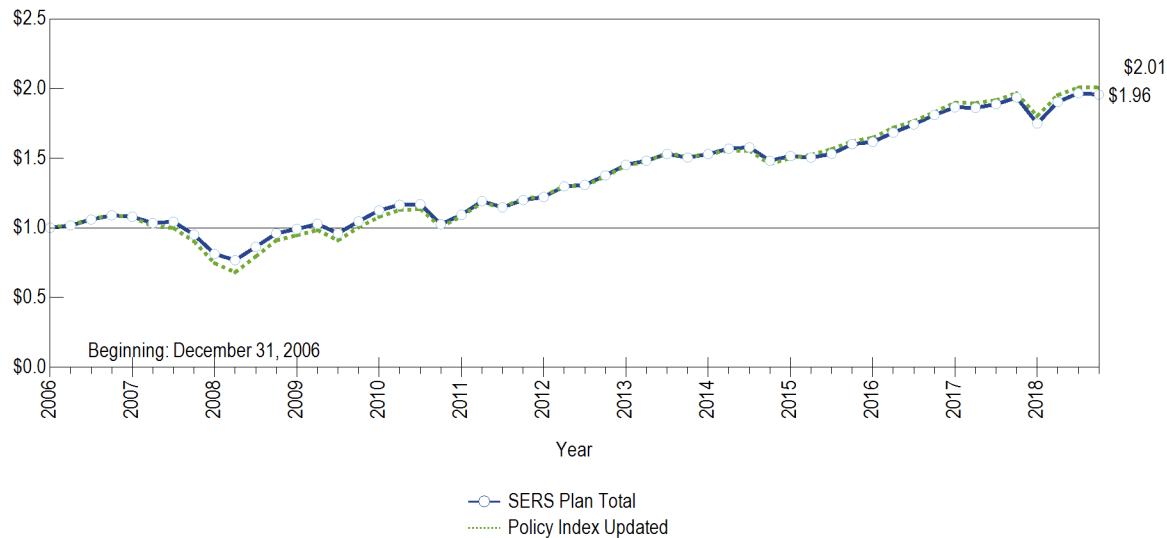
Spokane Employees' Retirement System

As of September 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	4.47	15.29	14.14	9.10	10.52	13.20	3.68	10.01	8.09	6.66	25.00	8.71	15.17	6.02	Apr-07
NCREIF-ODCE	1.31	3.77	5.59	7.30	9.34	10.86	8.35	7.62	8.76	15.02	12.48	13.94	10.94	5.91	Apr-07
Over/Under	3.16	11.52	8.55	1.80	1.18	2.34	-4.67	2.39	-0.67	-8.36	12.52	-5.23	4.23	0.11	
FTSE NAREIT All REIT	7.24	27.37	19.58	9.02	10.90	13.30	-4.10	9.27	9.28	2.29	27.15	3.21	20.14	5.99	Apr-07
US Real Estate Equity Rank	95	99	80	35	59	67	1	11	32	7	94	7	98	74	Apr-07
Special Opportunities	-12.13	-2.50	-13.83	-0.43	-1.75	--	-11.43	25.32	-21.90	2.13	25.88	31.60	--	4.97	Jul-12
Russell 3000	1.16	20.09	2.92	12.83	10.44	13.08	-5.24	21.13	12.73	0.48	12.56	33.55	16.42	13.47	Jul-12
Over/Under	-13.29	-22.59	-16.75	-13.26	-12.19		-6.19	4.19	-34.63	1.65	13.32	-1.95		-8.50	

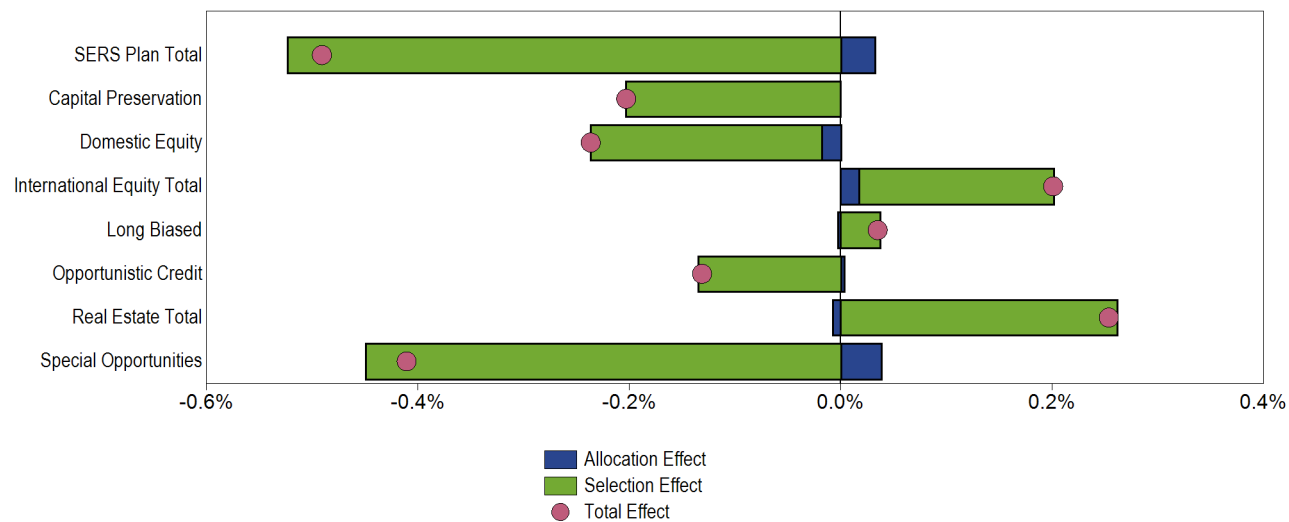
Growth of a Dollar



Attribution Summary
3 Months Ending September 30, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	0.4%	1.3%	-0.9%	-0.2%	0.0%	-0.2%
Domestic Equity	-0.1%	0.7%	-0.7%	-0.2%	0.0%	-0.2%
International Equity Total	-1.1%	-2.0%	0.9%	0.2%	0.0%	0.2%
Long Biased	-0.3%	-0.8%	0.5%	0.0%	0.0%	0.0%
Opportunistic Credit	-3.7%	-1.7%	-2.0%	-0.1%	0.0%	-0.1%
Real Estate Total	4.5%	1.3%	3.2%	0.3%	0.0%	0.3%
Special Opportunities	-12.1%	1.2%	-13.3%	-0.4%	0.0%	-0.4%
Total	-0.5%	0.0%	-0.5%	-0.5%	0.0%	-0.5%

Attribution Effects
3 Months Ending September 30, 2019

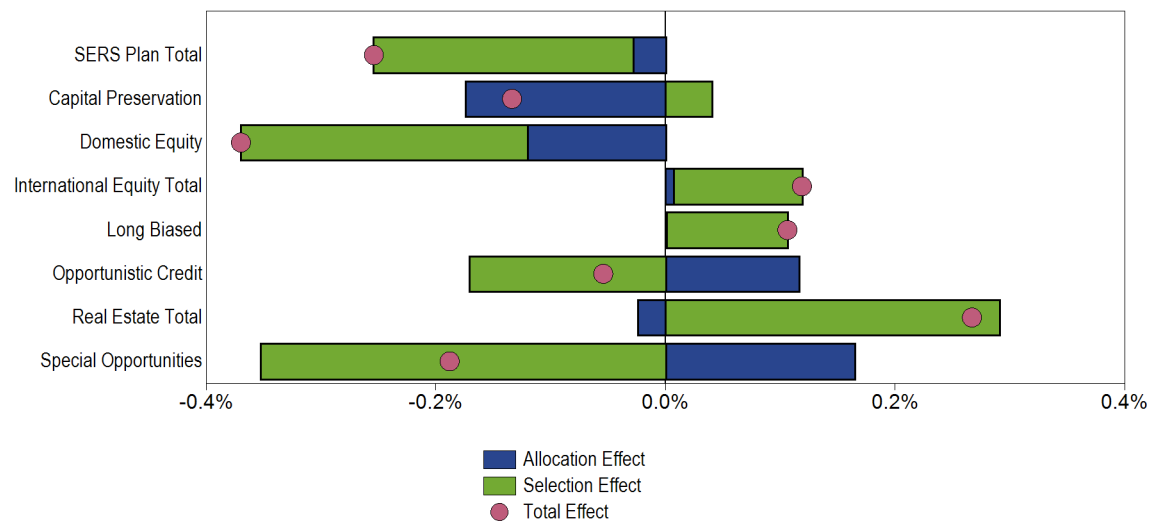


Attributions reflect new policy index

Attribution Summary
2 Years 9 Months Ending September 30, 2019

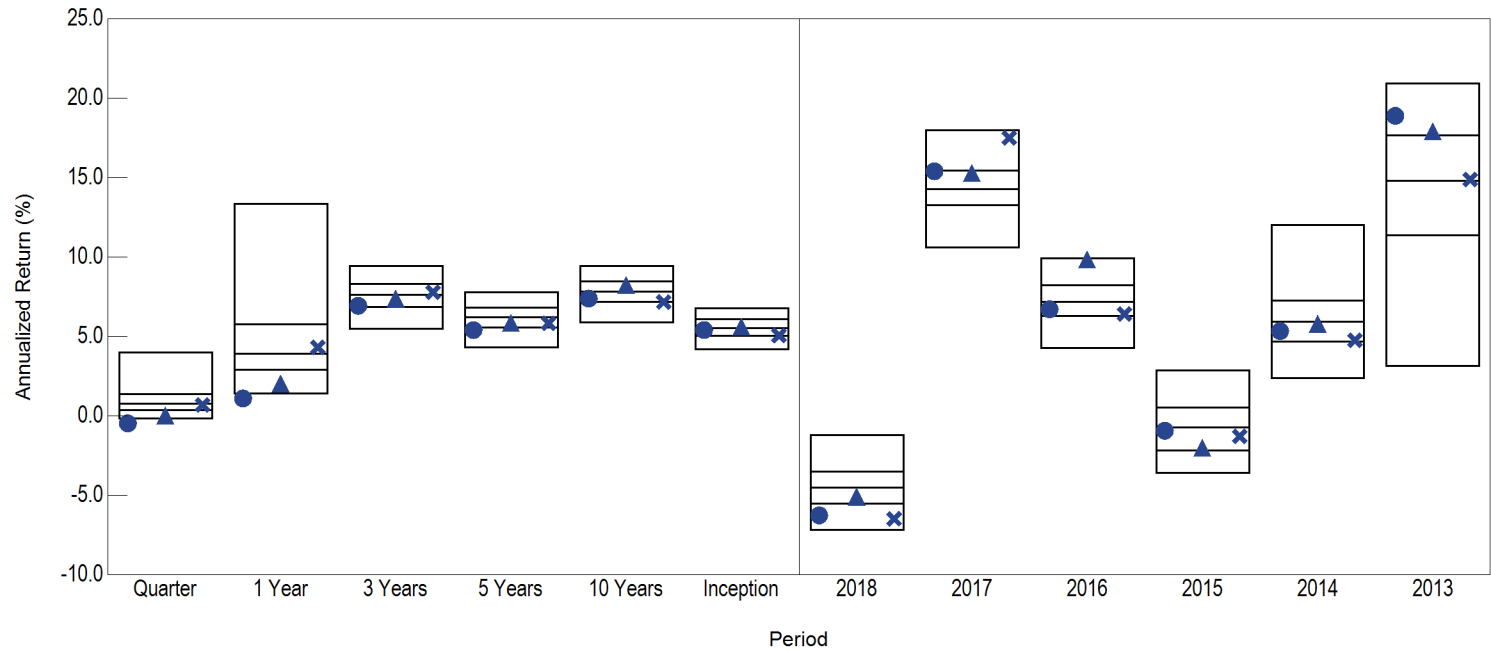
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	4.3%	4.2%	0.1%	0.0%	-0.2%	-0.1%
Domestic Equity	10.6%	11.4%	-0.9%	-0.2%	-0.1%	-0.4%
International Equity Total	7.9%	7.4%	0.5%	0.1%	0.0%	0.1%
Long Biased	4.6%	3.2%	1.4%	0.1%	0.0%	0.1%
Opportunistic Credit	0.3%	2.7%	-2.4%	-0.2%	0.1%	-0.1%
Real Estate Total	10.5%	7.2%	3.3%	0.3%	0.0%	0.3%
Special Opportunities	2.9%	12.4%	-9.5%	-0.4%	0.2%	-0.2%
Total	7.2%	7.4%	-0.3%	-0.2%	0.0%	-0.3%

Attribution Effects
2 Years 9 Months Ending September 30, 2019



Attributions reflect new policy index

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



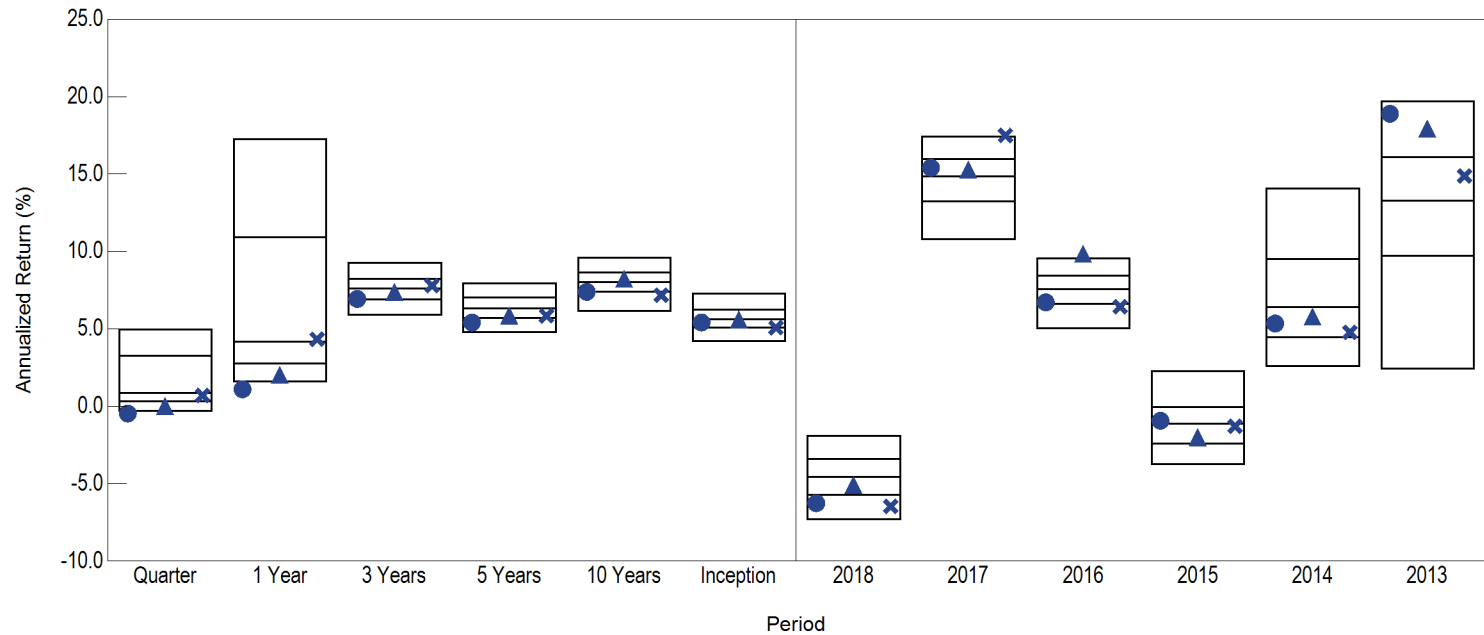
Return (Rank)

