



HYAS
GROUP

Spokane Employees' Retirement System

December 31, 2019 Performance Report

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Section 1


DIVERSIFICATION – THE BROKEN DECADE?

We've been indoctrinated through financial theory and literature that diversification is essential to investing success. However, in the 2010's it bluntly has not worked. In the past decade, US equities (S&P 500 Index) have generated an annualized return of 13.5% vs. 4.9% for the rest of the world (MSCI ACWI ex-US). This includes outperformance in 8 of 10 calendar years. With the emergence of China as a global economic power and historically unprecedented growth rates, surely emerging market returns have added additional value to investor portfolios? Not exactly. Emerging markets have generated annualized returns of 3.6% over the past decade, averaging nearly 10% less than the US market per year. Beyond geographic diversification, we are also generally taught that diversifying across business sectors and market capitalizations is essential for risk-adjusted performance. During the 2010's small cap stocks generated annualized returns of 11.8% lagging their large cap brethren by nearly 2% per year, while Technology stocks handily outpaced all others to provide consistent market leadership throughout the decade.

Technology and innovation are the threads that run through and tie these performance differences together. While narrow market leadership is not a new phenomenon (look no further than the prior Technology bubble of the 1990s), the emergence of a handful of Technology companies, domiciled in the US and operating on a global platform, with few if any competitors has driven extensive profit growth in the US. Cumulative earnings growth for the S&P 500 for the past 10 years is 111% vs. total stock returns of 134%. Point being, P/E expansion has been moderate, and gains have been largely supported by strong earnings fundamentals of innovative global companies. Technology stocks with global market presence continue to make up a much larger percentage of the US stock market than other developed markets. Based on GICS statistics, Technology stocks represent roughly 25-30% of the domestic stock market. For comparison, Technology represents 5-10% of developed European markets and 10-15% in Japan. Not only are these innovators higher percentages of the domestic equity markets, but US Technology companies also consistently generate higher returns on assets. The combination of significantly higher returns on assets and higher market weights currently provide a structural advantage for domestic equity markets relative to the rest of the developed world.

RETURN ON ASSETS (%)

COUNTRY	CONSUMER STAPLES	CONSUMER DISCRETIONARY	TECHNOLOGY	HEALTHCARE	COMMUNICATION SVCS	FINANCIALS
US	5.9	6.1	9.8	5.6	5.6	1.2
EUROPE	6.3	4.2	5.3	5.5	1.6	0.4
JAPAN	3.5	3.6	4.3	4.2	4.1	0.3

Source: Bloomberg, December 31, 2019.

While diversification is not broken, a globalized economy demands and rewards innovators with higher returns on assets and larger end markets (growth opportunities). Companies demonstrating innovation and the ability to expand into global markets should be expected to generate structurally higher returns over longer time periods. This would also suggest the market indices on which these companies trade will outperform over the long-term. There is a strong case to be made that the superior domestic returns of the 2010's merely reflect US leadership in innovative global Technology companies. Investors are then left to evaluate whether that leadership is sustainable and whether those leaders remain reasonably priced.

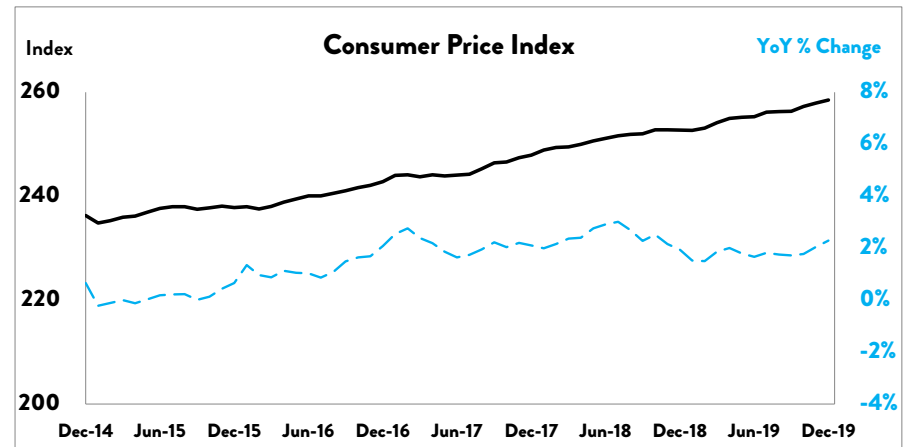
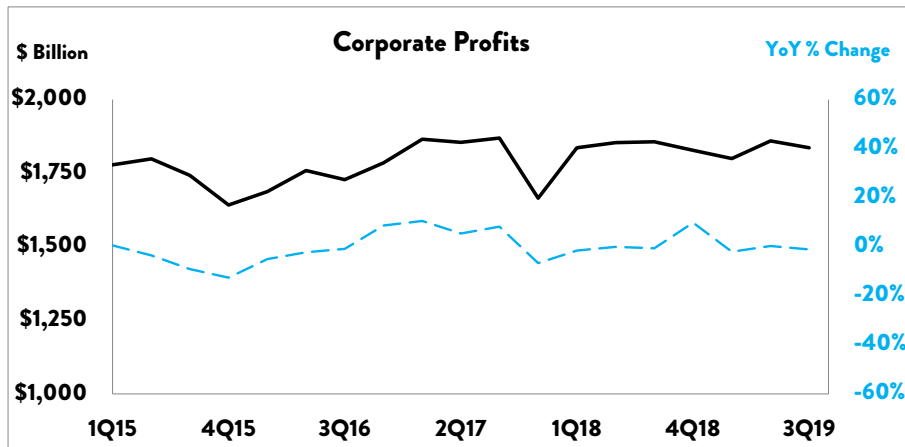
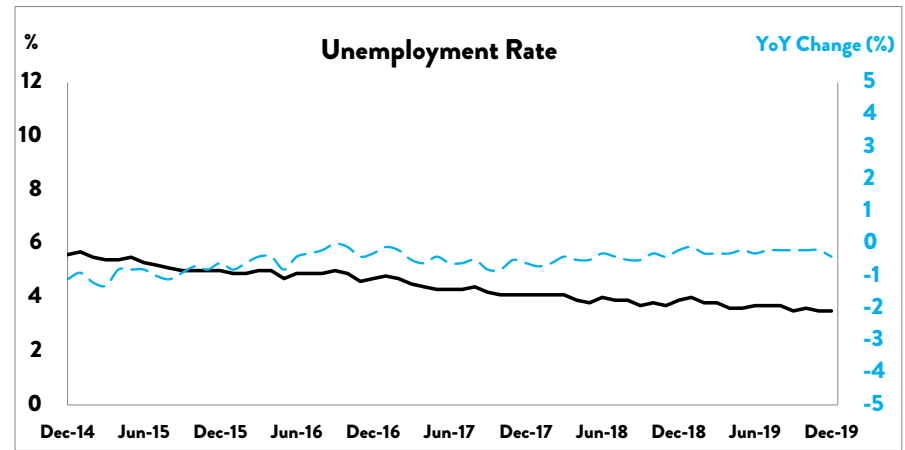
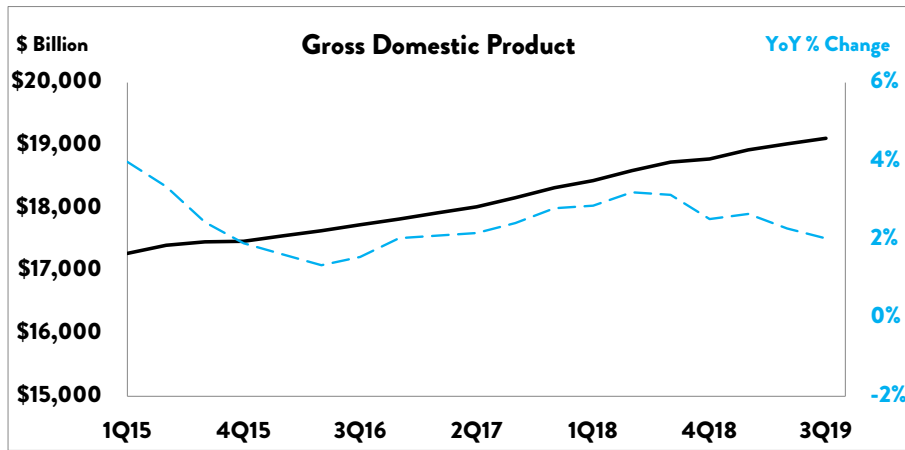
GLOBAL ECONOMIC LANDSCAPE

- After raising rates in December of 2018, the Federal Reserve (Fed) indicated that investors should expect multiple interest rate hikes in 2019. After a subsequent stock market collapse the Fed responded with a more neutral stance of no rate hikes in 2019. This “pause” then turned to a full “pivot” as global economic growth appeared to stall and turn negative. The Fed pivot resulted in three rate cuts in 2019 that essentially erased all the Fed’s rate increases of 2018.
- The unemployment rate held steady at 3.5% to end the year, 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. Contrary to popular opinion, this economy has benefited a broad range of employees. Unemployment for those with less than a high school education recently declined to 5.3%, a 30-year low. Wage growth continued its deliberate rise and now stands at 3.7%, just shy of its 50-year average rate of 4.0%.
- After much anticipation and plenty of false starts, the US and China agreed to a “Phase One” trade deal in December. In some small or not so small way, global investors may have pigs to thank for this progress. More specifically, China has come down with African swine fever, but this goes far beyond a prescription and extended bed rest. The fever has wiped out nearly half of China’s domestic pig herd in just over a year. China is the largest global pork consumer and local pork prices have increased over 100% in the last year. This has driven consumer price inflation (CPI) in China to 4.5% YOY, well above the central bank’s 3.0% target. Excluding the price increases of pork, CPI rose at a mere 1.0%. With higher inflation, China has less tolerance for the inflationary impact of a trade war.

GLOBAL FINANCIAL MARKETS

- Over the last 20 years, the 50 largest stocks in the Russell 3000 Index have averaged a combined total market cap of roughly four times the total market cap of the Russell 2000. At the end of 2019, that ratio was more than six times – higher than it was even at the height of the internet bubble of 2000.
- Despite domestic equity markets demonstrating historically high operating earnings and margins, valuations remain consistently above historical averages. The current forward price/earnings ratio for the S&P 500 Index is 18.2 times expected 2020 earnings. This compares to the 25-year average of 16.3. Price-to-book and price-to-cash flow also remain well above their historical averages.
- Developed market interest rates have declined consistently over the past decade, with several countries declining into negative rate territory. Declining interest rates have been strongly correlated to outperformance by momentum growth and low volatility stocks at the expense of value stocks. In the fourth quarter, global rates reversed course across nearly all developed markets. Correlations followed suit, with value stocks performing especially well versus low volatility stocks.
- Yield seekers with a penchant for volatility continue to be well rewarded for investing in emerging market debt. Despite the high-profile collapse of Argentinian debt, which saw bond prices cut in half in 3Q2019, the Barclays EM Debt Index rose over 2.0% for the quarter and 13.0% for the year. This often-dismissed asset class has benefited from significant gains in breadth. The asset class has five times more countries than at its inception in 1993 while the maximum weight to any single country has declined from 20.0% to less than 5.0%.

4Q2019 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	145,000	351,000	14,000	200,500	Dec-19
Unemployment Rate	3.5%	5.7%	3.5%	4.4%	Dec-19
Median Unemployment Length (Weeks)	8.4	13.5	6.6	10.2	Dec-19
Average Hourly Earnings	\$28.32	\$28.32	\$24.75	\$26.41	Dec-19

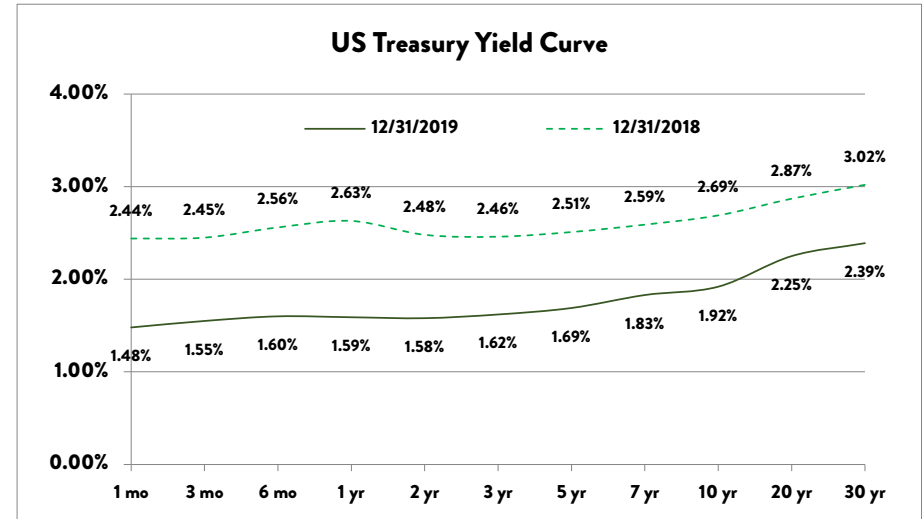
Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$2.54	\$2.88	\$1.79	-11.9%	Dec-19
Spot Oil	\$59.88	\$70.98	\$30.32	-15.6%	Dec-19
Case-Shiller Home Price Index	218.1	218.1	173.1	26.0%*	Oct-19
Medical Care CPI	511.7	511.7	441.0	16%*	Dec-19

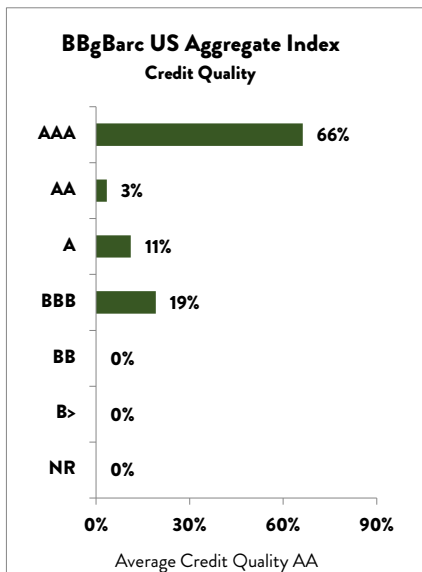
*% Off Low

4Q2019 Bond Market Data

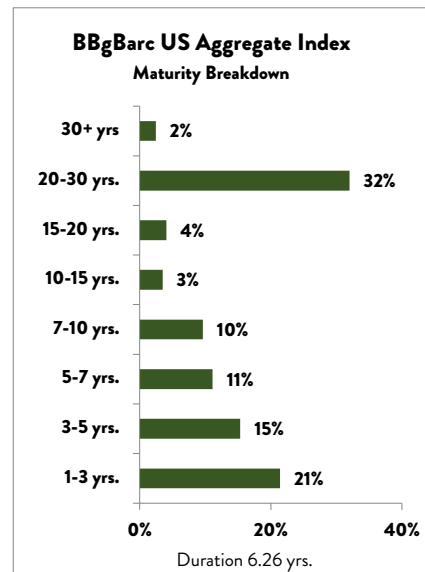
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.46%	2.30%	2.30%	1.57%	0.99%	0.54%
BBgBarc US Aggregate	0.18%	8.72%	8.72%	4.03%	3.05%	3.75%
BBgBarc Short US Treasury	0.50%	2.46%	2.46%	1.71%	1.16%	0.67%
BBgBarc Int. US Treasury	0.01%	5.22%	5.22%	2.57%	1.99%	2.46%
BBgBarc Long US Treasury	-4.12%	14.83%	14.83%	6.95%	4.13%	7.01%
BBgBarc US TIPS	0.79%	8.43%	8.43%	3.32%	2.62%	3.36%
BBgBarc US Credit	1.05%	13.80%	13.80%	5.75%	4.39%	5.32%
BBgBarc US Mortgage-Backed	0.71%	6.35%	6.35%	3.25%	2.58%	3.15%
BBgBarc US Asset-Backed	0.39%	4.53%	4.53%	2.61%	2.22%	2.72%
BBgBarc US 20-Yr Municipal	0.65%	9.29%	9.29%	5.89%	4.39%	5.46%
BBgBarc US High Yield	2.61%	14.32%	14.32%	6.37%	6.13%	7.57%
BBgBarc Global	0.49%	6.84%	6.84%	4.27%	2.31%	2.48%
BBgBarc International	0.67%	5.09%	5.09%	4.36%	1.62%	1.50%
BBgBarc Emerging Market	2.09%	13.11%	13.11%	6.07%	5.84%	6.62%



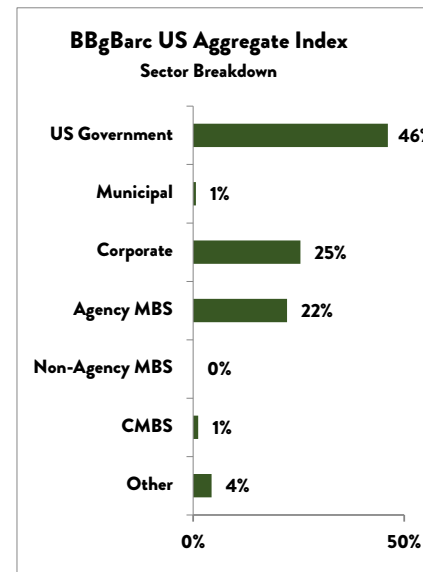
Source: Department of US Treasury



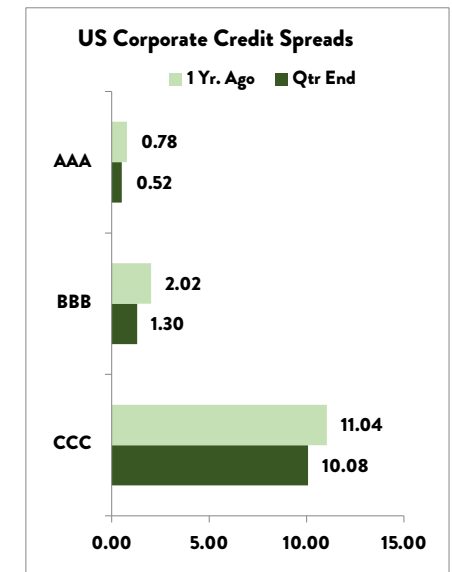
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

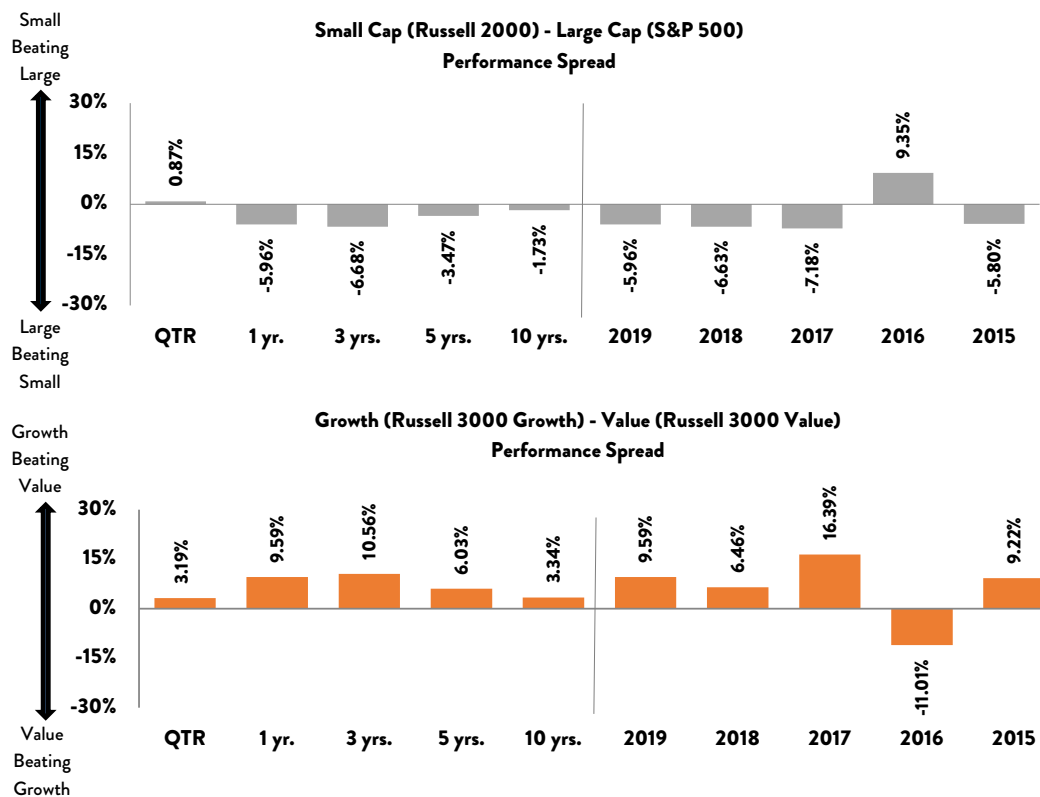
4Q2019 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