	Quarter	1 Year	3 Years	5 Years	10 Years	Inception	2018	2017	2016	2015	2014	2013
5th Percentile	4.0	13.4	9.4	7.8	9.4	6.8	-1.2	18.0	9.9	2.9	12.0	20.9
25th Percentile	1.4	5.8	8.4	6.9	8.5	6.1	-3.5	15.5	8.3	0.6	7.3	17.7
Median	0.8	4.0	7.7	6.3	7.9	5.6	-4.5	14.3	7.2	-0.7	6.0	14.9
75th Percentile	0.4	2.9	6.9	5.6	7.2	5.1	-5.5	13.3	6.3	-2.1	4.7	11.4
95th Percentile	-0.1	1.5	5.5	4.3	5.9	4.2	-7.1	10.7	4.3	-3.5	2.4	3.2
# of Portfolios	581	577	554	520	405	348	538	326	321	330	285	268
● SERS Plan Total	-0.5 (98)	1.1 (98)	6.9 (75)	5.4 (81)	7.4 (69)	5.4 (61)	-6.3 (87)	15.4 (27)	6.7 (66)	-0.9 (55)	5.3 (66)	18.9 (17)
▲ Policy Index Updated	0.0 (92)	2.0 (91)	7.4 (59)	5.9 (68)	8.2 (34)	5.6 (49)	-5.1 (68)	15.3 (29)	9.9 (6)	-2.0 (72)	5.8 (54)	17.9 (24)
✕ 70/30 ACWI/Barclays Aggregate Bond	0.7 (57)	4.3 (44)	7.8 (44)	5.8 (69)	7.2 (77)	5.1 (76)	-6.5 (89)	17.5 (8)	6.4 (73)	-1.3 (60)	4.8 (74)	14.9 (50)

Spokane Employees' Retirement System

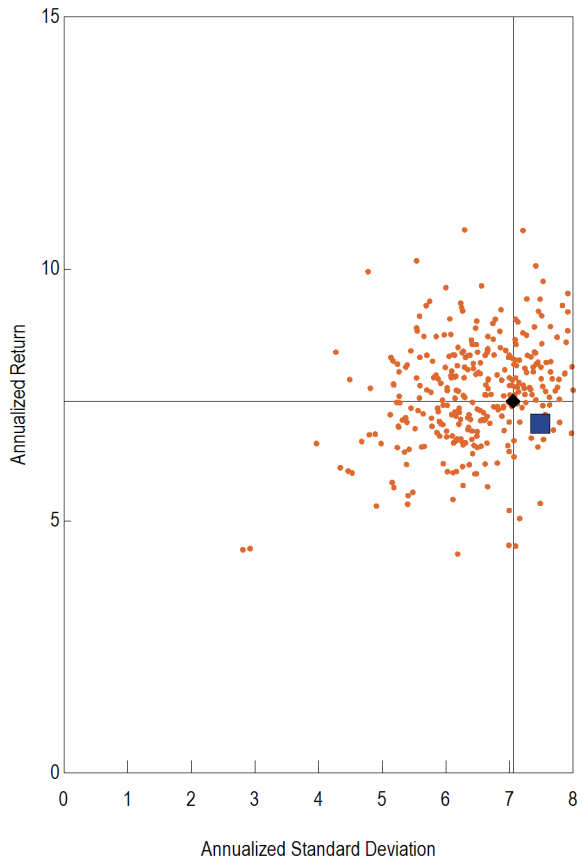
As of September 30, 2019

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

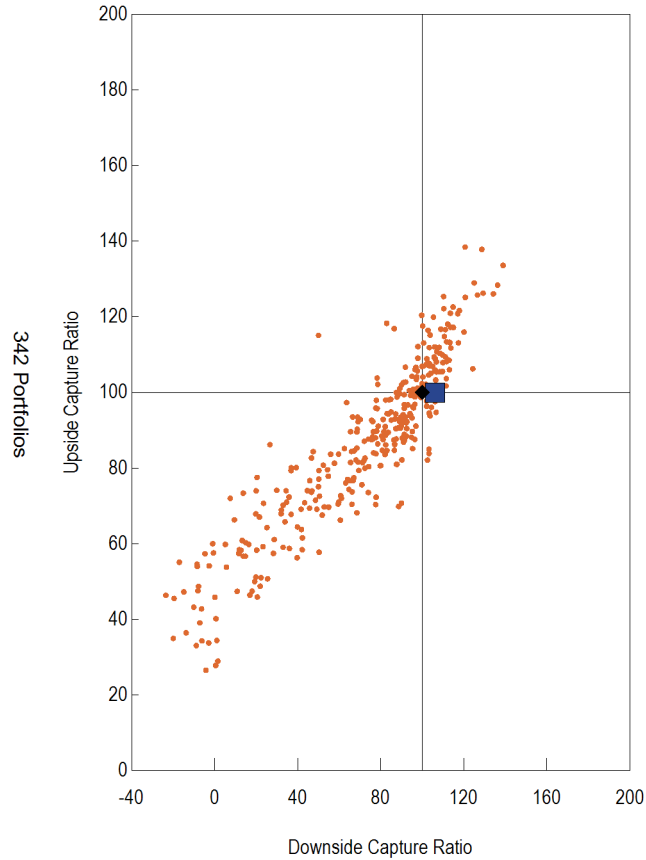


	Quarter	1 Year	3 Years	5 Years	10 Years	Inception	2018	2017	2016	2015	2014	2013
Return (Rank)												
5th Percentile	5.0	17.3	9.3	7.9	9.6	7.3	-1.9	17.4	9.6	2.2	14.1	19.7
25th Percentile	3.3	11.0	8.3	7.1	8.7	6.3	-3.4	16.0	8.5	0.0	9.6	16.1
Median	0.9	4.2	7.6	6.4	8.1	5.6	-4.5	14.9	7.6	-1.1	6.4	13.3
75th Percentile	0.4	2.8	6.9	5.7	7.4	5.1	-5.7	13.3	6.6	-2.4	4.5	9.8
95th Percentile	-0.3	1.6	5.9	4.8	6.2	4.2	-7.2	10.8	5.1	-3.7	2.6	2.5
# of Portfolios	360	359	342	319	255	225	326	237	248	231	212	190
● SERS Plan Total	-0.5 (98)	1.1 (98)	6.9 (76)	5.4 (87)	7.4 (76)	5.4 (63)	-6.3 (83)	15.4 (42)	6.7 (74)	-0.9 (47)	5.3 (63)	18.9 (8)
▲ Policy Index Updated	0.0 (90)	2.0 (91)	7.4 (60)	5.9 (70)	8.2 (44)	5.6 (53)	-5.1 (62)	15.3 (43)	9.9 (4)	-2.0 (69)	5.8 (61)	17.9 (14)
✕ 70/30 ACWI/Barclays Aggregate Bond	0.7 (60)	4.3 (50)	7.8 (45)	5.8 (72)	7.2 (84)	5.1 (77)	-6.5 (86)	17.5 (4)	6.4 (78)	-1.3 (56)	4.8 (73)	14.9 (37)

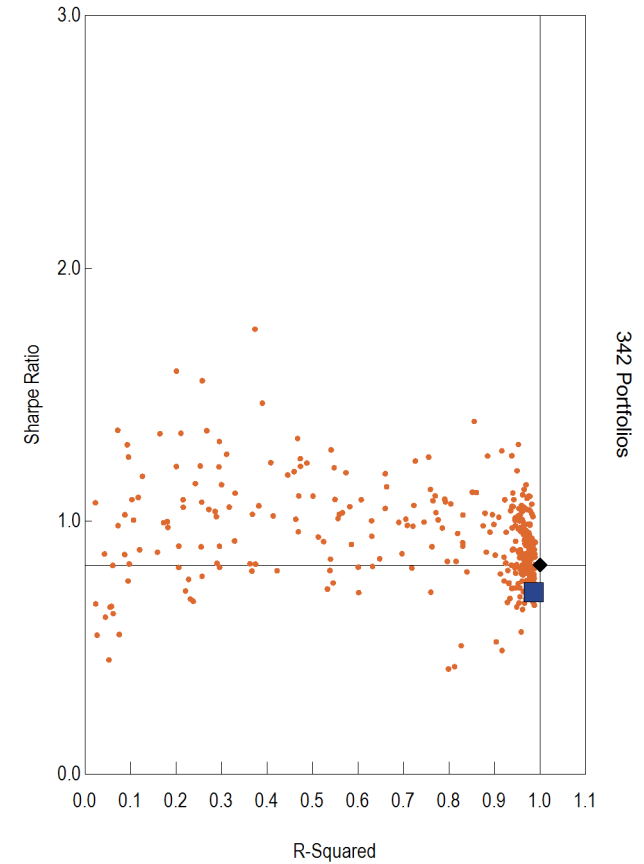
Annualized Return vs. Annualized Standard Deviation
3 Years Ending September 30, 2019



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



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

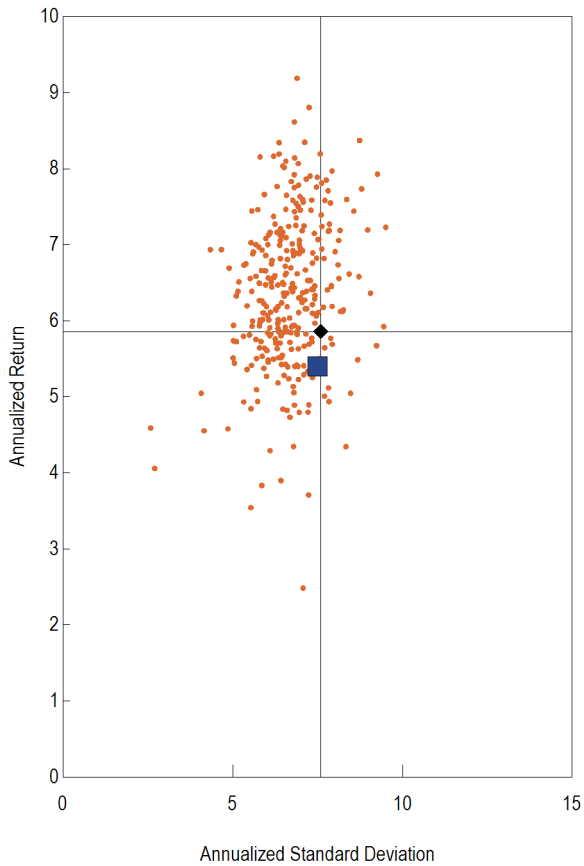


- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

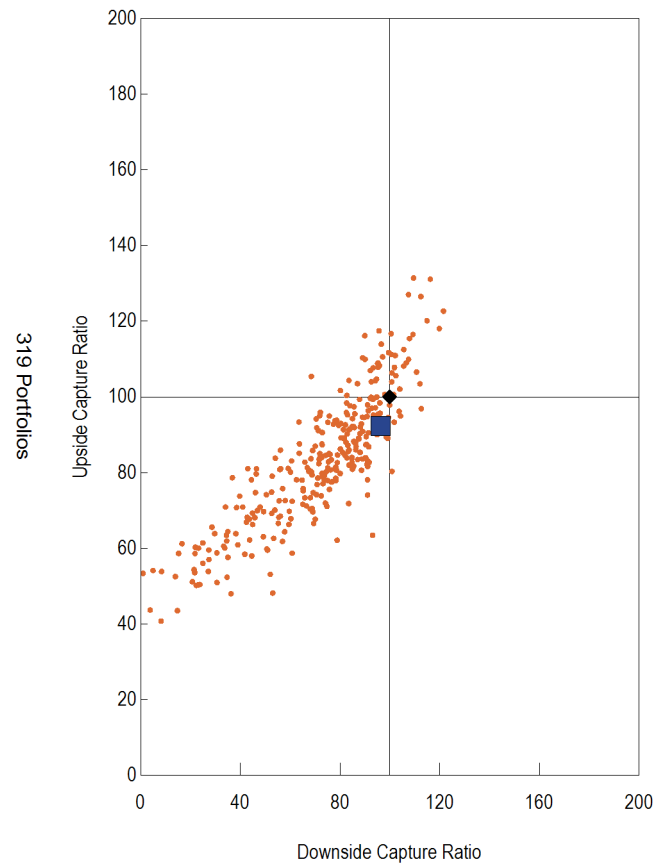
- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

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

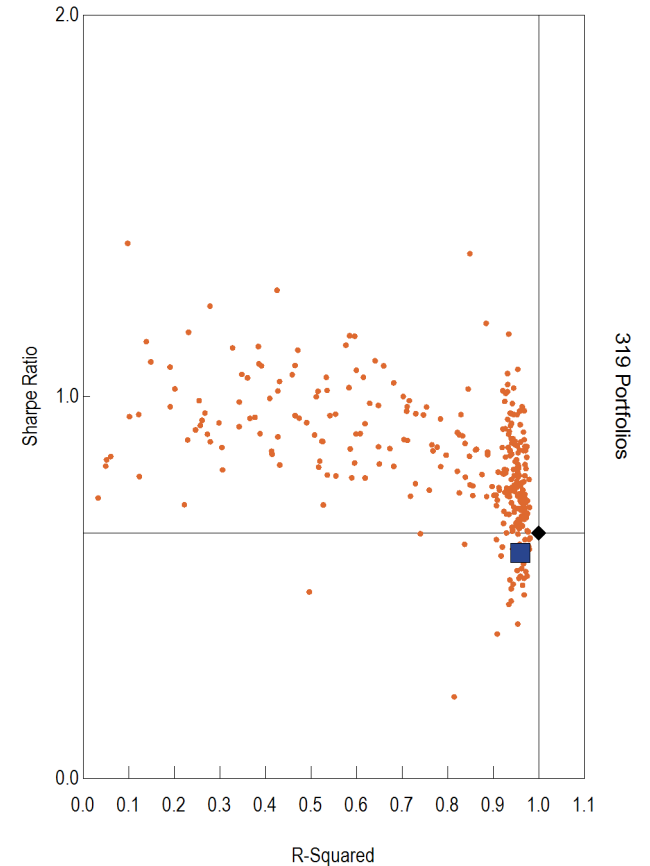
Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2019



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



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

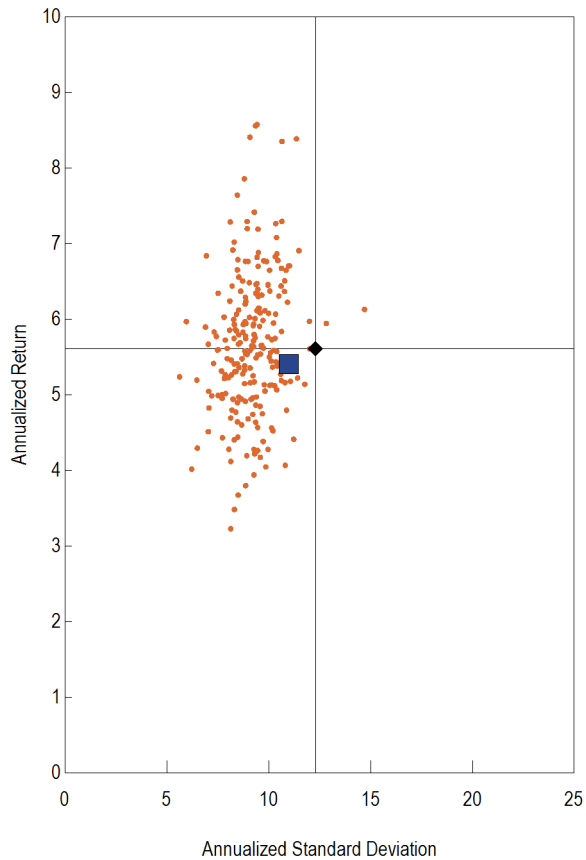


- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

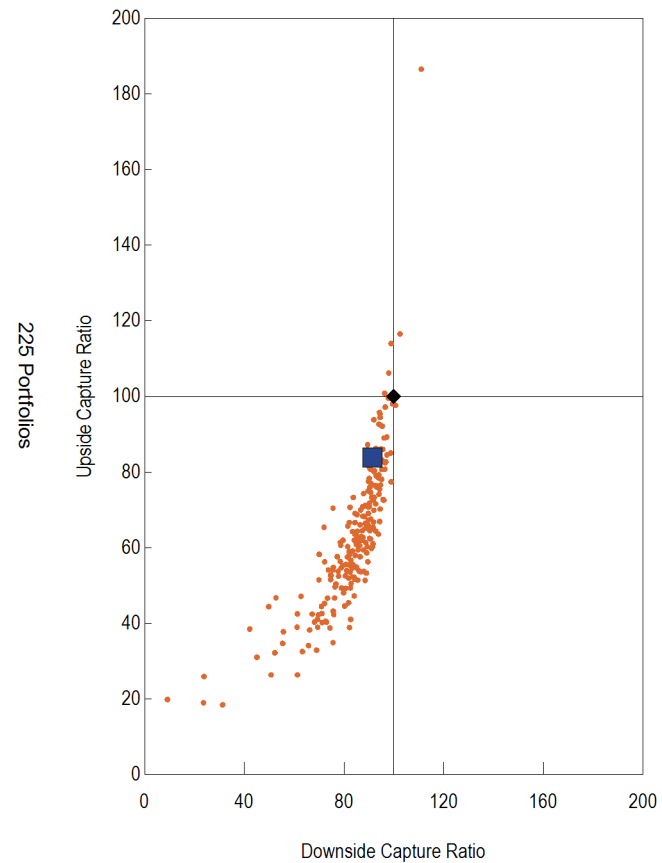
- SERS Plan Total
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- InvMetrics All DB \$250mm-\$1B Net

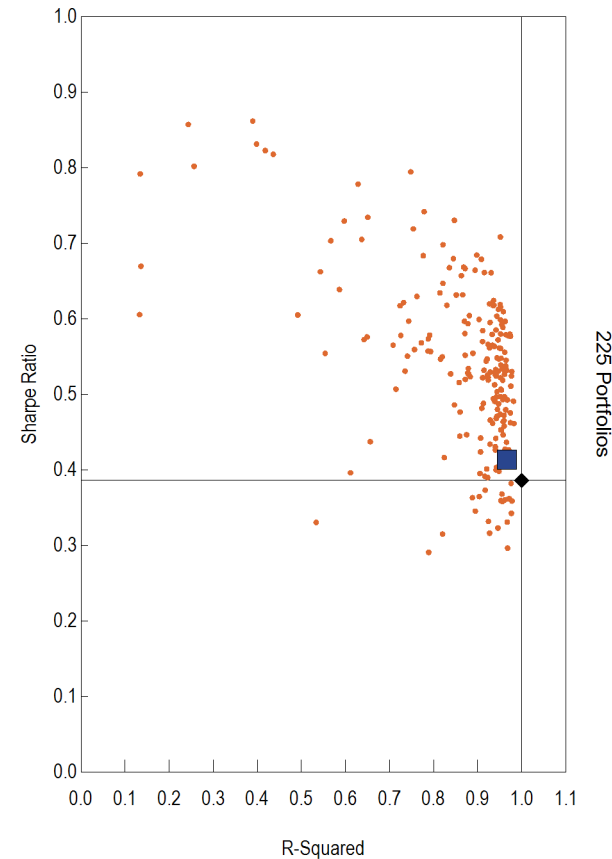
Annualized Return vs. Annualized Standard Deviation
12 Years 9 Months Ending September 30, 2019



Upside Capture Ratio vs. Downside Capture Ratio
12 Years 9 Months Ending September 30, 2019



Sharpe Ratio vs. R-Squared
12 Years 9 Months Ending September 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 September 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	0.37	6.98	4.47	4.31	3.45	-0.94	5.85	8.12	-1.74	1.65	2.70	3.60	Jul-12
Capital Preservation Index	1.25	7.78	6.25	3.70	3.38	-0.72	4.60	5.43	-0.58	4.23	3.33	3.80	Jul-12
Over/Under	-0.88	-0.80	-1.78	0.61	0.07	-0.22	1.25	2.69	-1.16	-2.58	-0.63	-0.20	
Total Return Bond	2.28	9.09	10.44	3.47	--	-0.09	4.20	--	--	--	--	3.47	Sep-16
BBgBarc US Aggregate TR	2.27	8.52	10.30	2.92	3.38	0.01	3.54	2.65	0.55	5.97	-2.02	2.92	Sep-16
Over/Under	0.01	0.57	0.14	0.55		-0.10	0.66					0.55	
Intermediate Core Bond MStar MF Rank	36	28	26	8	--	38	38	--	--	--	--	8	Sep-16
High Yield	-0.63	7.23	1.47	4.63	3.67	-3.46	8.22	16.67	-7.05	0.68	7.00	4.95	Jul-12
BBgBarc US High Yield TR	1.33	11.41	6.36	6.07	5.37	-2.08	7.50	17.13	-4.47	2.45	7.44	6.32	Jul-12
Over/Under	-1.96	-4.18	-4.89	-1.44	-1.70	-1.38	0.72	-0.46	-2.58	-1.77	-0.44	-1.37	
High Yield Bond MStar MF Rank	97	88	97	86	84	74	18	13	92	70	51	87	Jul-12
Absolute Return	-0.77	5.52	1.19	4.23	3.55	-1.11	5.33	7.75	0.29	3.15	4.65	3.87	Jul-12
HFRI FOF: Conservative Index	-0.08	4.57	1.18	3.13	2.04	-0.87	4.12	1.89	0.37	3.14	7.70	3.34	Jul-12
Over/Under	-0.69	0.95	0.01	1.10	1.51	-0.24	1.21	5.86	-0.08	0.01	-3.05	0.53	
BBgBarc US Aggregate TR	2.27	8.52	10.30	2.92	3.38	0.01	3.54	2.65	0.55	5.97	-2.02	2.85	Jul-12
Domestic Equity	-0.07	19.24	-0.19	11.22	9.11	-7.80	19.86	10.91	-0.32	11.10	36.38	12.47	Jul-12
Domestic Equity Index	0.67	19.61	1.37	12.10	10.10	-6.30	20.11	13.92	-0.06	11.44	33.91	13.13	Jul-12
Over/Under	-0.74	-0.37	-1.56	-0.88	-0.99	-1.50	-0.25	-3.01	-0.26	-0.34	2.47	-0.66	
All Cap Blend MStar MF Rank	64	42	51	39	39	45	37	70	33	38	35	39	Jul-12
Domestic Large Cap Equity	0.14	19.39	1.00	11.68	8.88	-7.70	22.54	8.24	-0.32	12.85	34.81	7.92	Apr-07
S&P 500	1.70	20.55	4.25	13.39	10.84	-4.38	21.83	11.96	1.38	13.69	32.39	8.37	Apr-07
Over/Under	-1.56	-1.16	-3.25	-1.71	-1.96	-3.32	0.71	-3.72	-1.70	-0.84	2.42	-0.45	
Large Blend MStar MF Rank	90	59	73	63	63	78	24	83	53	39	26	54	Apr-07
Domestic Small/Mid Equity	-0.49	18.94	-2.52	10.25	9.25	-8.05	14.91	15.37	-0.39	8.69	38.60	12.25	Jul-12
Russell 2500	-1.28	17.72	-4.04	9.51	8.57	-10.00	16.81	17.59	-2.90	7.07	36.80	11.85	Jul-12
Over/Under	0.79	1.22	1.52	0.74	0.68	1.95	-1.90	-2.22	2.51	1.62	1.80	0.40	
SMID Blend MStar MF Rank	47	23	26	16	15	12	39	75	10	24	34	15	Jul-12

Spokane Employees' Retirement System

As of September 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	-1.13	13.89	-0.22	6.35	4.16	-15.78	28.45	3.91	-1.32	-3.58	20.93	4.24	Apr-07
International Equity Index	-2.02	10.55	-2.13	6.00	3.06	-14.96	29.35	5.34	-5.49	-3.63	13.48	2.45	Apr-07
Over/Under	0.89	3.34	1.91	0.35	1.10	-0.82	-0.90	-1.43	4.17	0.05	7.45	1.79	
Foreign MStar MF Rank	35	36	25	36	33	50	42	24	67	32	56	18	Apr-07
International Large Cap Equity	-1.11	14.71	0.95	6.70	4.83	-15.14	27.50	4.02	-1.13	-1.38	24.43	8.44	Jul-12
MSCI ACWI ex USA	-1.80	11.56	-1.23	6.33	2.90	-14.20	27.19	4.50	-5.66	-3.87	15.29	5.87	Jul-12
Over/Under	0.69	3.15	2.18	0.37	1.93	-0.94	0.31	-0.48	4.53	2.49	9.14	2.57	
Foreign Large Blend MStar MF Rank	39	16	11	14	5	51	31	23	56	12	14	4	Jul-12
International Small/Mid Cap Equity	0.38	16.43	-5.63	6.85	4.83	-20.33	37.08	-0.68	7.56	-12.10	28.79	8.10	Jul-12
MSCI ACWI xUS Small (net)	-1.19	10.28	-5.63	4.64	3.98	-18.20	31.65	3.91	2.60	-4.03	19.73	7.21	Jul-12
Over/Under	1.57	6.15	0.00	2.21	0.85	-2.13	5.43	-4.59	4.96	-8.07	9.06	0.89	
Emerging Markets Equity	-3.06	7.60	1.66	3.70	0.93	-14.62	23.58	7.03	-8.73	-2.07	6.06	3.43	Jul-12
MSCI Emerging Markets	-4.25	5.90	-2.02	5.97	2.33	-14.58	37.28	11.19	-14.92	-2.19	-2.60	3.39	Jul-12
Over/Under	1.19	1.70	3.68	-2.27	-1.40	-0.04	-13.70	-4.16	6.19	0.12	8.66	0.04	
Diversified Emerging Mkts MStar MF Rank	40	63	42	75	76	28	94	56	16	49	14	56	Jul-12
Long Biased	-0.28	9.14	2.50	4.51	2.88	2.43	1.19	-2.99	4.04	3.62	9.56	4.25	Jul-12
HFRI Fund of Funds Composite Index	-0.82	5.29	0.08	3.18	1.96	-4.02	7.77	0.51	-0.27	3.36	8.96	3.42	Jul-12
Over/Under	0.54	3.85	2.42	1.33	0.92	6.45	-6.58	-3.50	4.31	0.26	0.60	0.83	
S&P 500	1.70	20.55	4.25	13.39	10.84	-4.38	21.83	11.96	1.38	13.69	32.39	13.73	Jul-12
Opportunistic Credit	-3.66	-0.06	-9.30	1.39	3.01	-5.68	7.08	14.52	2.35	2.32	--	3.94	Oct-13
HFRI ED: Distressed/Restructuring Index	-1.71	3.03	-2.83	4.35	1.84	-1.70	6.25	15.15	-8.06	-1.39	14.05	2.68	Oct-13
Over/Under	-1.95	-3.09	-6.47	-2.96	1.17	-3.98	0.83	-0.63	10.41	3.71		1.26	
Real Estate Total	4.47	15.29	14.14	9.10	10.52	3.68	10.01	8.09	6.66	25.00	8.71	6.02	Apr-07
NCREIF-ODCE	1.31	3.77	5.59	7.30	9.34	8.35	7.62	8.76	15.02	12.48	13.94	5.91	Apr-07
Over/Under	3.16	11.52	8.55	1.80	1.18	-4.67	2.39	-0.67	-8.36	12.52	-5.23	0.11	
FTSE NAREIT All REIT	7.24	27.37	19.58	9.02	10.90	-4.10	9.27	9.28	2.29	27.15	3.21	5.99	Apr-07
US Real Estate Equity Rank	95	99	80	35	59	1	11	32	7	94	7	74	Apr-07
Special Opportunities	-12.13	-2.50	-13.83	-0.43	-1.75	-11.43	25.32	-21.90	2.13	25.88	31.60	4.97	Jul-12
Russell 3000	1.16	20.09	2.92	12.83	10.44	-5.24	21.13	12.73	0.48	12.56	33.55	13.47	Jul-12
Over/Under	-13.29	-22.59	-16.75	-13.26	-12.19	-6.19	4.19	-34.63	1.65	13.32	-1.95	-8.50	



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, Vanguard (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. Performance post these changes continues to be mediocre. RS Investments has performed poorly in the nearly three years since taking over their allocation of the portfolio. While Frontier and Wellington have demonstrated better results but over a limited time frame. We are increasingly concerned with the poor execution from RS, particularly in the most recent quarter-to-date cyclical rally.
- **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 performed well in the market rebound to start 2019 and the most recent quarter-to-date cyclical rally consistent with our expectations. 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. The Hys Group research team met with Post during the quarter and the transition is going smoothly.
- **Hotchkis & Wiley High Yield** – The Fund was placed on watch 2Q19 for performance in violation of policy parameters. There are two primary drivers of underperformance which have persisted for well over a year now. These include; 1) overweight to and underperformance of small/mid cap issues, 2) significant exposure to a continued selloff in the energy sector. The current portfolio has a 2% yield advantage over the index, yielding 7.1% vs. 5.0%. The road to recovery in Energy could be long and small caps could continue to be under pressure as everyone sits and waits for a recession. That said, in the face of no cyclical reversions H&W should be able to use their current yield advantage to slowly claw back relative performance. Conviction is key here, and we may need a longer time horizon to recoup our performance shortfall.