S&P 500 Index	Wgt.	Sector	QTR	YTD	1 yr.
	23%	Information Technology	14.40%	50.29%	50.29%
	14%	Health Care	14.37%	20.82%	20.82%
	13%	Financials	10.47%	32.13%	32.13%
	10%	Communication Services	9.00%	32.69%	32.69%
	3%	Materials	6.38%	24.58%	24.58%
	9%	Industrials	5.53%	29.37%	29.37%
	4%	Energy	5.49%	11.81%	11.81%
	10%	Consumer Discretionary	4.47%	27.94%	27.94%
	7%	Consumer Staples	3.51%	27.61%	27.61%
3%	Utilities	0.75%	26.35%	26.35%	
3%	Real Estate	-0.54%	29.01%	29.01%	
S&P Midcap 400 Index	Wgt.	Sector	QTR	YTD	1 yr.
	2%	Energy	13.27%	-12.43%	-12.43%
	16%	Information Technology	11.24%	42.91%	42.91%
	10%	Health Care	11.04%	22.68%	22.68%
	16%	Industrials	8.39%	33.55%	33.55%
	13%	Consumer Discretionary	7.76%	26.57%	26.57%
	6%	Materials	6.89%	20.88%	20.88%
	17%	Financials	5.15%	26.47%	26.47%
	2%	Communication Services	3.82%	16.29%	16.29%
	3%	Consumer Staples	3.03%	10.85%	10.85%
11%	Real Estate	2.75%	24.17%	24.17%	
5%	Utilities	-2.11%	14.33%	14.33%	
S&P Smallcap 600 Index	Wgt.	Sector	QTR	YTD	1 yr.
	12%	Health Care	14.06%	20.26%	20.26%
	14%	Information Technology	11.70%	39.59%	39.59%
	4%	Consumer Staples	8.53%	16.90%	16.90%
	18%	Financials	7.85%	20.52%	20.52%
	5%	Materials	7.44%	20.57%	20.57%
	17%	Industrials	7.27%	29.64%	29.64%
	14%	Consumer Discretionary	6.85%	17.64%	17.64%
	4%	Energy	6.50%	-14.77%	-14.77%
	2%	Communication Services	2.82%	5.77%	5.77%
7%	Real Estate	2.77%	26.92%	26.92%	
2%	Utilities	0.07%	22.99%	22.99%	

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	9.07%	31.49%	31.49%	15.27%	11.70%	13.56%
Russell 1000 Value	7.41%	26.54%	26.54%	9.68%	8.29%	11.80%
Russell 1000 Growth	10.62%	36.39%	36.39%	20.49%	14.63%	15.22%
Russell Mid Cap	7.06%	30.54%	30.54%	12.06%	9.33%	13.19%
Russell Mid Cap Value	6.36%	27.06%	27.06%	8.10%	7.62%	12.41%
Russell Mid Cap Growth	8.17%	35.47%	35.47%	17.36%	11.60%	14.24%
Russell 2000	9.94%	25.52%	25.52%	8.59%	8.23%	11.83%
Russell 2000 Value	8.49%	22.39%	22.39%	4.77%	6.99%	10.56%
Russell 2000 Growth	11.39%	28.48%	28.48%	12.49%	9.34%	13.01%
Russell 3000	9.10%	31.02%	31.02%	14.57%	11.24%	13.42%
DJ US Select REIT	-1.23%	23.10%	23.10%	6.95%	6.40%	11.57%



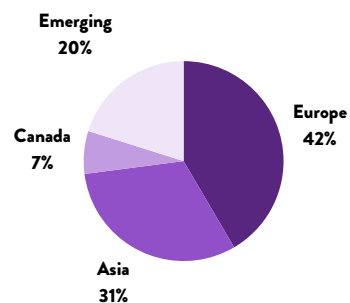
4Q2019 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	8.92%	21.51%	21.51%	9.87%	5.51%	4.97%
MSCI EAFE	8.17%	22.01%	22.01%	9.56%	5.67%	5.50%
Europe	8.84%	23.77%	23.77%	9.77%	5.06%	5.17%
United Kingdom	9.95%	21.05%	21.05%	8.32%	3.25%	5.05%
Germany	9.89%	20.77%	20.77%	6.27%	3.89%	5.18%
France	8.50%	25.72%	25.72%	12.19%	8.15%	4.99%
Pacific	7.03%	19.25%	19.25%	9.35%	7.00%	6.33%
Japan	7.64%	19.61%	19.61%	8.92%	7.70%	6.59%
Hong Kong	7.32%	10.34%	10.34%	11.47%	7.09%	8.12%
Australia	4.29%	22.92%	22.92%	9.07%	5.42%	5.01%
Canada	4.89%	27.50%	27.50%	7.01%	2.97%	3.59%
MSCI EM	11.84%	18.42%	18.42%	11.57%	5.61%	3.68%
MSCI EM Latin America	10.48%	17.46%	17.46%	10.74%	4.18%	-0.65%
MSCI EM Asia	12.51%	19.24%	19.24%	12.92%	6.63%	5.76%
MSCI EM Eur/Mid East	8.49%	19.33%	19.33%	8.32%	5.68%	0.03%
MSCI ACWI Value ex-US	8.21%	15.71%	15.71%	6.88%	3.65%	3.64%
MSCI ACWI Growth ex-US	9.58%	27.34%	27.34%	12.89%	7.30%	6.24%
MSCI ACWI Sm Cap ex-US	11.01%	22.42%	22.42%	9.65%	7.04%	6.92%

Regional Exposure

MSCI ACWI ex-USA

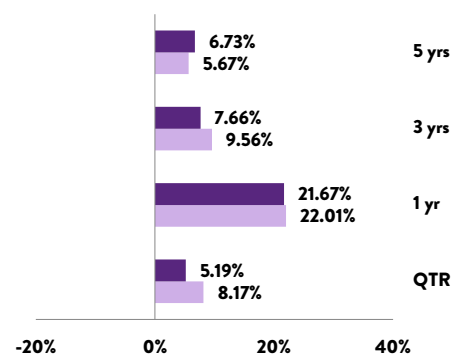


Top 10 Countries (MSCI AC World ex-USA)

Japan	16%
UK	11%
China	9%
France	8%
Canada	6%
Switzerland	6%
Germany	6%
Australia	5%
Taiwan	3%
South Korea	3%

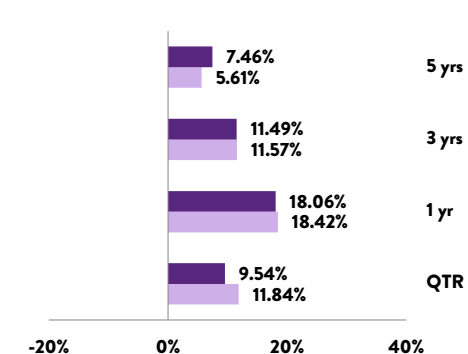
MSCI EAFE Index Return

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

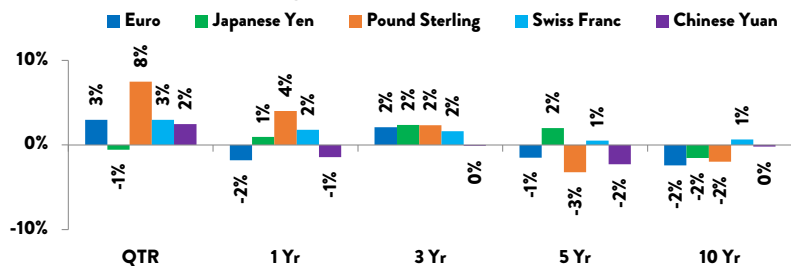


MSCI Emerging Index Return

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

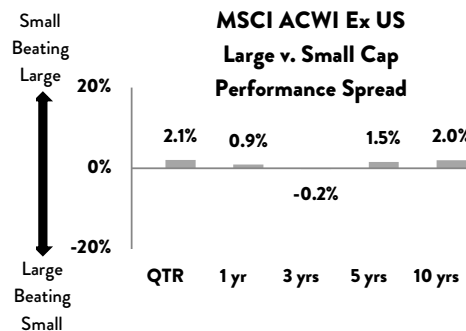


Foreign Currency v. US\$ Returns

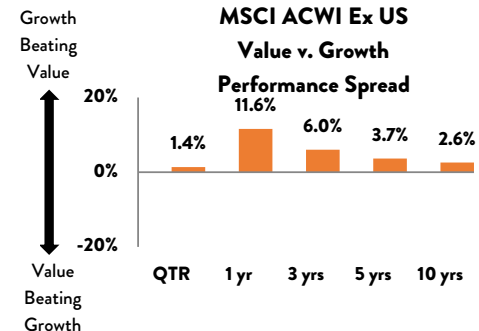


Exchange Rates	QTR	3Q19	2Q19	1Q19	4Q18	3Q18
Japanese Yen	108.67	108.11	107.84	110.68	109.70	113.48
Euro	0.89	0.92	0.88	0.89	0.87	0.86
British Pound	0.75	0.81	0.79	0.77	0.78	0.77
Swiss Franc	0.97	1.00	0.98	1.00	0.98	0.98
Chinese Yuan	6.96	7.15	6.87	6.71	6.88	6.87

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	2019	4Q19
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%	Large Cap 31.49%	Emerging Markets 11.84%
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%	Mid Cap 30.54%	Small Cap 9.94%
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 25.52%	Large Cap 9.07%
Small Cap 18.33%	Intl 16.62%	Large Cap 15.79%	Core Real Estate 14.84%	TIPS -2.35%	Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Global Bonds -1.20%	Intl 21.51%	Intl 8.92%
Global Balanced 12.18%	Mid Cap 12.65%	Core Real Estate 15.27%	TIPS 11.64%	Core Real Estate -10.70%	Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76	Global Balanced 15.87%	TIPS -1.26%	Global Balanced 18.86%	Mid Cap 7.06%
Core Real Estate 12.00%	Large Cap 4.91%	Mid Cap 15.26%	Global Bonds 9.48%	Global Balanced -24.51%	Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	High Yield -2.08%	Emerging Markets 18.42%	Global Balanced 5.33%
High Yield 11.13%	Small Cap 4.55%	Global Balanced 14.53%	Global Balanced 9.07%	High Yield -26.16%	Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Large Cap -4.38%	High Yield 14.32%	Commod. 4.42%
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%	US Bonds 8.72%	High Yield 2.61%
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%	TIPS 8.43%	Core Real Estate 1.29%
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%	Commod. 7.69%	TIPS 0.79%
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%	Global Bonds 6.84%	Global Bonds 0.49%
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 4.41%	Cash 0.46%
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 2.30%	US Bonds 0.18%