Spokane Employees' Retirement System

As of September 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	2.16	9.14	10.27	3.40	3.71	4.38	-0.35	4.33	3.75	0.54	5.99	-0.97	6.14	3.23	Aug-16
BBgBarc US Aggregate TR	<u>2.27</u>	<u>8.52</u>	<u>10.30</u>	<u>2.92</u>	<u>3.38</u>	<u>3.75</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>4.21</u>	<u>2.71</u>	Aug-16
Excess Return	-0.11	0.62	-0.03	0.48	0.33	0.63	-0.36	0.79	1.10	-0.01	0.02	1.05	1.93	0.52	
Intermediate Core Bond MStar MF Rank	63	25	38	11	10	15	53	34	40	29	35	35	66	12	Aug-16
Hotchkis & Wiley High Yield	-0.62	7.30	1.54	4.66	4.10	7.76	-3.43	8.24	16.02	-4.30	1.09	8.71	17.96	3.98	Jun-15
BBgBarc US High Yield TR	<u>1.33</u>	<u>11.41</u>	<u>6.36</u>	<u>6.07</u>	<u>5.37</u>	<u>7.94</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>15.81</u>	<u>5.49</u>	Jun-15
Excess Return	-1.95	-4.11	-4.82	-1.41	-1.27	-0.18	-1.35	0.74	-1.11	0.17	-1.36	1.27	2.15	-1.51	
High Yield Bond MStar MF Rank	97	88	96	85	69	16	73	17	20	61	65	20	11	78	Jun-15
Absolute Return															
Post Lmt'd Term High Yield	1.59	7.12	5.43	3.78	3.47	5.69	0.34	3.19	5.66	0.84	2.96	7.49	9.61	5.40	Jun-10
HFRI FOF: Conservative Index	<u>-0.08</u>	<u>4.57</u>	<u>1.18</u>	<u>3.13</u>	<u>2.04</u>	<u>2.73</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>4.22</u>	<u>2.81</u>	Jun-10
Excess Return	1.67	2.55	4.25	0.65	1.43	2.96	1.21	-0.93	3.77	0.47	-0.18	-0.21	5.39	2.59	
BBgBarc US Aggregate TR	2.27	8.52	10.30	2.92	3.38	3.75	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.45	Jun-10
Rimrock Low Volatility Offshore	-0.80	1.66	1.05	3.31	2.04	5.63	2.01	4.40	4.90	-1.90	2.31	7.82	11.33	4.60	Jun-10
HFRI FOF: Conservative Index	<u>-0.08</u>	<u>4.57</u>	<u>1.18</u>	<u>3.13</u>	<u>2.04</u>	<u>2.73</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>4.22</u>	<u>2.81</u>	Jun-10
Excess Return	-0.72	-2.91	-0.13	0.18	0.00	2.90	2.88	0.28	3.01	-2.27	-0.83	0.12	7.11	1.79	
BBgBarc US Aggregate TR	2.27	8.52	10.30	2.92	3.38	3.75	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.45	Jun-10
Castine Partners II **	-1.63	8.83	-3.97	6.62	6.87	4.31	-7.34	9.34	15.57	6.57	7.48	6.16	2.53	5.52	Jun-11
HFRI FOF: Conservative Index	<u>-0.08</u>	<u>4.57</u>	<u>1.18</u>	<u>3.13</u>	<u>2.04</u>	<u>2.73</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>4.22</u>	<u>2.53</u>	Jun-11
Excess Return	-1.55	4.26	-5.15	3.49	4.83	1.58	-6.47	5.22	13.68	6.20	4.34	-1.54	-1.69	2.99	
BBgBarc US Aggregate TR	2.27	8.52	10.30	2.92	3.38	3.75	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.40	Jun-11
Polar Long Short Fund	-2.00	5.64	3.66	3.24	4.01	3.62	0.24	4.20	6.60	1.73	3.46	5.60	4.42	4.31	Sep-11
HFRI FOF: Conservative Index	<u>-0.08</u>	<u>4.57</u>	<u>1.18</u>	<u>3.13</u>	<u>2.04</u>	<u>2.73</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>4.22</u>	<u>3.12</u>	Sep-11
Excess Return	-1.92	1.07	2.48	0.11	1.97	0.89	1.11	0.08	4.71	1.36	0.32	-2.10	0.20	1.19	
BBgBarc US Aggregate TR	2.27	8.52	10.30	2.92	3.38	3.75	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	3.02	Sep-11

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

Spokane Employees' Retirement System

As of September 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	-0.79	18.52	-3.46	9.66	6.64	10.95	-14.74	18.39	19.94	-7.90	12.74	36.54	19.78	10.25	Sep-08
Russell 1000 Value	<u>1.36</u>	<u>17.81</u>	<u>4.00</u>	<u>9.43</u>	<u>7.79</u>	<u>11.46</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>9.25</u>	Sep-08
Excess Return	-2.15	0.71	-7.46	0.23	-1.15	-0.51	-6.47	4.73	2.60	-4.07	-0.71	4.01	2.27	1.00	
S&P 500	1.70	20.55	4.25	13.39	10.84	13.24	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	11.24	Sep-08
Large Value MStar MF Rank	97	28	94	53	74	54	97	23	9	90	20	14	8	22	Sep-08
Fidelity S&P 500 Inst	1.69	20.55	4.24	13.38	10.83	13.23	-4.40	21.81	11.97	1.38	13.66	32.35	15.98	20.55	Jan-19
S&P 500	<u>1.70</u>	<u>20.55</u>	<u>4.25</u>	<u>13.39</u>	<u>10.84</u>	<u>13.24</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>20.55</u>	Jan-19
Excess Return	-0.01	0.00	-0.01	-0.01	-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	42	32	33	21	15	13	22	32	27	24	21	45	41	32	Jan-19
MFS Large Cap Growth R6	1.15	26.96	7.56	18.83	14.61	15.95	2.68	30.99	2.55	7.49	8.88	34.81	16.51	-1.12	Sep-19
Russell 1000 Growth	<u>1.49</u>	<u>23.30</u>	<u>3.71</u>	<u>16.89</u>	<u>13.39</u>	<u>14.94</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>0.01</u>	Sep-19
Excess Return	-0.34	3.66	3.85	1.94	1.22	1.01	4.19	0.78	-4.53	1.82	-4.17	1.33	1.25	-1.13	
S&P 500	1.70	20.55	4.25	13.39	10.84	13.24	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	1.87	Sep-19
Large Growth MStar MF Rank	27	7	13	8	7	4	13	30	54	21	68	43	38	72	Sep-19
Small/Mid Cap Equity															
Sterling Mid Cap Value	1.00	20.73	-2.12	6.73	6.64	10.64	-17.67	14.27	16.97	-1.71	5.85	46.25	12.50	10.08	Sep-08
Russell MidCap Value	<u>1.22</u>	<u>19.47</u>	<u>1.60</u>	<u>7.82</u>	<u>7.55</u>	<u>12.29</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>10.37</u>	Sep-08
Excess Return	-0.22	1.26	-3.72	-1.09	-0.91	-1.65	-5.38	0.93	-3.03	3.07	-8.90	12.79	-6.01	-0.29	
Russell MidCap	0.48	21.93	3.19	10.69	9.10	13.07	-9.06	18.52	13.80	-2.44	13.22	34.76	17.28	11.45	Sep-08
Mid-Cap Value MStar MF Rank	48	27	58	63	52	66	85	37	69	19	87	2	85	43	Sep-08
Fidelity Mid Cap Index	0.44	21.90	3.23	10.67	9.09	13.01	-9.05	18.47	13.86	-2.44	13.11	35.17	16.01	21.90	Jan-19
Russell MidCap	<u>0.48</u>	<u>21.93</u>	<u>3.19</u>	<u>10.69</u>	<u>9.10</u>	<u>13.07</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>21.93</u>	Jan-19
Excess Return	-0.04	-0.03	0.04	-0.02	-0.01	-0.06	0.01	-0.05	0.06	0.00	-0.11	0.41	-1.27	-0.03	
Mid-Cap Blend MStar MF Rank	43	19	19	21	11	5	24	22	61	37	8	47	62	19	Jan-19

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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	-2.98	23.87	1.60	13.75	9.66	12.83	-3.29	22.01	0.44	0.21	10.86	34.15	14.84	9.43	Jun-14
Russell MidCap Growth	<u>-0.67</u>	<u>25.23</u>	<u>5.20</u>	<u>14.50</u>	<u>11.12</u>	<u>14.08</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>10.87</u>	Jun-14
Excess Return	-2.31	-1.36	-3.60	-0.75	-1.46	-1.25	1.46	-3.26	-6.89	0.41	-1.04	-1.59	-0.97	-1.44	
Mid-Cap Growth MStar MF Rank	74	47	62	53	65	59	29	72	93	41	21	61	47	64	Jun-14
Frontier Phocas Small Cap Value I	-0.75	15.52	-8.31	5.05	5.50	10.25	-17.52	8.17	23.31	-4.35	7.19	45.63	9.75	9.83	Dec-11
Russell 2000 Value	<u>-0.57</u>	<u>12.82</u>	<u>-8.24</u>	<u>6.54</u>	<u>7.17</u>	<u>10.06</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>10.41</u>	Dec-11
Excess Return	-0.18	2.70	-0.07	-1.49	-1.67	0.19	-4.66	0.33	-8.43	3.12	2.97	11.11	-8.30	-0.58	
Russell 2000	-2.40	14.18	-8.89	8.23	8.19	11.19	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	11.24	Dec-11
Small Value MStar MF Rank	48	28	45	65	52	41	78	60	71	36	23	3	95	46	Dec-11
Fidelity Small Cap Index	-2.34	14.27	-8.79	8.39	8.39	11.72	-10.88	14.85	21.63	-4.24	5.19	37.80	18.26	14.27	Jan-19
Russell 2000	<u>-2.40</u>	<u>14.18</u>	<u>-8.89</u>	<u>8.23</u>	<u>8.19</u>	<u>11.19</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>14.18</u>	Jan-19
Excess Return	0.06	0.09	0.10	0.16	0.20	0.53	0.13	0.20	0.32	0.17	0.30	-1.02	1.91	0.09	
Small Blend MStar MF Rank	72	57	60	39	34	30	33	25	41	49	47	56	22	57	Jan-19
Champlain Small Cap	-1.26	17.70	-5.46	11.49	12.13	13.07	-3.03	10.90	27.93	-0.65	4.43	36.61	11.06	10.94	Sep-08
Russell 2000	<u>-2.40</u>	<u>14.18</u>	<u>-8.89</u>	<u>8.23</u>	<u>8.19</u>	<u>11.19</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>9.13</u>	Sep-08
Excess Return	1.14	3.52	3.43	3.26	3.94	1.88	7.98	-3.75	6.62	3.76	-0.46	-2.21	-5.29	1.81	
Russell 2000 Growth	-4.17	15.34	-9.63	9.79	9.08	12.25	-9.31	22.17	11.32	-1.38	5.60	43.30	14.59	10.42	Sep-08
Small Blend MStar MF Rank	50	23	33	4	1	4	1	65	8	11	60	68	88	7	Sep-08
Bridge City Small Growth	1.12	17.69	-0.27	14.27	14.37	15.44	0.97	15.93	17.96	6.81	7.06	40.81	10.99	14.75	Dec-11
Russell 2000 Growth	<u>-4.17</u>	<u>15.34</u>	<u>-9.63</u>	<u>9.79</u>	<u>9.08</u>	<u>12.25</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>12.15</u>	Dec-11
Excess Return	5.29	2.35	9.36	4.48	5.29	3.19	10.28	-6.24	6.64	8.19	1.46	-2.49	-3.60	2.60	
Russell 2000	-2.40	14.18	-8.89	8.23	8.19	11.19	-11.01	14.65	21.31	-4.41	4.89	38.82	16.35	11.27	Dec-11
Small Growth MStar MF Rank	5	51	16	31	6	3	15	77	20	4	15	61	79	10	Dec-11

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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	-0.63	13.73	0.63	5.99	4.45	8.53	-15.42	24.06	5.74	-1.49	-0.39	30.72	22.48	8.58	Sep-08
MSCI ACWI ex USA Value	-2.80	6.94	-4.51	5.24	0.89	3.05	-13.97	22.66	8.92	-10.06	-5.10	15.04	16.97	3.64	Sep-08
Excess Return	2.17	6.79	5.14	0.75	3.56	5.48	-1.45	1.40	-3.18	8.57	4.71	15.68	5.51	4.94	
MSCI ACWI ex USA	-1.80	11.56	-1.23	6.33	2.90	4.45	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	4.58	Sep-08
Foreign Large Value MStar MF Rank	23	1	5	10	3	1	23	41	29	45	2	1	8	1	Sep-08
EuroPacific Growth R6	-1.59	15.72	1.14	7.38	5.02	6.07	-14.91	31.17	1.01	-0.48	-2.29	20.58	19.64	4.30	Jun-08
MSCI ACWI ex USA	-1.80	11.56	-1.23	6.33	2.90	4.45	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	2.21	Jun-08
Excess Return	0.21	4.16	2.37	1.05	2.12	1.62	-0.71	3.98	-3.49	5.18	1.58	5.29	2.81	2.09	
Foreign Large Blend MStar MF Rank	60	10	10	8	5	11	47	6	53	42	18	50	28	14	Jun-08
Victory Trivalent International Small Cap	0.38	16.43	-5.63	6.92	6.12	9.96	-20.21	37.13	-0.70	8.20	-0.20	32.98	24.32	6.28	Aug-15
MSCI ACWI xUS Small (net)	-1.19	10.28	-5.63	4.64	3.98	6.13	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	5.86	Aug-15
Excess Return	1.57	6.15	0.00	2.28	2.14	3.83	-2.01	5.48	-4.61	5.60	3.83	13.25	5.80	0.42	
MSCI ACWI ex USA	-1.80	11.56	-1.23	6.33	2.90	4.45	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	5.67	Aug-15
Foreign Small/Mid Growth MStar MF Rank	4	19	48	37	43	25	61	43	36	60	26	24	22	46	Aug-15
Vanguard Emerging Markets Stock Index Fund	-3.60	8.07	1.27	5.26	2.01	3.86	-14.58	31.38	11.73	-15.35	0.60	6.16	10.77	-3.07	Jul-18
MSCI Emerging Markets	-4.25	5.90	-2.02	5.97	2.33	3.37	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.22	-4.45	Jul-18
Excess Return	0.65	2.17	3.29	-0.71	-0.32	0.49	0.00	-5.90	0.54	-0.43	2.79	8.76	-7.45	1.38	
Foreign Small/Mid Growth MStar MF Rank	79	99	9	62	95	99	25	96	1	99	12	99	99	29	Jul-18
ABS Emerging Markets Strategic Portfolio LP	-2.96	8.94	2.51	--	--	--	-14.99	--	--	--	--	--	--	2.51	Sep-18
MSCI Emerging Markets	-4.25	5.90	-2.02	5.97	2.33	3.37	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.22	-2.02	Sep-18
Excess Return	1.29	3.04	4.53	--	--	--	-0.41	--	--	--	--	--	--	4.53	
Diversified Emerging Mkts MStar MF Rank	39	49	36	--	--	--	33	--	--	--	--	--	--	36	Sep-18

Spokane Employees' Retirement System

As of September 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	-0.71	8.61	-0.20	3.90	2.86	4.63	-3.10	5.67	0.99	1.49	4.91	13.56	8.47	3.52	Mar-08
HFRI Fund of Funds Composite Index	-0.82	5.29	0.08	3.18	1.96	2.68	-4.02	7.77	0.51	-0.27	3.36	8.96	4.79	1.41	Mar-08
Excess Return	0.11	3.32	-0.28	0.72	0.90	1.95	0.92	-2.10	0.48	1.76	1.55	4.60	3.68	2.11	
S&P 500	1.70	20.55	4.25	13.39	10.84	13.24	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	9.62	Mar-08
Opportunistic Credit															
Beach Point Select Fund	1.21	8.19	4.36	6.25	6.00	--	0.28	7.08	14.52	2.58	2.35	15.93	17.58	6.47	Oct-13
HFRI ED: Distressed/Restructuring Index	-1.71	3.03	-2.83	4.35	1.84	5.08	-1.70	6.25	15.15	-8.06	-1.39	14.05	10.12	2.68	Oct-13
Excess Return	2.92	5.16	7.19	1.90	4.16		1.98	0.83	-0.63	10.64	3.74	1.88	7.46	3.79	
HFRX Distressed Securities Index	0.30	3.90	-0.40	0.74	0.08	1.29	-9.50	3.14	19.72	-11.14	0.42	5.37	0.94	0.70	Oct-13
Contrarian Capital Fund I, LP	-9.00	-8.89	-22.37	-3.32	-1.29	5.42	-12.43	4.77	25.46	-7.89	0.45	17.00	24.54	-22.37	Sep-18
HFRI ED: Distressed/Restructuring Index	-1.71	3.03	-2.83	4.35	1.84	5.08	-1.70	6.25	15.15	-8.06	-1.39	14.05	10.12	-2.83	Sep-18
Excess Return	-7.29	-11.92	-19.54	-7.67	-3.13	0.34	-10.73	-1.48	10.31	0.17	1.84	2.95	14.42	-19.54	
HFRX Distressed Securities Index	0.30	3.90	-0.40	0.74	0.08	1.29	-9.50	3.14	19.72	-11.14	0.42	5.37	0.94	-0.40	Sep-18
Real Estate															
SERS Principal Global Investors REIT	7.83	30.54	22.05	9.63	11.97	13.97	-4.13	9.16	6.67	4.45	32.55	4.17	17.28	7.16	Dec-06
FTSE NAREIT All REIT	7.24	27.37	19.58	9.02	10.90	13.30	-4.10	9.27	9.28	2.29	27.15	3.21	20.14	6.04	Dec-06
Excess Return	0.59	3.17	2.47	0.61	1.07	0.67	-0.03	-0.11	-2.61	2.16	5.40	0.96	-2.86	1.12	
US Real Estate Equity Rank	33	22	20	22	16	33	37	24	60	49	30	21	76	35	Dec-06
Prime Property LLC	1.40	4.57	6.66	7.92	9.87	11.53	8.03	8.67	9.31	14.53	14.08	16.17	11.68	7.40	Oct-17
NCREIF - ODCE NET	1.08	3.08	4.65	6.34	8.35	9.83	7.36	6.66	7.79	13.91	11.46	12.90	9.79	6.17	Oct-17
Excess Return	0.32	1.49	2.01	1.58	1.52	1.70	0.67	2.01	1.52	0.62	2.62	3.27	1.89	1.23	
US Real Estate Equity Rank	99	99	99	53	75	93	1	25	20	1	99	1	99	95	Oct-17

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
Special Opportunities															
OrbiMed Partners II	-8.88	17.36	-4.41	3.04	0.29	8.87	-18.43	25.30	-21.91	2.14	25.88	32.19	16.19	8.26	Dec-10
MSCI World Healthcare Index	-1.25	8.40	-1.83	8.01	6.38	11.65	2.51	19.80	-6.81	6.60	18.10	36.27	17.54	12.20	Dec-10
Excess Return	-7.63	8.96	-2.58	-4.97	-6.09	-2.78	-20.94	5.50	-15.10	-4.46	7.78	-4.08	-1.35	-3.94	
NASDAQ Biotech Index	-8.62	3.21	-17.99	1.61	2.26	14.44	-8.86	21.63	-21.35	11.77	34.40	65.97	32.29	14.72	Dec-10
S&P Composite 1500 Health Care	-2.37	5.83	-4.33	9.99	9.43	14.62	6.71	22.47	-2.05	7.41	24.79	42.19	18.35	15.08	Dec-10
Contrarian Emerging Markets Fund LP	-14.25	-10.42	-10.42	6.29	7.62	11.61	0.96	20.36	22.72	14.48	-1.97	14.56	23.32	-10.42	Sep-18
HFRI Emerging Markets: Global Index	-1.61	4.72	1.46	3.19	1.76	2.68	-6.83	12.50	7.33	-3.47	-2.41	3.67	8.62	1.46	Sep-18
Excess Return	-12.64	-15.14	-11.88	3.10	5.86	8.93	7.79	7.86	15.39	17.95	0.44	10.89	14.70	-11.88	
MSCI Emerging Markets	-4.25	5.90	-2.02	5.97	2.33	3.37	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.22	-2.02	Sep-18

Non-Marketable Securities Overview
As of September 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	Metropolitan Real Estate Partners V	2007	\$2,000,000	\$1,885,000	\$2,066,019	\$163,374	\$2,229,394	\$115,000	94.25%	3.18

Time and Dollar Weighted Returns

Metropolitan Real Estate Partners V	Q3-19	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
Time Weighted	-3.99%	-11.50%	-12.44%	-9.81%	-8.60%	-1.04%	3.49%	4.12%
Money Weighted	-3.99%	-11.35%	-12.17%	-9.45%	-7.56%	8.54%	12.91%	10.75%
NCREIF Property Index	1.41%	4.79%	6.23%	6.70%	6.76%	8.57%	9.29%	9.77%

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%	-5.75%
Money Weighted	-7.64%	-7.45%	3.86%	11.04%	19.67%	13.59%	3.18%
NCREIF Property Index	6.71%	6.98%	7.97%	13.33%	11.81%	10.99%	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 September 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	\$6,110,670	\$2,268,661	\$8,379,331	\$119,507	98.03%	11.87

Time and Dollar Weighted Returns

Morrison Street Fund V, LP	Q3-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Time Weighted	3.70%	5.59%	10.48%	9.68%	11.99%	11.65%	11.54%
Money Weighted	3.70%	4.78%	10.79%	9.90%	12.79%	12.19%	12.51%
NCREIF Property Index	1.41%	4.79%	6.23%	6.70%	6.76%	7.37%	8.57%

Morrison Street Fund V, LP	2018	2017	2016	2015	Inception 6/30/14
Time Weighted	10.12%	18.03%	11.10%	11.89%	10.75%
Money Weighted	9.97%	17.74%	11.31%	13.31%	11.87%
NCREIF Property Index	6.71%	6.98%	7.97%	13.33%	8.68%

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 September 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	\$4,416,364	\$1,126,824	\$4,086,347	\$5,213,171	\$583,636	88.33%	7.73

Time and Dollar Weighted Returns

Morrison Street Debt Opportunities Fd LP	Q3-19	YTD	1 Yr	2 Yrs	3 Yrs
Time Weighted	1.51%	5.63%	8.23%	8.87%	
Money Weighted	1.51%	5.65%	8.27%	8.91%	
NCREIF - ODCE NET	1.08%	3.08%	4.65%	6.17%	6.34%

Morrison Street Debt Opportunities Fd LP	2018	2017	2016	2015	Inception 12/31/16
Time Weighted	9.94%	4.47%			7.28%
Money Weighted	9.92%	5.28%			7.73%
NCREIF - ODCE NET	7.36%	6.66%	7.79%	13.91%	6.22%

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 September 30, 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	\$3,881,049	\$2,313,986	\$6,195,035	\$0	100.00%	5.76

Time and Dollar Weighted Returns

Orbimed Royalty Opportunities	Q3-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs	7 Yrs
Time Weighted	-3.10%	3.95%	-1.91%	12.21%	-0.53%	1.78%	3.37%	5.07%
Money Weighted	-3.10%	4.04%	-1.89%	14.66%	-1.05%	2.10%	4.13%	5.41%
HFRI Fund of Funds Composite Index	-0.82%	5.29%	0.08%	1.56%	3.18%	2.47%	1.96%	3.19%
S&P 500	1.70%	20.55%	4.25%	10.87%	13.39%	13.90%	10.84%	13.26%

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%	6.65%
Money Weighted	25.50%	4.57%	-17.15%	9.99%	10.00%	6.90%	5.76%
HFRI Fund of Funds Composite Index	-4.02%	7.77%	0.51%	-0.27%	3.36%	8.96%	2.76%
S&P 500	-4.38%	21.83%	11.96%	1.38%	13.69%	32.39%	14.05%

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 September 30, 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	\$2,718,167	\$2,601,037	\$5,319,204	\$832,500	83.35%	14.32

Time and Dollar Weighted Returns

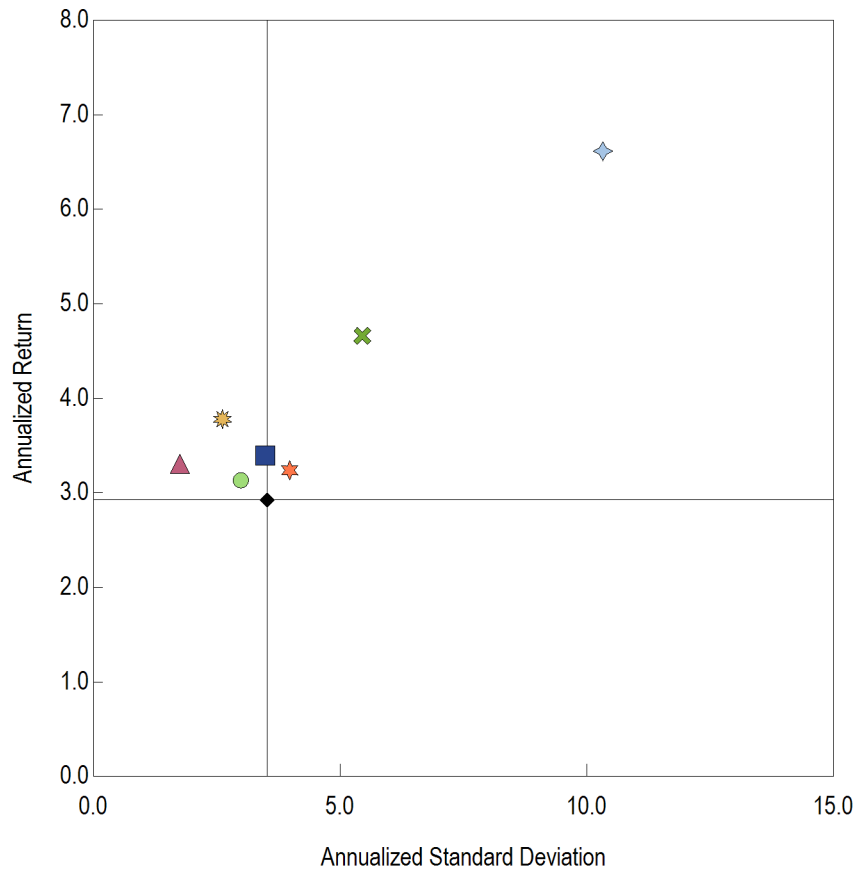
	Q3-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs
Orbimed Royalty Opportunities II						
Time Weighted	3.86%	16.04%	21.32%	17.73%	14.63%	15.89%
Money Weighted	3.79%	16.75%	21.80%	17.56%	15.42%	14.84%
HFRI Fund of Funds Composite Index	-0.82%	5.29%	0.08%	1.56%	3.18%	2.47%
S&P 500	1.70%	20.55%	4.25%	10.87%	13.39%	13.90%

	2018	2017	2016	2015	Inception 4/1/15
Orbimed Royalty Opportunities II					
Time Weighted	15.59%	12.28%	0.60%		13.46%
Money Weighted	15.15%	12.85%	-0.05%		14.32%
HFRI Fund of Funds Composite Index	-4.02%	7.77%	0.51%	-0.27%	1.41%
S&P 500	-4.38%	21.83%	11.96%	1.38%	10.68%

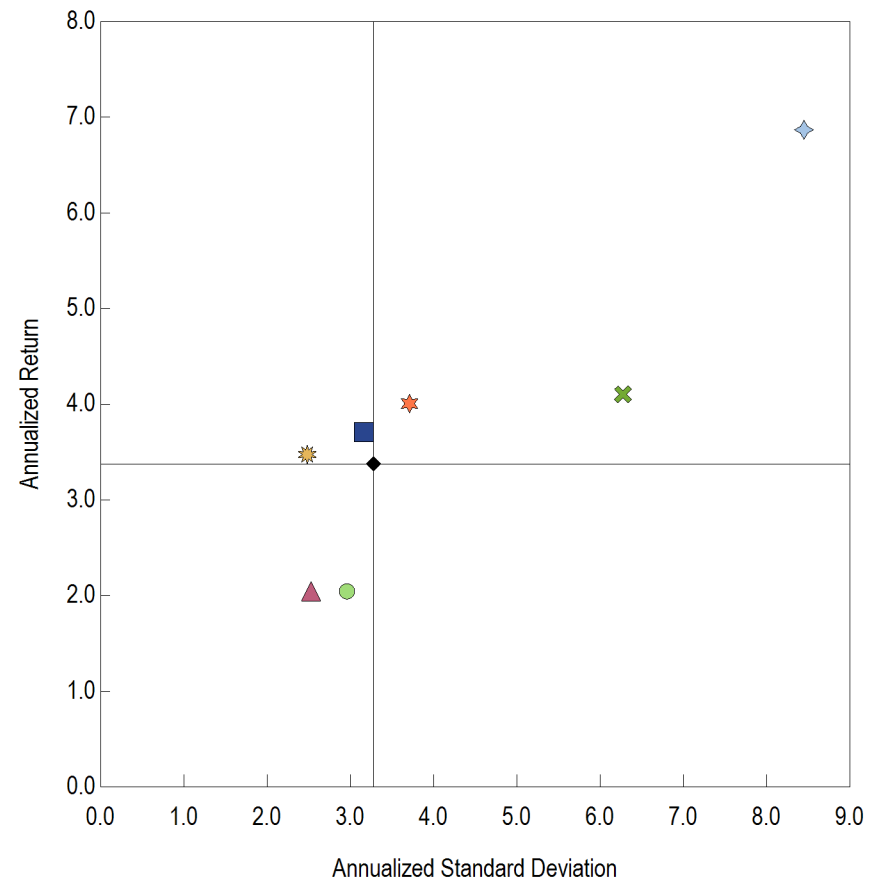
Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for 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 September 30, 2019