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

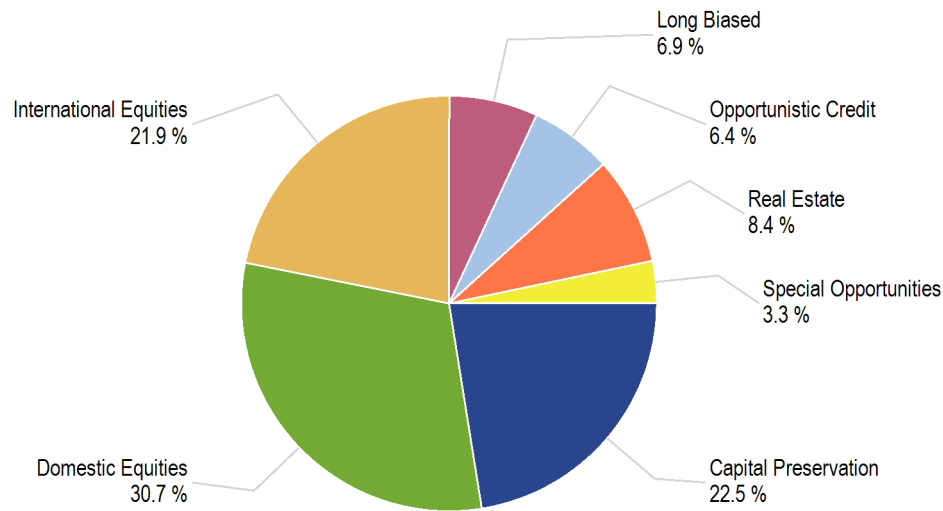
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Section 2

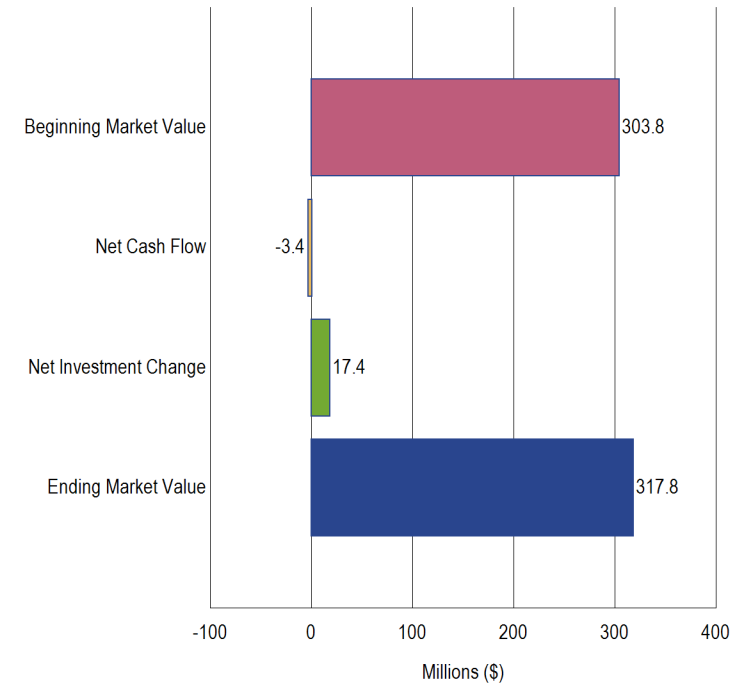
Spokane Employees' Retirement System

As of December 31, 2019

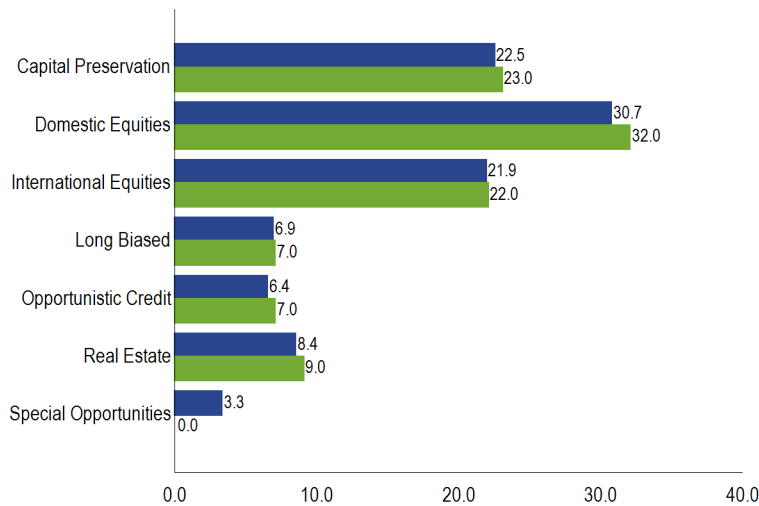
Current Allocation



Current Quarter



Actual vs Target Allocation (%)



Current Market Value:

\$317,821,959

Policy Index

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

Actual Policy

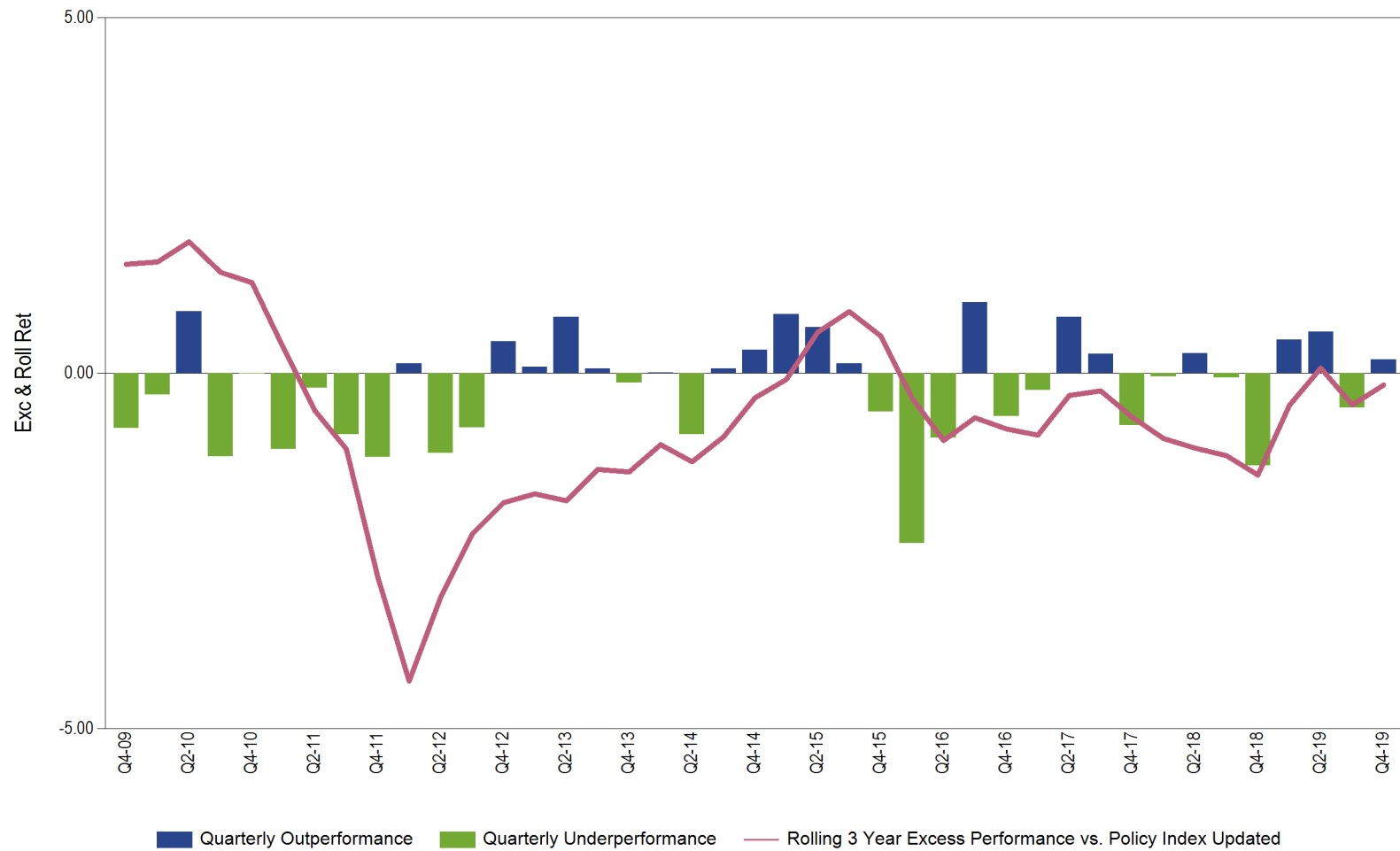
Return Summary



Performance Net of Fees

Performance greater than 1 year is annualized

Rolling Annualized Excess Performance



RISK RETURN STATISTICS

Trailing 3 Years

	SERS Plan Total	Policy Index Updated
RETURN SUMMARY STATISTICS		
Number of Periods	12	12
Maximum Return	8.88	8.41
Minimum Return	-9.67	-8.37
Annualized Return	8.58	8.75
Total Return	28.02	28.61
Annualized Excess Return Over Risk Free	6.94	7.11
Annualized Excess Return	-0.17	0.00
RISK SUMMARY STATISTICS		
Beta	1.10	1.00
Upside Deviation	4.32	4.67
Downside Deviation	10.75	11.57
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	8.99	8.16
Alpha	-0.23	0.00
Sharpe Ratio	0.77	0.87
Excess Return Over Market / Risk	-0.02	0.00
Tracking Error	1.19	0.00
Information Ratio	-0.14	--
CORRELATION STATISTICS		
R-Squared	0.99	1.00
Correlation	1.00	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	6.24	6.72
Total Return	35.33	38.46
Annualized Excess Return Over Risk Free	5.19	5.67
Annualized Excess Return	-0.49	0.00
RISK SUMMARY STATISTICS		
Beta	1.06	1.00
Upside Deviation	4.15	3.91
Downside Deviation	8.48	8.48
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	7.97	7.36
Alpha	-0.21	0.00
Sharpe Ratio	0.65	0.77
Excess Return Over Market / Risk	-0.06	0.00
Tracking Error	1.65	0.00
Information Ratio	-0.29	--
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 December 31, 2019

RISK RETURN STATISTICS

January 01, 2007 Through December 31, 2019

	SERS Plan Total	Policy Index Updated
RETURN SUMMARY STATISTICS		
Number of Periods	52	52
Maximum Return	12.42	16.64
Minimum Return	-14.46	-17.38
Annualized Return	5.75	5.94
Total Return	106.91	111.73
Annualized Excess Return Over Risk Free	4.87	5.06
Annualized Excess Return	-0.19	0.00
RISK SUMMARY STATISTICS		
Beta	0.88	1.00
Upside Deviation	5.92	7.22
Downside Deviation	9.16	10.15
RISK/RETURN SUMMARY STATISTICS		
Annualized Standard Deviation	10.94	12.22
Alpha	0.12	0.00
Sharpe Ratio	0.45	0.41
Excess Return Over Market / Risk	-0.02	0.00
Tracking Error	2.50	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 December 31, 2019