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

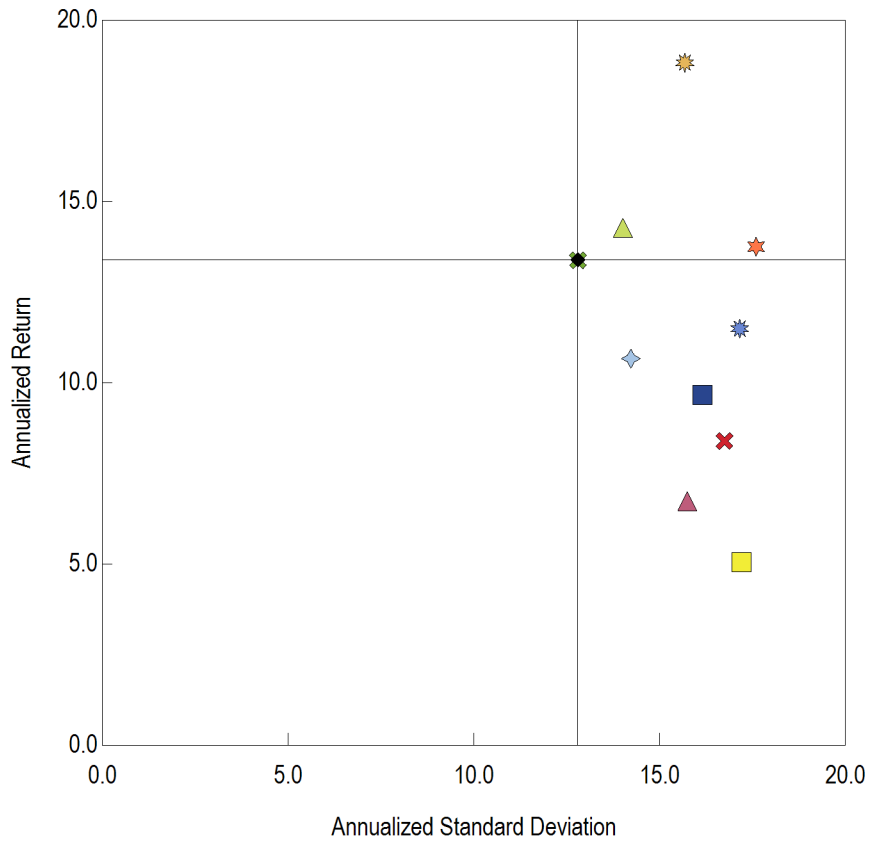


- Sterling Core Bond
- ✕ Hotchkis & Wiley High Yield
- ⚡ Post Lmtd Term High Yield
- ▲ Rimrock Low Volatility Offshore
- ◆ Castine Partners II **
- ★ Polar Long Short Fund
- ◆ BBgBarc US Aggregate TR
- HFRI FOF: Conservative Index

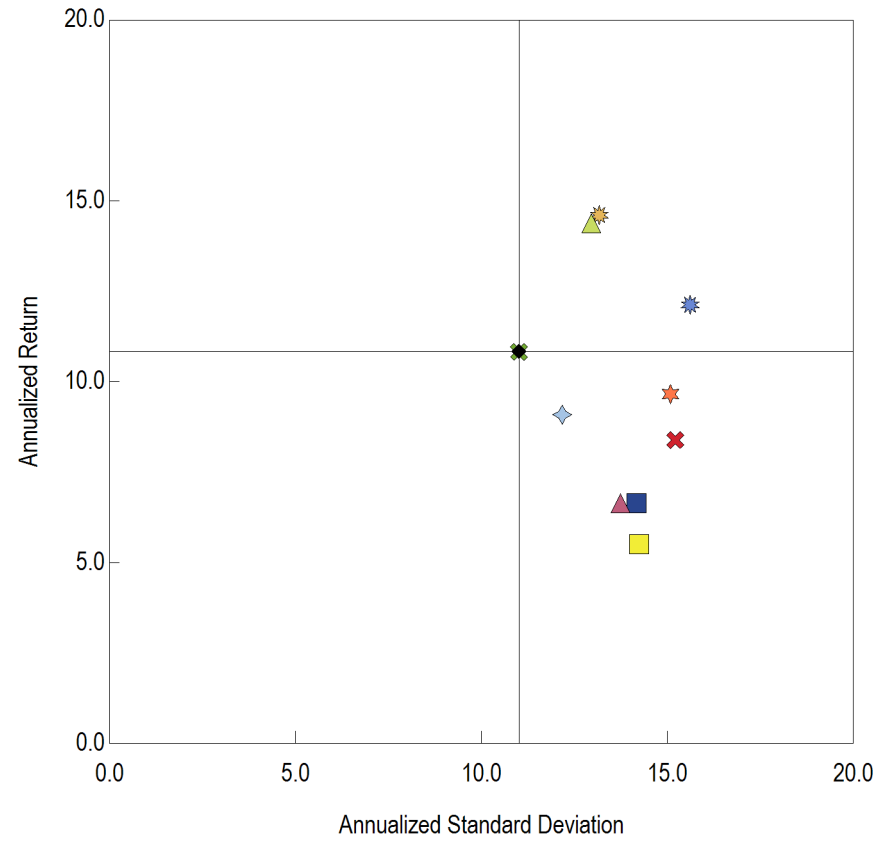
- Sterling Core Bond
- ✕ Hotchkis & Wiley High Yield
- ⚡ Post Lmtd Term High Yield
- ▲ Rimrock Low Volatility Offshore
- ◆ Castine Partners II **
- ★ Polar Long Short Fund
- ◆ BBgBarc US Aggregate TR
- HFRI FOF: Conservative Index

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

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



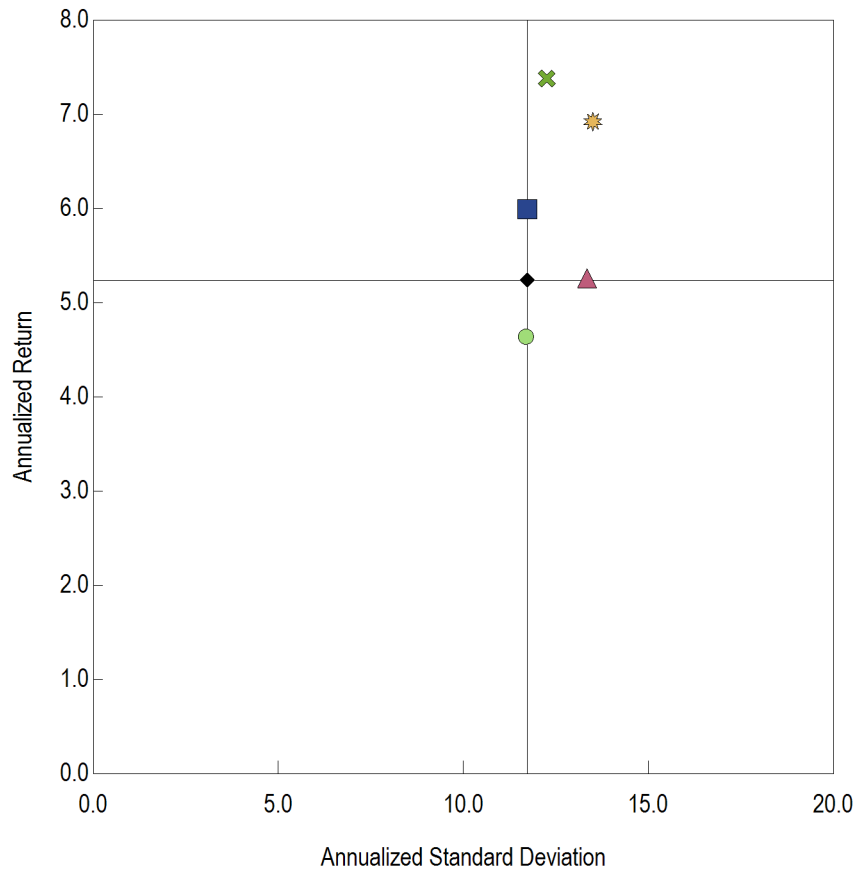
Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2019



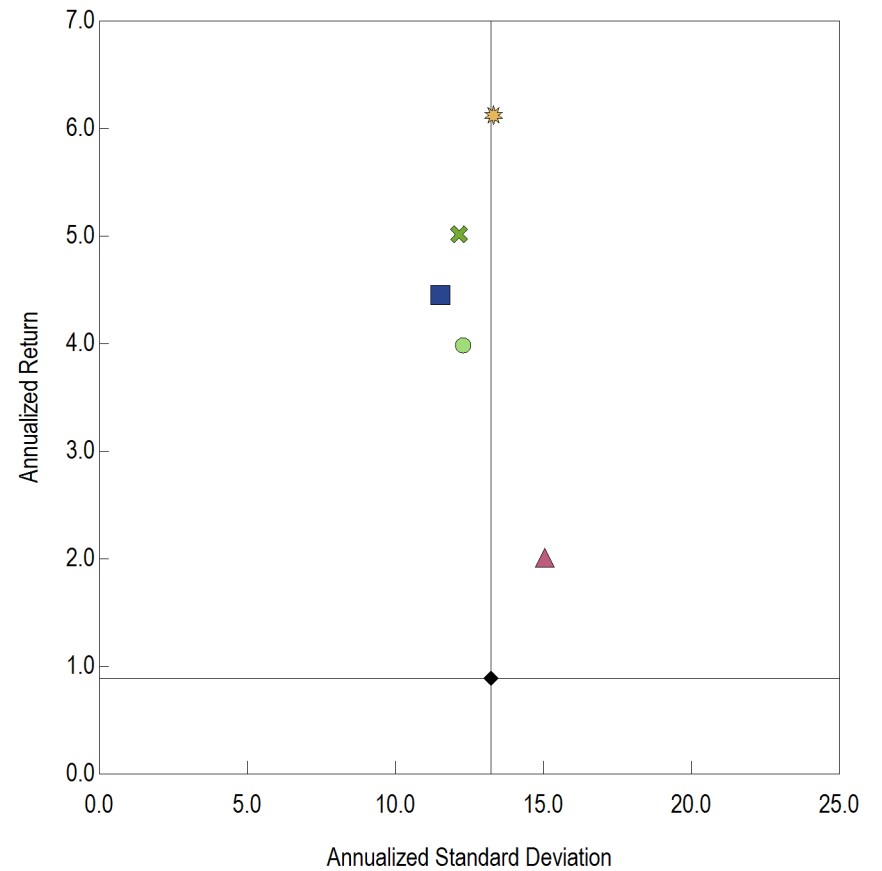
- Hotchkis & Wiley Diversified Value I
- ✕ Fidelity S&P 500 Inst
- ☀ MFS Large Cap Growth R6
- ▲ Sterling Mid Cap Value
- ◆ Fidelity Mid Cap Index
- ★ Vanguard Mid Cap Growth
- Frontier Phocas Small Cap Value I
- ✕ Fidelity Small Cap Index
- ✱ Champlain Small Cap
- ▲ Bridge City Small Growth
- ◆ S&P 500

- Hotchkis & Wiley Diversified Value I
- ✕ Fidelity S&P 500 Inst
- ☀ MFS Large Cap Growth R6
- ▲ Sterling Mid Cap Value
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- ✕ Fidelity Small Cap Index
- ✱ Champlain Small Cap
- ▲ Bridge City Small Growth
- ◆ S&P 500

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



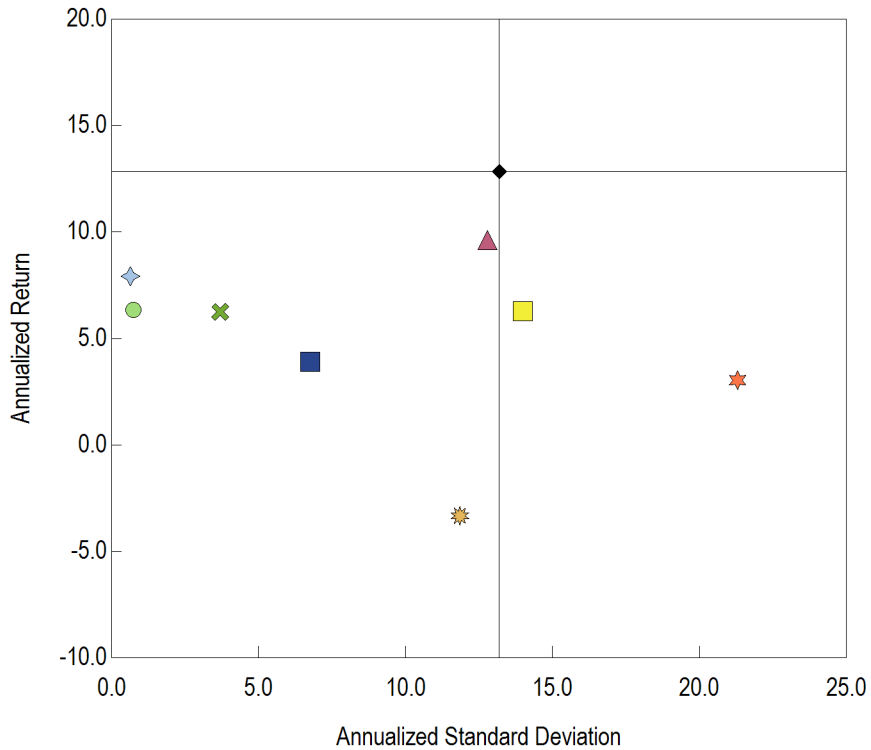
Annualized Return vs. Annualized Standard Deviation
5 Years Ending September 30, 2019



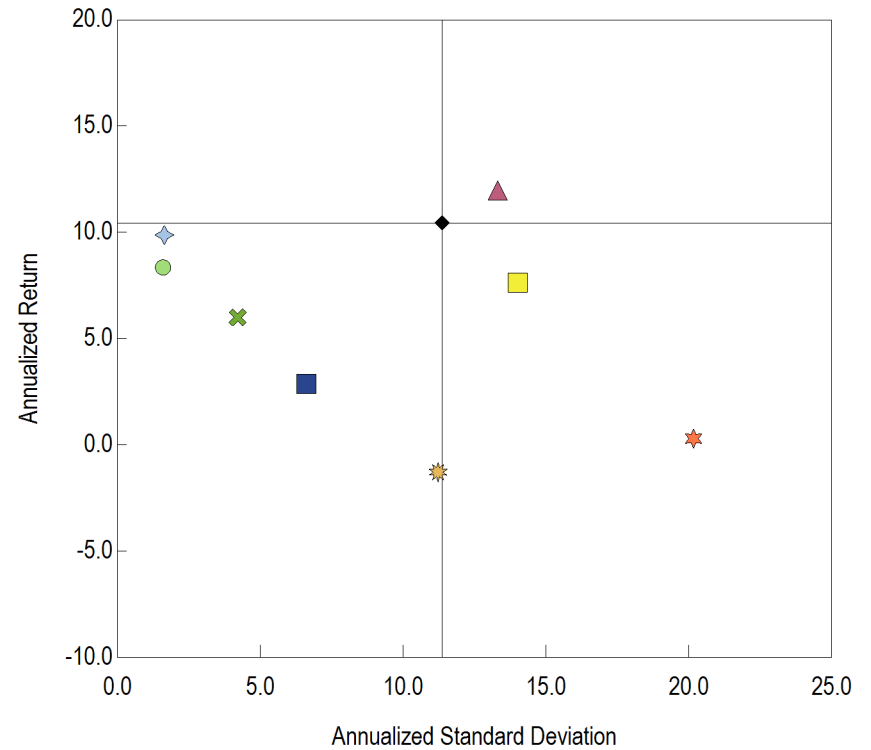
- Artisan International Value
- ✕ EuroPacific Growth R6
- ★ Victory Trivalent International Small Cap
- ▲ Vanguard Emerging Markets Stock Index Fund
- ◆ MSCI ACWI ex USA Value
- MSCI ACWI xUS Small (net)

- Artisan International Value
- ✕ EuroPacific Growth R6
- ★ Victory Trivalent International Small Cap
- ▲ Vanguard Emerging Markets Stock Index Fund
- ◆ MSCI ACWI ex USA Value
- MSCI ACWI xUS Small (net)