Total Account Performance Summary

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
SERS Plan Total	5.76	18.35	18.35	8.58	6.24	7.64	18.35	-6.27	15.40	6.71	-0.94	5.34	18.89	5.75	Jan-07
Policy Index Updated	<u>5.56</u>	<u>17.53</u>	<u>17.53</u>	<u>8.75</u>	<u>6.72</u>	<u>8.39</u>	<u>17.53</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>5.94</u>	Jan-07
Over/Under	0.20	0.82	0.82	-0.17	-0.48	-0.75	0.82	-1.18	0.11	-3.15	1.06	-0.45	0.97	-0.19	
70/30 ACWI/Barclays Aggregate Bond	6.27	21.21	21.21	10.02	6.95	7.47	21.21	-6.48	17.50	6.42	-1.30	4.77	14.87	5.45	Jan-07
InvMetrics All DB \$250mm-\$1B Net Rank	14	57	57	70	80	78	57	83	42	74	47	63	8	61	Jan-07
Capital Preservation	1.62	8.71	8.71	4.46	3.90	--	8.71	-0.94	5.85	8.12	-1.74	1.65	2.70	3.70	Jul-12
Capital Preservation Index	<u>1.23</u>	<u>9.11</u>	<u>9.11</u>	<u>4.25</u>	<u>3.50</u>	<u>4.27</u>	<u>9.11</u>	<u>-0.72</u>	<u>4.60</u>	<u>5.43</u>	<u>-0.58</u>	<u>4.23</u>	<u>3.33</u>	<u>3.84</u>	Jul-12
Over/Under	0.39	-0.40	-0.40	0.21	0.40		-0.40	-0.22	1.25	2.69	-1.16	-2.58	-0.63	-0.14	
Domestic Equity	8.30	29.14	29.14	12.59	9.55	--	29.14	-7.80	19.86	10.91	-0.32	11.10	36.38	13.23	Jul-12
Domestic Equity Index	<u>8.89</u>	<u>30.24</u>	<u>30.24</u>	<u>13.59</u>	<u>10.78</u>	<u>13.27</u>	<u>30.24</u>	<u>-6.30</u>	<u>20.11</u>	<u>13.92</u>	<u>-0.06</u>	<u>11.44</u>	<u>33.91</u>	<u>13.95</u>	Jul-12
Over/Under	-0.59	-1.10	-1.10	-1.00	-1.23		-1.10	-1.50	-0.25	-3.01	-0.26	-0.34	2.47	-0.72	
All Cap Blend MStar MF Rank	49	41	41	39	41	--	41	45	37	70	33	38	35	39	Jul-12
International Equity Total	9.77	25.02	25.02	10.59	6.76	6.84	25.02	-15.78	28.45	3.91	-1.32	-3.58	20.93	4.92	Apr-07
International Equity Index	<u>9.70</u>	<u>21.27</u>	<u>21.27</u>	<u>10.08</u>	<u>5.84</u>	<u>5.18</u>	<u>21.27</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>3.15</u>	Apr-07
Over/Under	0.07	3.75	3.75	0.51	0.92	1.66	3.75	-0.82	-0.90	-1.43	4.17	0.05	7.45	1.77	
Foreign MStar MF Rank	39	37	37	37	34	34	37	50	42	24	67	32	56	18	Apr-07
Long Biased	3.30	12.74	12.74	5.33	3.35	--	12.74	2.43	1.19	-2.99	4.04	3.62	9.56	4.56	Jul-12
HFRI Fund of Funds Composite Index	<u>3.12</u>	<u>8.42</u>	<u>8.42</u>	<u>3.90</u>	<u>2.37</u>	<u>2.83</u>	<u>8.42</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>3.71</u>	Jul-12
Over/Under	0.18	4.32	4.32	1.43	0.98		4.32	6.45	-6.58	-3.50	4.31	0.26	0.60	0.85	
S&P 500	9.07	31.49	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	14.56	Jul-12
Opportunistic Credit	1.20	1.14	1.14	0.71	3.67	--	1.14	-5.68	7.08	14.52	2.35	2.32	--	3.98	Oct-13
HFRI ED: Distressed/Restructuring Index	<u>-0.11</u>	<u>2.92</u>	<u>2.92</u>	<u>2.44</u>	<u>2.62</u>	<u>4.49</u>	<u>2.92</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>2.56</u>	Oct-13
Over/Under	1.31	-1.78	-1.78	-1.73	1.05		-1.78	-3.98	0.83	-0.63	10.41	3.71		1.42	

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%

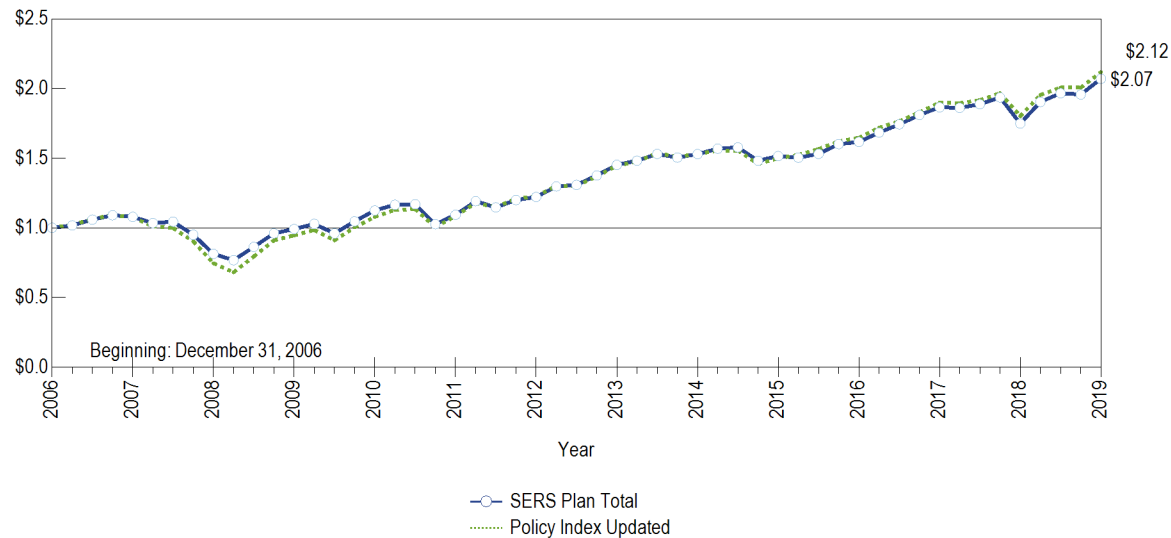
Spokane Employees' Retirement System

As of December 31, 2019

Total Account Performance Summary

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Real Estate Total	1.15	16.62	16.62	9.98	8.93	12.47	16.62	3.68	10.01	8.09	6.66	25.00	8.71	5.99	Apr-07
NCREIF-ODCE	1.51	5.34	5.34	7.10	8.97	11.42	5.34	8.35	7.62	8.76	15.02	12.48	13.94	5.91	Apr-07
Over/Under	-0.36	11.28	11.28	2.88	-0.04	1.05	11.28	-4.67	2.39	-0.67	-8.36	12.52	-5.23	0.08	
FTSE NAREIT All REIT	0.55	28.07	28.07	10.30	8.45	12.46	28.07	-4.10	9.27	9.28	2.29	27.15	3.21	5.92	Apr-07
US Real Estate Equity Rank	17	99	99	38	21	54	99	1	11	32	7	94	7	69	Apr-07
Special Opportunities	13.38	10.54	10.54	7.06	-0.43	--	10.54	-11.43	25.32	-21.90	2.13	25.88	31.60	6.57	Jul-12
Russell 3000	9.10	31.02	31.02	14.57	11.24	13.42	31.02	-5.24	21.13	12.73	0.48	12.56	33.55	14.31	Jul-12
Over/Under	4.28	-20.48	-20.48	-7.51	-11.67	--	-20.48	-6.19	4.19	-34.63	1.65	13.32	-1.95	-7.74	

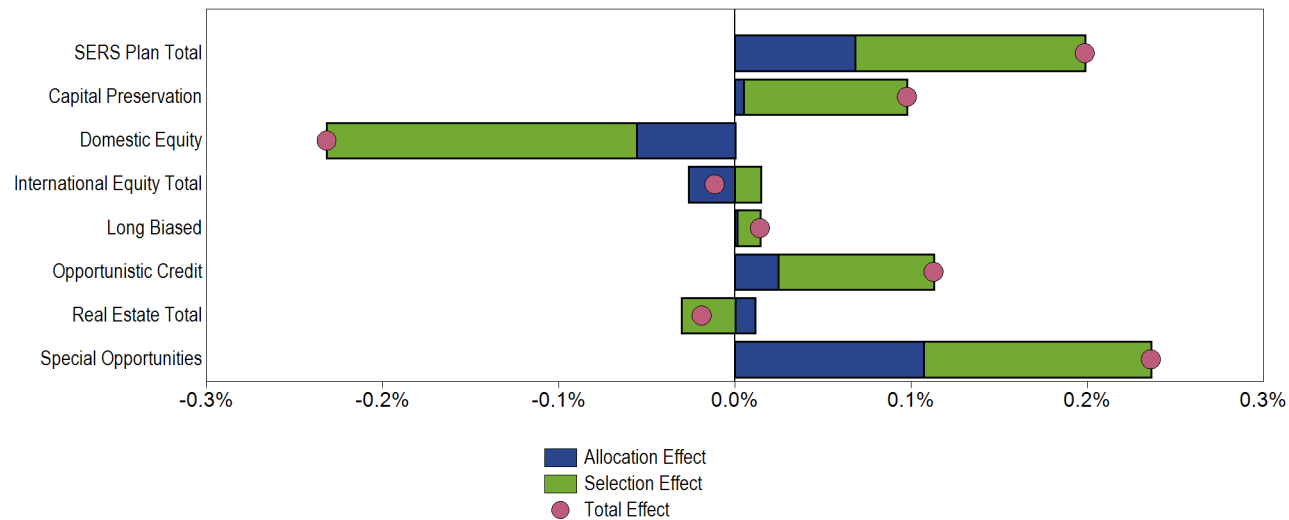
Growth of a Dollar



Attribution Summary
3 Months Ending December 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	1.6%	1.2%	0.4%	0.1%	0.0%	0.1%
Domestic Equity	8.3%	8.9%	-0.6%	-0.2%	-0.1%	-0.2%
International Equity Total	9.8%	9.7%	0.1%	0.0%	0.0%	0.0%
Long Biased	3.3%	3.1%	0.2%	0.0%	0.0%	0.0%
Opportunistic Credit	1.2%	-0.1%	1.3%	0.1%	0.0%	0.1%
Real Estate Total	1.2%	1.5%	-0.4%	0.0%	0.0%	0.0%
Special Opportunities	13.4%	9.1%	4.3%	0.1%	0.1%	0.2%
Total	5.8%	5.6%	0.2%	0.1%	0.1%	0.2%