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



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

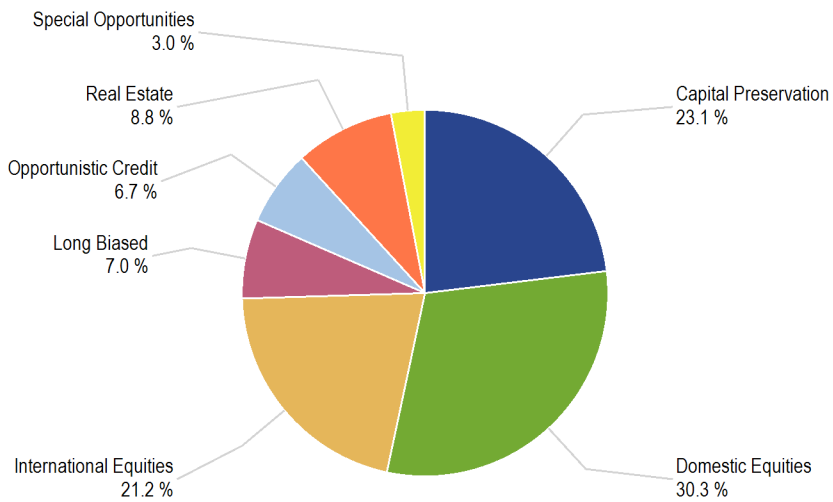
Investment Expense Analysis

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	\$21,601,074	10.8%	1.01%	0.95%	0.07%
Bridge City Small Growth	Separate Account		Russell 2000 Growth	Small Growth MStar MF	\$5,749,237	2.9%	0.35%	0.99%	-0.64%
Champlain Small Cap	Commingled Fund		Russell 2000 Growth	Small Growth MStar MF	\$6,467,335	3.2%	1.00%	0.99%	0.01%
EuroPacific Growth R6	Mutual Fund	RERGX	MSCI ACWI ex USA	Foreign MStar MF	\$21,490,207	10.8%	0.49%	0.90%	-0.41%
Fidelity Instl Govt Money Market	Mutual Fund	FIGXX	91 Day T-Bills	Money Market - Taxable MStar MF	\$128,450	0.1%	0.18%	0.21%	-0.03%
Fidelity Mid Cap Index	Mutual Fund	FSMDX	Russell MidCap	Mid Cap MStar MF	\$4,310,263	2.2%	0.03%	0.89%	-0.86%
Fidelity S&P 500	Mutual Fund	FXAIX	S&P 500	Large Cap MStar MF	\$28,710,261	14.4%	0.02%	0.73%	-0.72%
Fidelity Small Cap Index	Mutual Fund	FSSNX	Russell 2000	Small Cap MStar MF	\$877,602	0.4%	0.03%	0.98%	-0.96%
Frontier Sm Cap Value I	Mutual Fund	FPSVX	Russell 2000 Value	Small Value MStar MF	\$3,842,293	1.9%	0.95%	0.99%	-0.04%
Hotchkis & Wiley Div Value I	Mutual Fund	HWCIX	Russell 1000 Value	Large Value MStar MF	\$16,113,167	8.1%	0.80%	0.72%	0.09%
Hotchkis & Wiley High Yield	Mutual Fund	HWHZX	BBgBarc US High Yield TR	High Yield Bond MStar MF	\$13,377,263	6.7%	0.60%	0.73%	-0.13%
MFS Growth Fund CI R6	Mutual Fund	MFEKX	Russell 1000 Growth	Large Growth MStar MF	\$17,060,763	8.5%	0.58%	0.79%	-0.21%
Principal Global Investors REIT	Separate Account		FTSE NAREIT All REIT	Real Estate MStar MF	\$12,609,210	6.3%	0.75%	0.91%	-0.16%
Sterling Core Bond	Separate Account		BBgBarc US Aggregate TR	Intermediate Core Bond MStar MF	\$25,318,563	12.7%	0.25%	0.45%	-0.20%
Sterling Mid Cap Value	Separate Account		Russell MidCap Value	Mid-Cap Value MStar MF	\$4,640,568	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	\$1,151,533	0.6%	0.14%	1.15%	-1.01%
Vanguard Mid Cap Growth	Mutual Fund	VMGRX	Russell MidCap Growth	Mid-Cap Growth MStar MF	\$4,318,790	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	\$11,843,656	5.9%	0.99%	1.08%	-0.09%
Total					\$199,610,234	100.0%	0.54%		

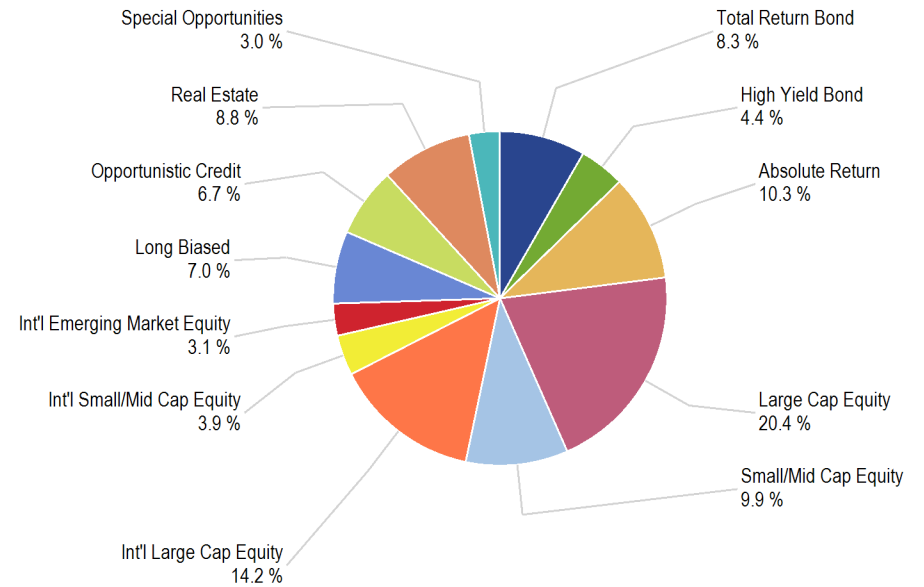
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Section 3

Current Allocation



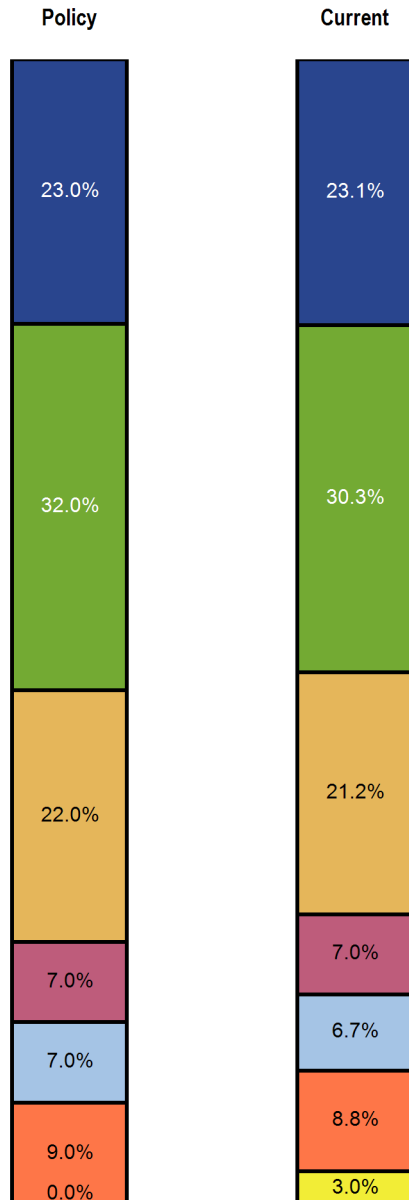
Current Implementation Allocation



Spokane Employees' Retirement System

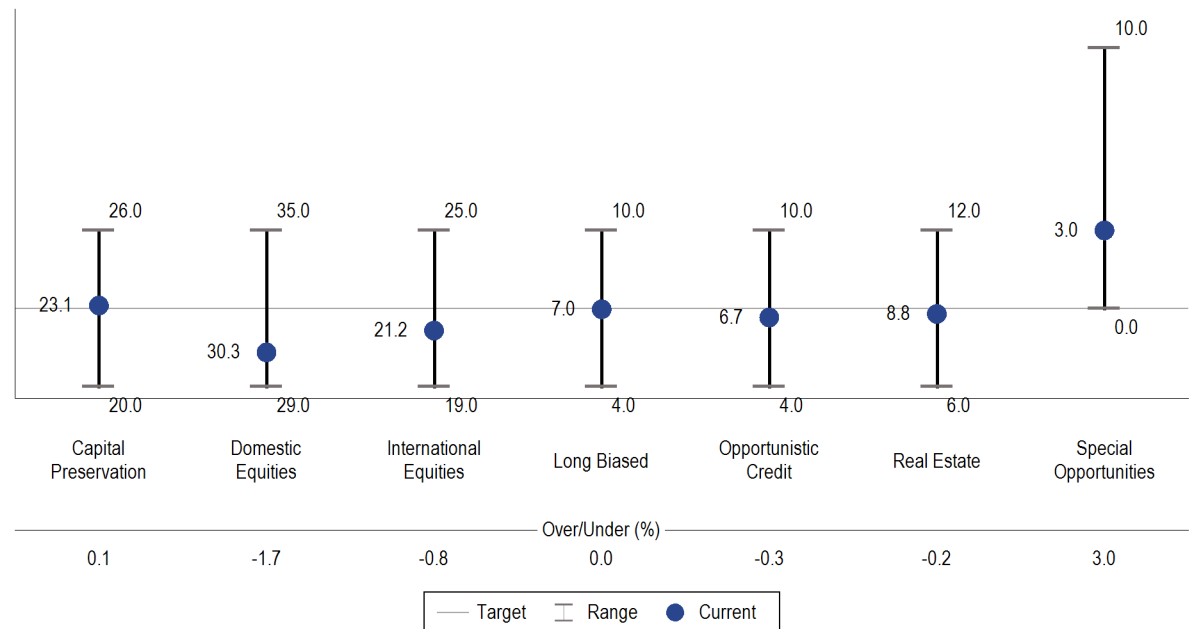
As of September 30, 2019

Asset Allocation vs. Target



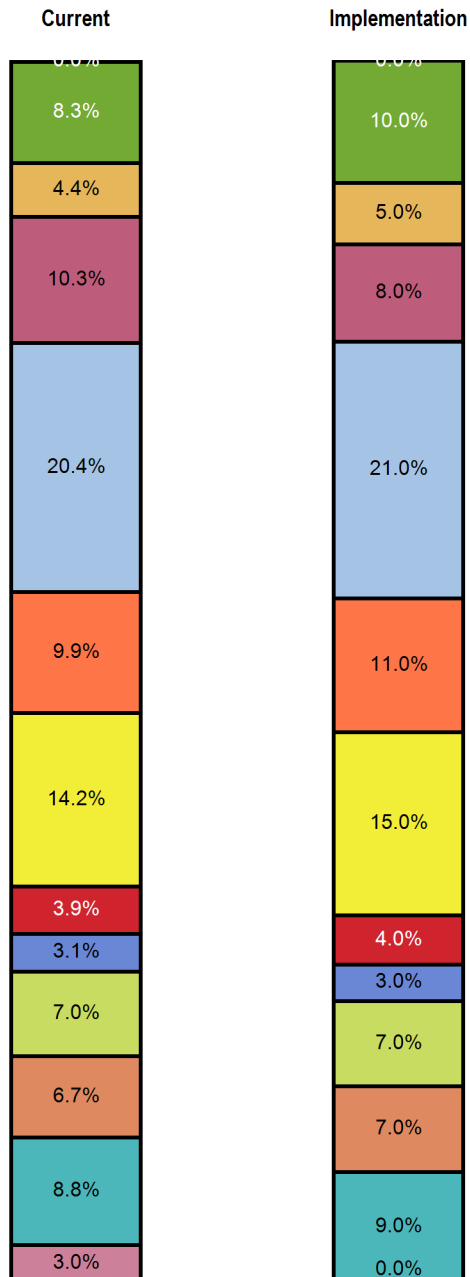
	Inv Pol Stmt	%	Inv Pol Stmt Range	Current	%	Difference	%
Capital Preservation	\$69,873,815	23.0%	20.0% - 26.0%	\$70,220,951	23.1%	\$347,136	0.1%
Domestic Equities	\$97,215,743	32.0%	29.0% - 35.0%	\$92,090,278	30.3%	-\$5,125,465	-1.7%
International Equities	\$66,835,824	22.0%	19.0% - 25.0%	\$64,260,956	21.2%	-\$2,574,867	-0.8%
Long Biased	\$21,265,944	7.0%	4.0% - 10.0%	\$21,178,764	7.0%	-\$87,180	0.0%
Opportunistic Credit	\$21,265,944	7.0%	4.0% - 10.0%	\$20,220,169	6.7%	-\$1,045,775	-0.3%
Real Estate	\$27,341,928	9.0%	6.0% - 12.0%	\$26,706,408	8.8%	-\$635,520	-0.2%
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$9,121,671	3.0%	\$9,121,671	3.0%
Total	\$303,799,198	100.0%		\$303,799,198	100.0%		

Actual vs. Target



Spokane Employees' Retirement System

As of September 30, 2019



Asset Allocation on September 30, 2019

	Actual	Actual	Target
Cash	\$128,450	0.0%	0.0%
Total Return Bond	\$25,318,563	8.3%	10.0%
High Yield Bond	\$13,377,263	4.4%	5.0%
Absolute Return	\$31,396,675	10.3%	8.0%
Large Cap Equity	\$61,884,190	20.4%	21.0%
Small/Mid Cap Equity	\$30,206,088	9.9%	11.0%
Int'l Large Cap Equity	\$43,091,281	14.2%	15.0%
Int'l Small/Mid Cap Equity	\$11,843,656	3.9%	4.0%
Int'l Emerging Market Equity	\$9,326,019	3.1%	3.0%
Long Biased	\$21,178,764	7.0%	7.0%
Opportunistic Credit	\$20,220,169	6.7%	7.0%
Real Estate	\$26,706,408	8.8%	9.0%
Special Opportunities	\$9,121,671	3.0%	0.0%
Total	\$303,799,198	100.0%	100.0%