Attribution Effects
3 Months Ending December 31, 2019



Attributions reflect new policy index

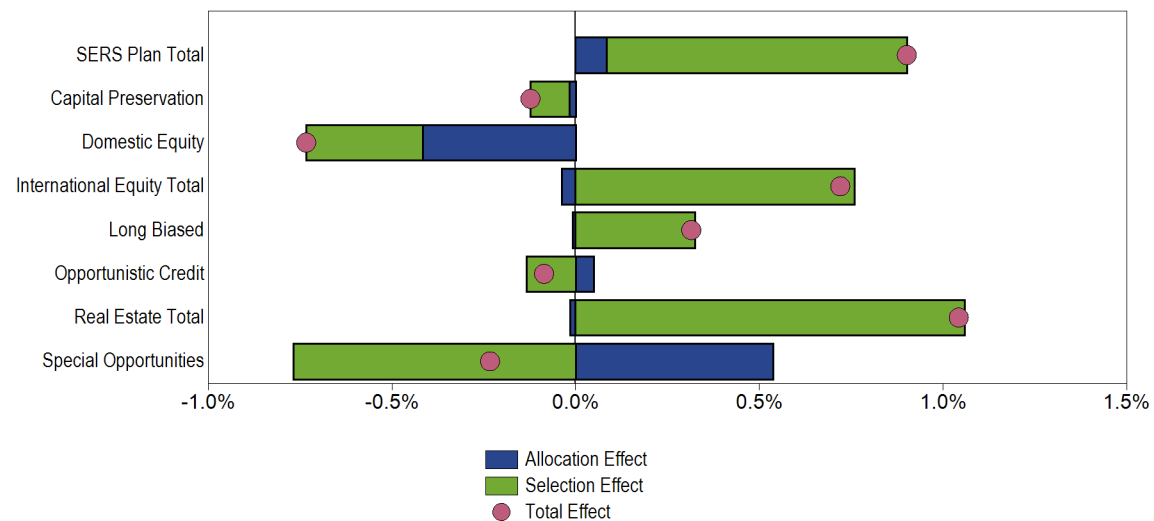
Spokane Employees' Retirement System

As of December 31, 2019

Attribution Summary 1 Year Ending December 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	8.7%	9.1%	-0.4%	-0.1%	0.0%	-0.1%
Domestic Equity	29.1%	30.2%	-1.1%	-0.3%	-0.4%	-0.7%
International Equity Total	25.0%	21.3%	3.7%	0.8%	0.0%	0.7%
Long Biased	12.7%	8.4%	4.3%	0.3%	0.0%	0.3%
Opportunistic Credit	1.1%	2.9%	-1.8%	-0.1%	0.0%	-0.1%
Real Estate Total	16.6%	5.3%	11.3%	1.1%	0.0%	1.0%
Special Opportunities	10.5%	31.0%	-20.5%	-0.8%	0.5%	-0.2%
Total	18.4%	17.5%	0.9%	0.8%	0.1%	0.9%

Attribution Effects 1 Year Ending December 31, 2019

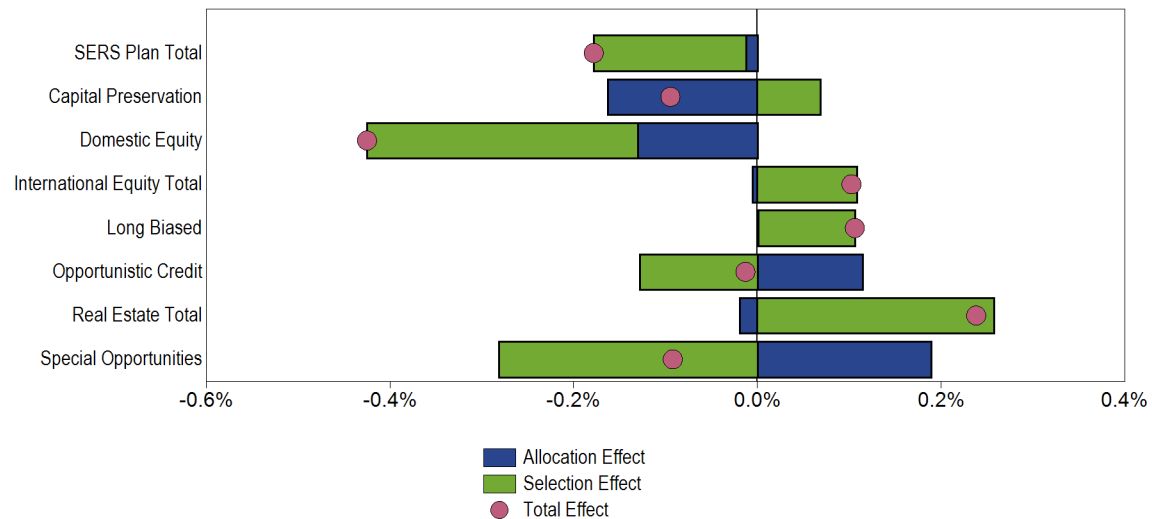


Attributions reflect new policy index

Attribution Summary
3 Years Ending December 31, 2019

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Capital Preservation	4.5%	4.3%	0.2%	0.1%	-0.2%	-0.1%
Domestic Equity	12.6%	13.6%	-1.0%	-0.3%	-0.1%	-0.4%
International Equity Total	10.6%	10.1%	0.5%	0.1%	0.0%	0.1%
Long Biased	5.3%	3.9%	1.4%	0.1%	0.0%	0.1%
Opportunistic Credit	0.7%	2.4%	-1.7%	-0.1%	0.1%	0.0%
Real Estate Total	10.0%	7.1%	2.9%	0.3%	0.0%	0.2%
Special Opportunities	7.1%	14.6%	-7.5%	-0.3%	0.2%	-0.1%
Total	8.6%	8.8%	-0.2%	-0.2%	0.0%	-0.2%

Attribution Effects
3 Years Ending December 31, 2019

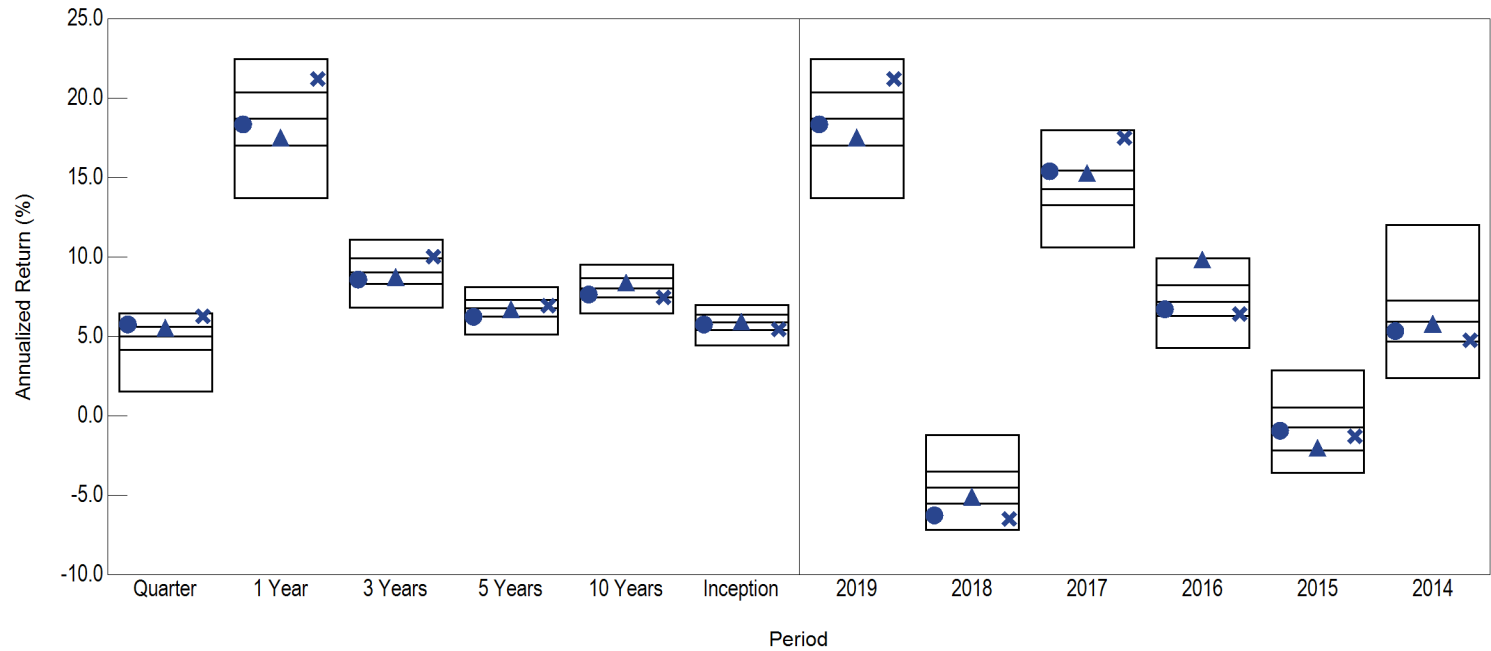


Attributions reflect new policy index

Spokane Employees' Retirement System

As of December 31, 2019

InvMetrics All DB \$50mm-\$250mm Net Return Comparison
Ending December 31, 2019



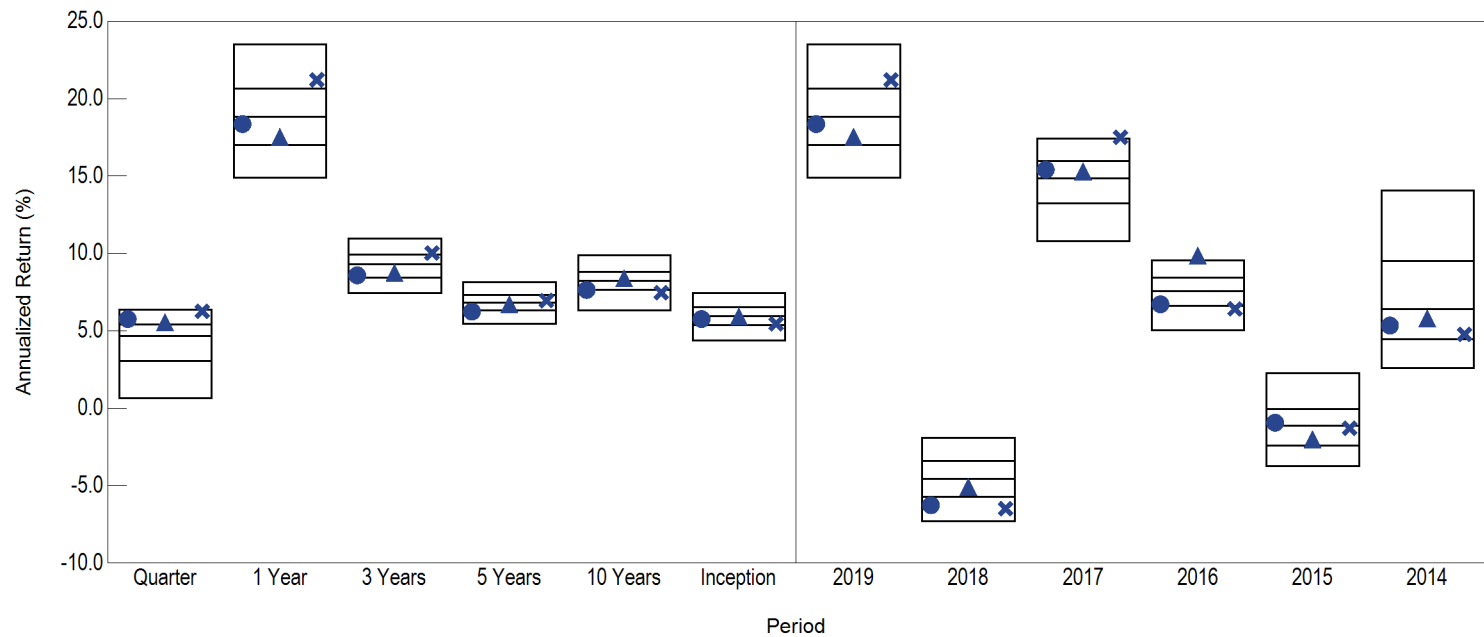
Return (Rank)