Spokane Employees' Retirement System

As of September 30, 2019

Asset Allocation vs. Target

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Capital Preservation	\$69,873,815	23.0%	20.0% - 26.0%	\$70,220,951	23.1%	\$347,136	0.1%	Yes
Cash	\$0	0.0%	0.0% - 2.0%	\$128,450	0.0%	\$128,450	0.0%	Yes
Fidelity Instl Govt Money Market				\$128,450	0.0%			
Total Return Bond	\$30,379,920	10.0%	8.0% - 12.0%	\$25,318,563	8.3%	-\$5,061,357	-1.7%	Yes
Sterling Core Bond				\$25,318,563	8.3%			
High Yield Bond	\$15,189,960	5.0%	3.0% - 7.0%	\$13,377,263	4.4%	-\$1,812,697	-0.6%	Yes
Hotchkis & Wiley High Yield				\$13,377,263	4.4%			
Absolute Return	\$24,303,936	8.0%	6.0% - 10.0%	\$31,396,675	10.3%	\$7,092,739	2.3%	No
Polar Long/Short Fund				\$7,111,512	2.3%			
Post Lmted Term High Yield				\$6,432,954	2.1%			
Rimrock Low Volatility Offshore				\$10,018,765	3.3%			
Castine Partners II				\$7,833,444	2.6%			
Domestic Equities	\$97,215,743	32.0%	29.0% - 35.0%	\$92,090,278	30.3%	-\$5,125,465	-1.7%	Yes
Large Cap Equity	\$63,797,832	21.0%	19.0% - 23.0%	\$61,884,190	20.4%	-\$1,913,641	-0.6%	Yes
Hotchkis & Wiley Div Value I				\$16,113,167	5.3%			
Fidelity S&P 500				\$28,710,261	9.5%			
MFS Growth Fund CI R6				\$17,060,763	5.6%			
Small/Mid Cap Equity	\$33,417,912	11.0%	9.0% - 13.0%	\$30,206,088	9.9%	-\$3,211,824	-1.1%	Yes
Sterling Mid Cap Value				\$4,640,568	1.5%			

Spokane Employees' Retirement System

As of September 30, 2019

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Fidelity Mid Cap Index				\$4,310,263	1.4%			
Vanguard Mid Cap Growth				\$4,318,790	1.4%			
Frontier Sm Cap Value I				\$3,842,293	1.3%			
Fidelity Small Cap Index				\$877,602	0.3%			
Bridge City Small Growth				\$5,749,237	1.9%			
Champlain Small Cap				\$6,467,335	2.1%			
International Equities	\$66,835,824	22.0%	19.0% - 25.0%	\$64,260,956	21.2%	-\$2,574,867	-0.8%	Yes
Int'l Large Cap Equity	\$45,569,880	15.0%	13.0% - 17.0%	\$43,091,281	14.2%	-\$2,478,599	-0.8%	Yes
EuroPacific Growth R6				\$21,490,207	7.1%			
Artisan Int'l Value				\$21,601,074	7.1%			
Int'l Small/Mid Cap Equity	\$12,151,968	4.0%	2.0% - 6.0%	\$11,843,656	3.9%	-\$308,312	-0.1%	Yes
Victory Trivalent International Small Cap				\$11,843,656	3.9%			
Int'l Emerging Market Equity	\$9,113,976	3.0%	1.0% - 5.0%	\$9,326,019	3.1%	\$212,043	0.1%	Yes
Vanguard Emerging Markets Stock Index Fd				\$1,151,533	0.4%			
ABS Emerging Markets Strategic				\$8,174,487	2.7%			
Long Biased	\$21,265,944	7.0%	4.0% - 10.0%	\$21,178,764	7.0%	-\$87,180	0.0%	Yes
Long Biased	\$21,265,944	7.0%	4.0% - 10.0%	\$21,178,764	7.0%	-\$87,180	0.0%	Yes
Weatherlow Offshore				\$16,263,741	5.4%			
OrbiMed Royalty Opps II				\$2,601,037	0.9%			
OrbiMed Royalty Opportunities				\$2,313,986	0.8%			

Spokane Employees' Retirement System

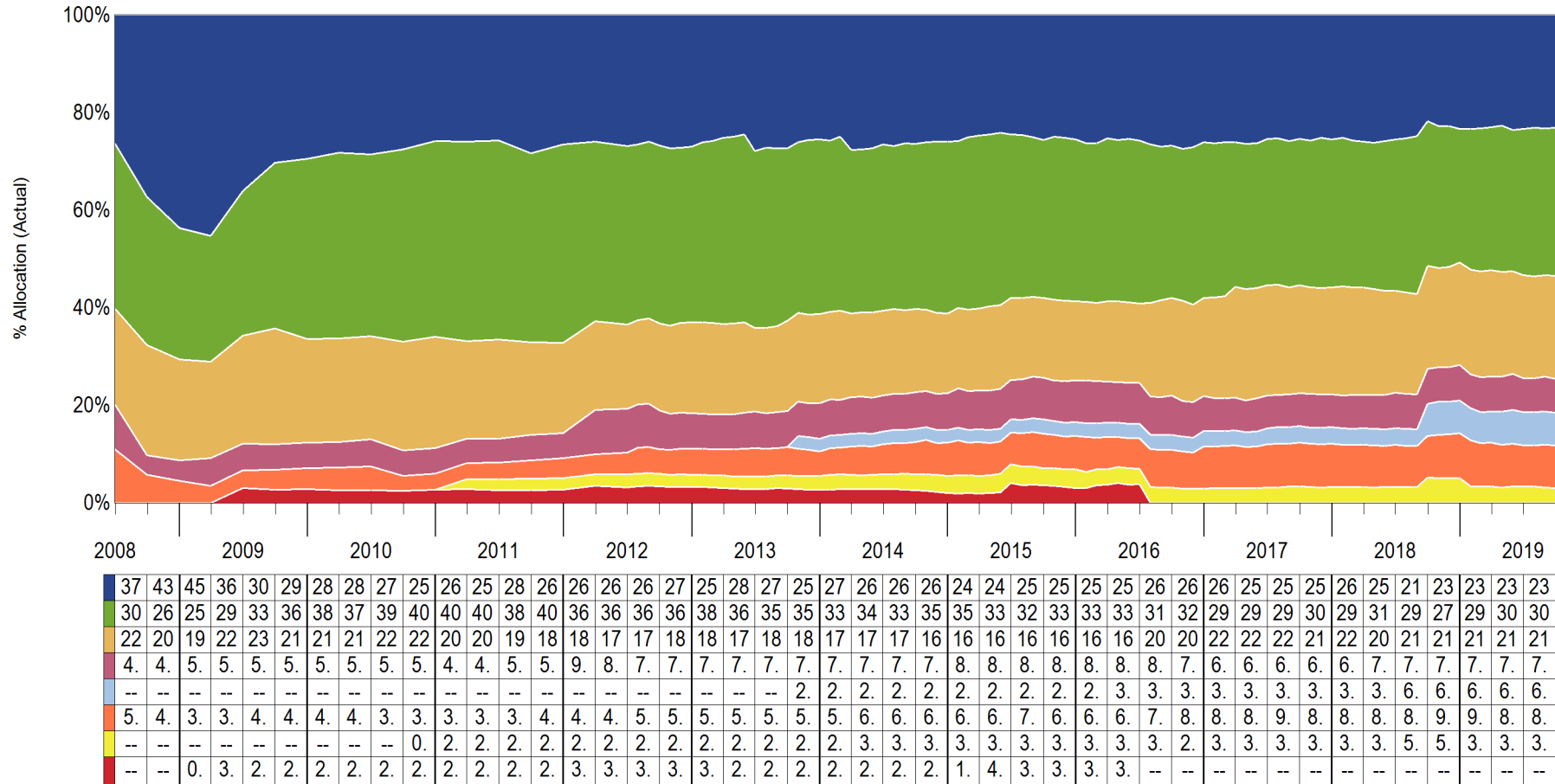
As of September 30, 2019

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Opportunistic Credit	\$21,265,944	7.0%	4.0% - 10.0%	\$20,220,169	6.7%	-\$1,045,775	-0.3%	Yes
Opportunistic Credit	\$21,265,944	7.0%	4.0% - 10.0%	\$20,220,169	6.7%	-\$1,045,775	-0.3%	Yes
Beach Point Select Fund LP				\$11,167,193	3.7%			
Contrarian Capital Fund I LP				\$9,052,976	3.0%			
Real Estate	\$27,341,928	9.0%	6.0% - 12.0%	\$26,706,408	8.8%	-\$635,520	-0.2%	Yes
Real Estate	\$27,341,928	9.0%	6.0% - 12.0%	\$26,706,408	8.8%	-\$635,520	-0.2%	Yes
Principal Global Investors REIT				\$12,609,210	4.2%			
Metropolitan Realty V				\$163,374	0.1%			
Morrison Street Fund V				\$2,313,907	0.8%			
Morrison Street Debt Opportunities Fund LP				\$4,183,821	1.4%			
Morgan Stanley Prime Property Fund				\$7,436,096	2.4%			
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$9,121,671	3.0%	\$9,121,671	3.0%	Yes
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$9,121,671	3.0%	\$9,121,671	3.0%	Yes
Orbimed Partners II				\$3,748,946	1.2%			
Contrarian Emerging Markets				\$5,372,725	1.8%			
Total	\$303,799,198	100.0%		\$303,799,198	100.0%			

Spokane Employees' Retirement System

As of September 30, 2019

Asset Allocation History
11 Years 3 Months Ending September 30, 2019



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

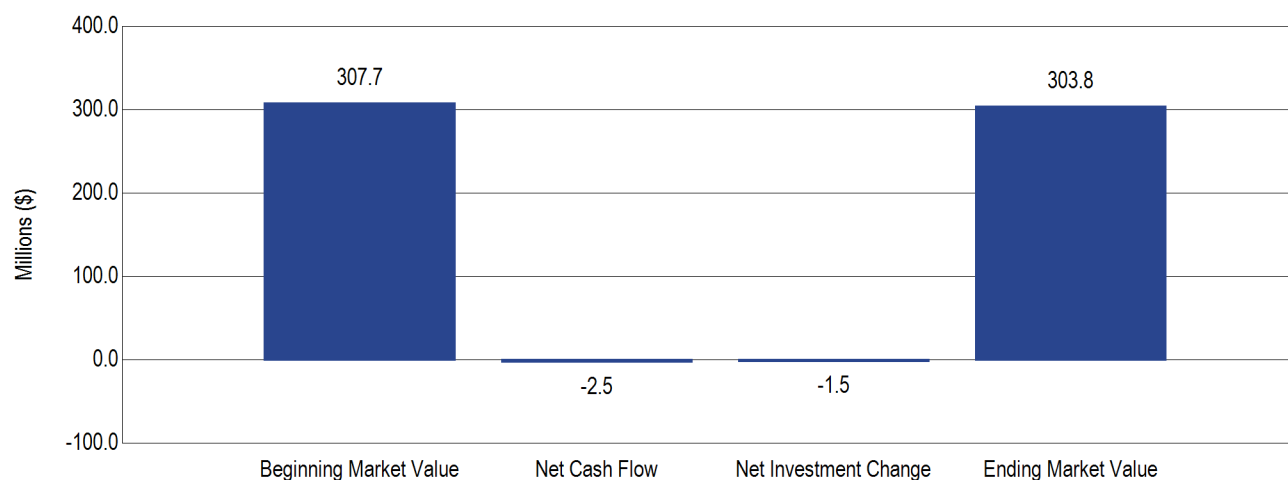
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Section 4

Spokane Employees' Retirement System

As of September 30, 2019

Change in Market Value
From July 01, 2019 To September 30, 2019



Cash Flow Summary

	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Ending Market Value (\$)
ABS Emerging Markets Strategic	8,425,861.99	0.00	0.00	0.00	-251,375.22	8,174,486.77
Artisan Int'l Value	21,737,007.71	0.00	0.00	0.00	-135,933.54	21,601,074.17
Beach Point Select Fund LP	11,033,823.00	0.00	0.00	0.00	133,370.00	11,167,193.00
Bridge City Small Growth	5,685,050.58	0.00	0.00	0.00	64,186.63	5,749,237.21
Castine Partners II	7,962,311.43	0.00	0.00	0.00	-128,867.87	7,833,443.56
Champlain Small Cap	6,550,482.89	0.00	0.00	0.00	-83,147.86	6,467,335.03
Contrarian Capital Fund I LP	9,955,158.19	0.00	0.00	0.00	-902,182.48	9,052,975.71
Contrarian Emerging Markets	6,266,361.22	0.00	0.00	0.00	-893,636.02	5,372,725.20
EuroPacific Growth R6	21,837,489.86	0.00	0.00	0.00	-347,283.06	21,490,206.80
Fidelity Instl Govt Money Market	1,067,112.41	6,871,802.57	-7,817,783.66	-945,981.09	7,319.07	128,450.39
Fidelity Mid Cap Index	4,291,215.85	0.00	0.00	0.00	19,046.68	4,310,262.53
Fidelity S&P 500	28,231,756.55	0.00	0.00	0.00	478,504.30	28,710,260.85
Fidelity Small Cap Index	898,614.38	0.00	0.00	0.00	-21,012.38	877,602.00

Spokane Employees' Retirement System

As of September 30, 2019

	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Ending Market Value (\$)
Frontier Sm Cap Value I	3,871,182.59	0.00	0.00	0.00	-28,889.42	3,842,293.17
Hotchkis & Wiley Div Value I	16,242,071.96	0.00	0.00	0.00	-128,905.33	16,113,166.63
Hotchkis & Wiley High Yield	13,461,407.24	0.00	0.00	0.00	-84,144.29	13,377,262.95
Jackson Square Large-Cap Growth Equity	17,324,882.84	0.00	-17,544,370.38	-17,544,370.38	219,487.54	--
Metropolitan Realty V	182,173.39	0.00	0.00	0.00	-18,799.19	163,374.20
MFS Growth Fund CI R6	--	17,544,370.38	0.00	17,544,370.38	-483,607.65	17,060,762.73
Morgan Stanley Prime Property Fund	7,404,576.18	0.00	-73,022.21	-73,022.21	104,542.17	7,436,096.14
Morrison Street Debt Opportunities Fund LP	4,213,647.00	0.00	-90,973.89	-90,973.89	61,147.89	4,183,821.00
Morrison Street Fund V	2,231,413.00	0.00	0.00	0.00	82,494.00	2,313,907.00
Orbimed Partners II	4,114,265.00	0.00	0.00	0.00	-365,319.00	3,748,946.00
OrbiMed Royalty Opportunities	2,353,768.66	0.00	-12,465.25	-12,465.25	-27,317.41	2,313,986.00
OrbiMed Royalty Opps II	2,657,998.35	0.00	-146,103.90	-146,103.90	89,142.55	2,601,037.00
Polar Long/Short Fund	7,245,250.88	0.00	0.00	0.00	-133,738.68	7,111,512.20
Post Lmtd Term High Yield	6,335,511.37	0.00	0.00	0.00	97,442.72	6,432,954.09
Principal Global Investors REIT	11,693,186.82	0.00	0.00	0.00	916,022.83	12,609,209.65
Rimrock Low Volatility Offshore	10,098,509.36	0.00	0.00	0.00	-79,744.48	10,018,764.88
Sterling Core Bond	25,826,313.98	0.00	-1,100,000.00	-1,100,000.00	592,249.28	25,318,563.26
Sterling Mid Cap Value	4,707,076.04	0.00	-100,000.00	-100,000.00	33,492.32	4,640,568.36
Vanguard Emerging Markets Stock Index Fd	1,194,543.21	0.00	0.00	0.00	-43,010.60	1,151,532.61
Vanguard Mid Cap Growth	4,451,267.81	0.00	0.00	0.00	-132,478.21	4,318,789.60
Victory Trivalent International Small Cap	11,798,725.47	0.00	0.00	0.00	44,930.41	11,843,655.88
Weatherlow Offshore	16,385,225.44	0.00	0.00	0.00	-121,484.28	16,263,741.16
Total	307,735,242.65	24,416,172.95	-26,884,719.29	-2,468,546.34	-1,467,498.58	303,799,197.73

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.