5th Percentile	6.5	22.5	11.1	8.1	9.5	7.0	22.5	-1.2	18.0	9.9	2.9	12.0
25th Percentile	5.6	20.4	9.9	7.3	8.7	6.4	20.4	-3.5	15.5	8.3	0.6	7.3
Median	5.0	18.7	9.1	6.8	8.1	5.9	18.7	-4.5	14.3	7.2	-0.7	6.0
75th Percentile	4.2	17.1	8.4	6.3	7.5	5.4	17.1	-5.5	13.3	6.3	-2.1	4.7
95th Percentile	1.6	13.7	6.9	5.2	6.5	4.5	13.7	-7.1	10.7	4.3	-3.5	2.4
# of Portfolios	511	509	484	450	361	302	509	538	326	321	330	285
● SERS Plan Total	5.8 (21)	18.4 (57)	8.6 (70)	6.2 (78)	7.6 (70)	5.8 (60)	18.4 (57)	-6.3 (87)	15.4 (27)	6.7 (66)	-0.9 (55)	5.3 (66)
▲ Policy Index Updated	5.6 (29)	17.5 (69)	8.7 (63)	6.7 (56)	8.4 (35)	5.9 (50)	17.5 (69)	-5.1 (68)	15.3 (29)	9.9 (6)	-2.0 (72)	5.8 (54)
× 70/30 ACWI/Barclays Aggregate Bond	6.3 (8)	21.2 (16)	10.0 (22)	6.9 (45)	7.5 (76)	5.5 (75)	21.2 (16)	-6.5 (89)	17.5 (8)	6.4 (73)	-1.3 (60)	4.8 (74)

Spokane Employees' Retirement System

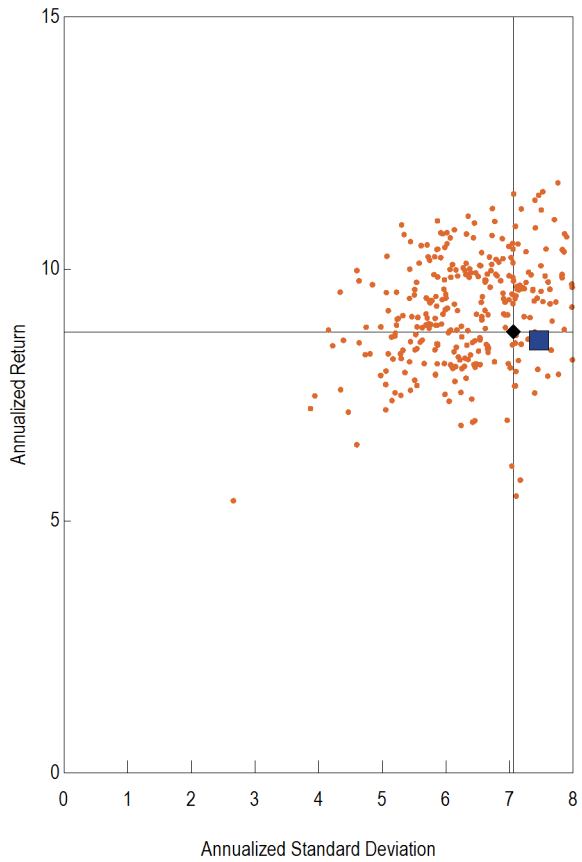
As of December 31, 2019

InvMetrics All DB \$250mm-\$1B Net Return Comparison
Ending December 31, 2019

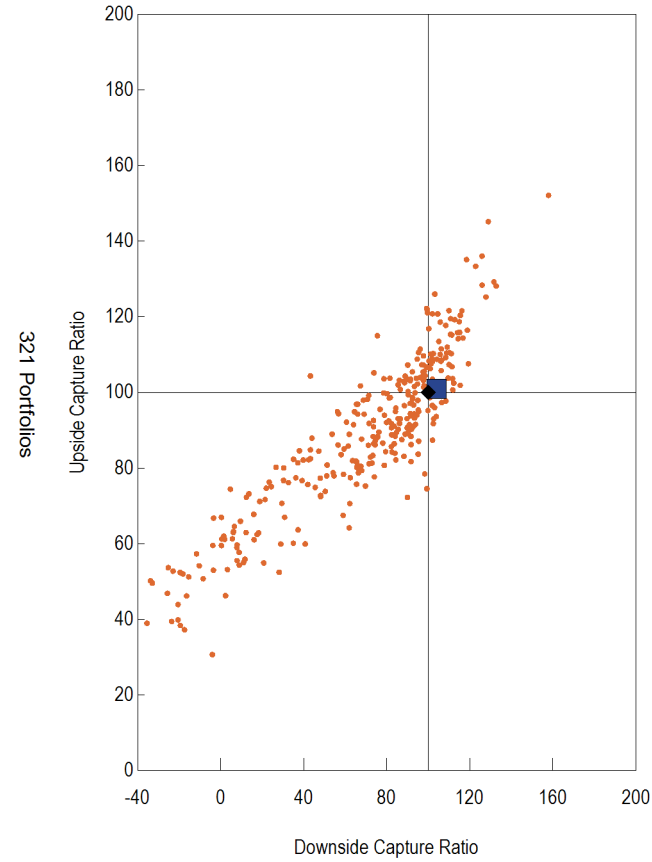


	Quarter	1 Year	3 Years	5 Years	10 Years	Inception	2019	2018	2017	2016	2015	2014
Return (Rank)												
5th Percentile	6.4	23.5	11.0	8.1	9.9	7.4	23.5	-1.9	17.4	9.6	2.2	14.1
25th Percentile	5.4	20.7	10.0	7.3	8.8	6.6	20.7	-3.4	16.0	8.5	0.0	9.6
Median	4.7	18.9	9.3	6.9	8.3	6.0	18.9	-4.5	14.9	7.6	-1.1	6.4
75th Percentile	3.1	17.0	8.5	6.3	7.7	5.4	17.0	-5.7	13.3	6.6	-2.4	4.5
95th Percentile	0.7	14.9	7.5	5.5	6.4	4.4	14.9	-7.2	10.8	5.1	-3.7	2.6
# of Portfolios	332	332	321	299	231	196	332	326	237	248	231	212
● SERS Plan Total	5.8 (14)	18.4 (57)	8.6 (70)	6.2 (80)	7.6 (78)	5.8 (61)	18.4 (57)	-6.3 (83)	15.4 (42)	6.7 (74)	-0.9 (47)	5.3 (63)
▲ Policy Index Updated	5.6 (21)	17.5 (68)	8.7 (67)	6.7 (59)	8.4 (47)	5.9 (54)	17.5 (68)	-5.1 (62)	15.3 (43)	9.9 (4)	-2.0 (69)	5.8 (61)
✕ 70/30 ACWI/Barclays Aggregate Bond	6.3 (6)	21.2 (20)	10.0 (24)	6.9 (46)	7.5 (82)	5.5 (73)	21.2 (20)	-6.5 (86)	17.5 (4)	6.4 (78)	-1.3 (56)	4.8 (73)

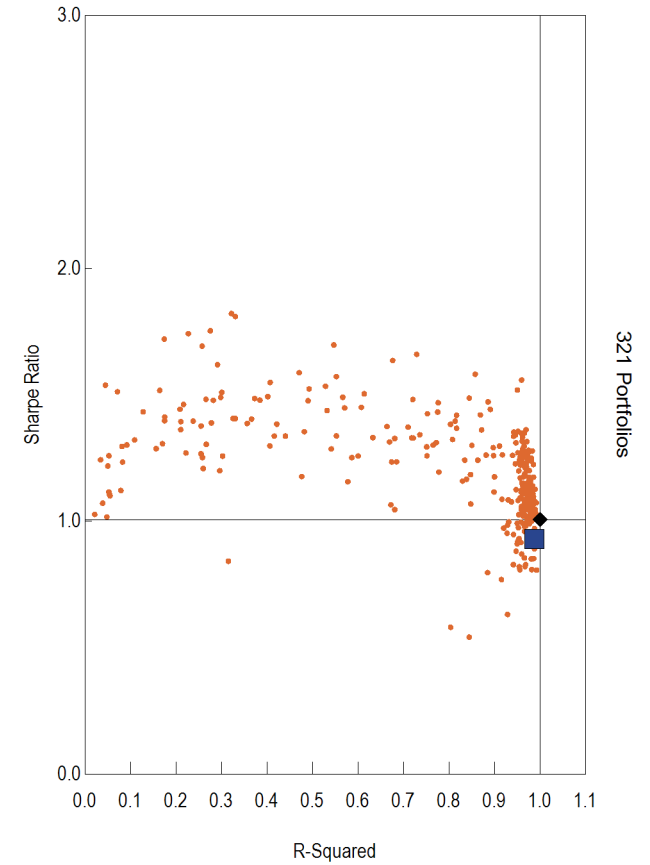
Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2019



Upside Capture Ratio vs. Downside Capture Ratio
3 Years Ending December 31, 2019



Sharpe Ratio vs. R-Squared
3 Years Ending December 31, 2019

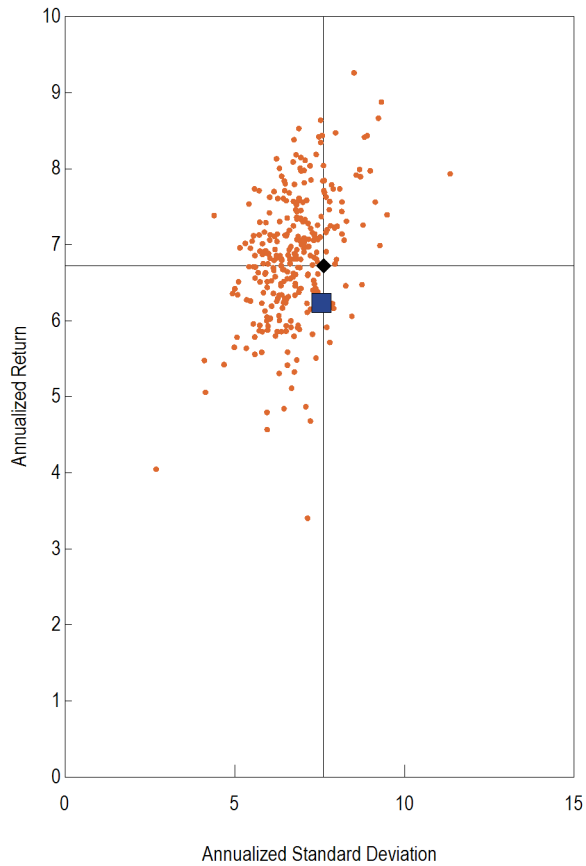


- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

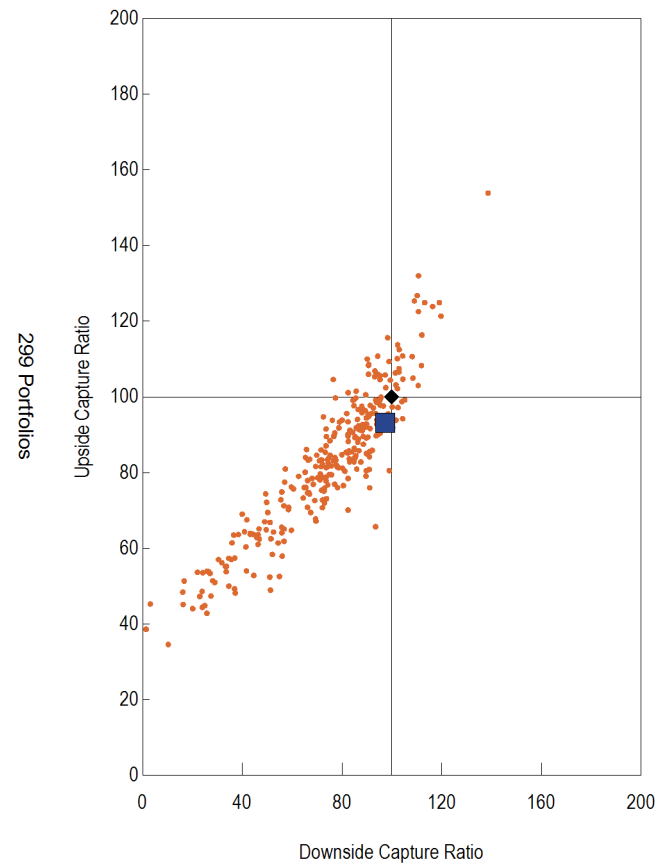
- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

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

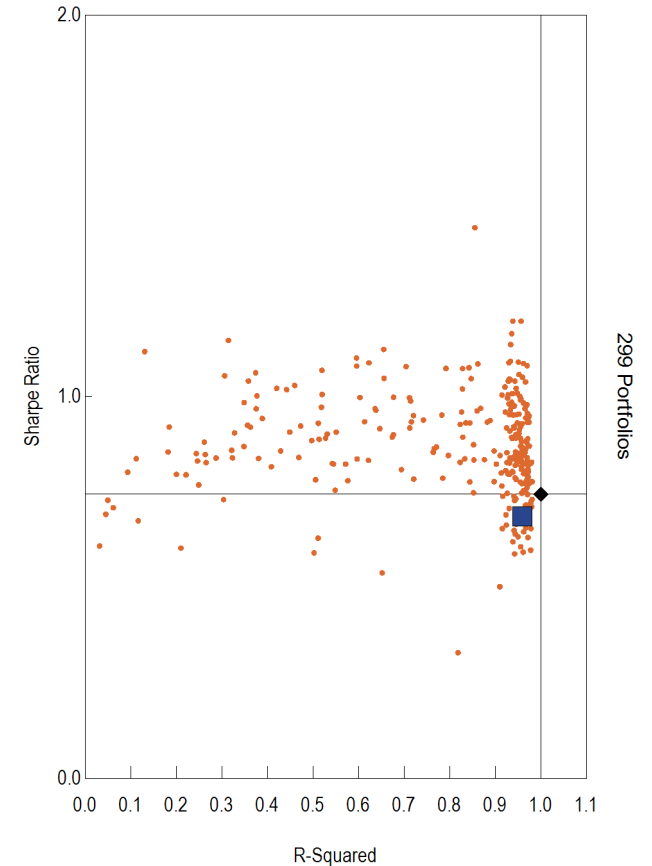
Annualized Return vs. Annualized Standard Deviation
5 Years Ending December 31, 2019



Upside Capture Ratio vs. Downside Capture Ratio
5 Years Ending December 31, 2019



Sharpe Ratio vs. R-Squared
5 Years Ending December 31, 2019

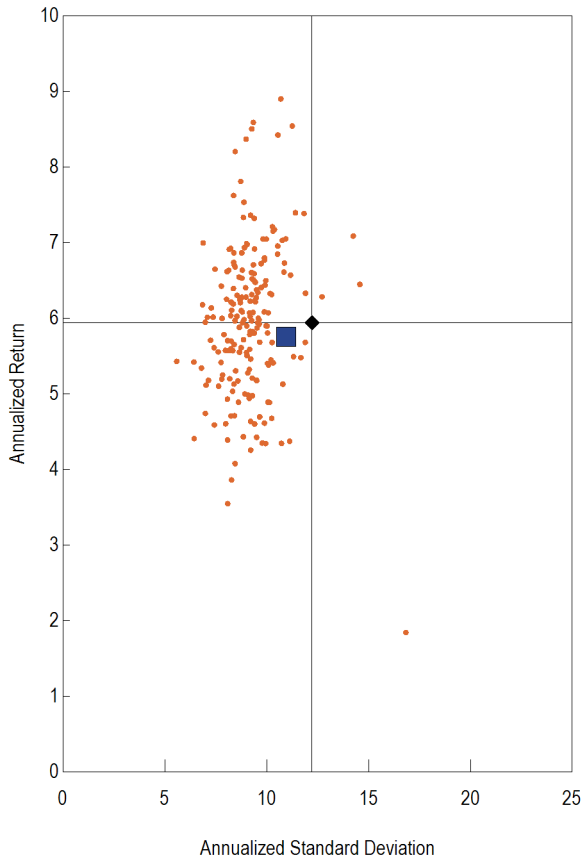


- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

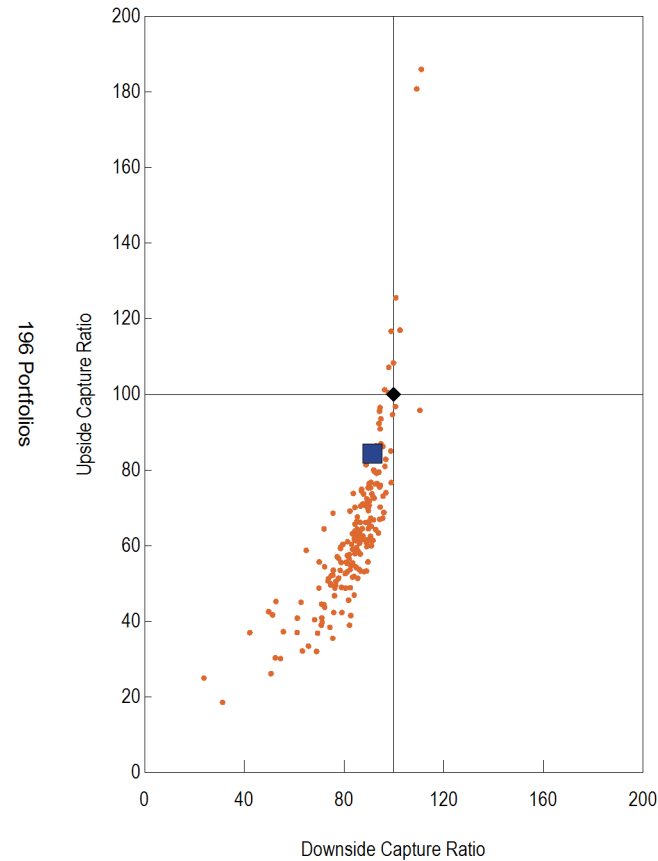
- SERS Plan Total
- ◆ Policy Index Updated
- InvMetrics All DB \$250mm-\$1B Net

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

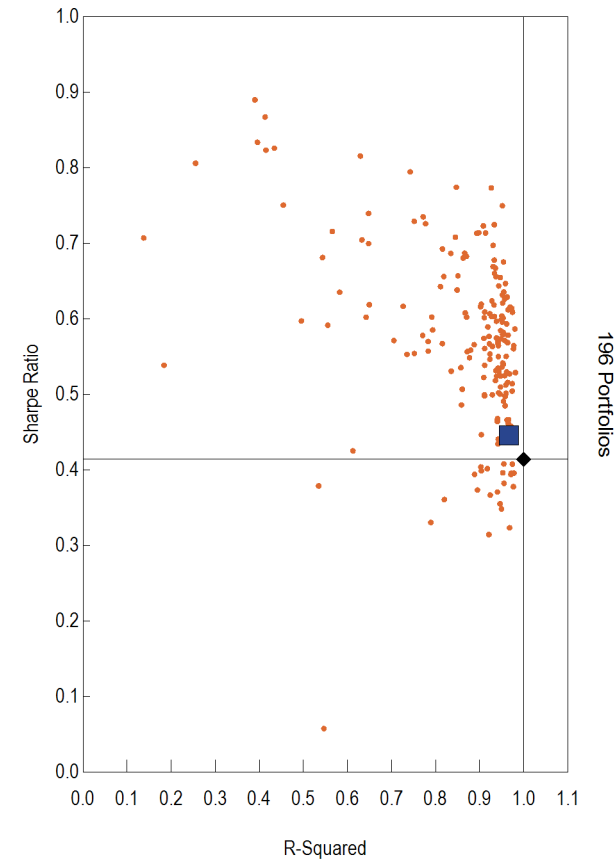
Annualized Return vs. Annualized Standard Deviation
13 Years Ending December 31, 2019



Upside Capture Ratio vs. Downside Capture Ratio
13 Years Ending December 31, 2019



Sharpe Ratio vs. R-Squared
13 Years Ending December 31, 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 December 31, 2019

Asset Class Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	Inception (%)	Inception Date
Capital Preservation	1.62	8.71	8.71	4.46	3.90	8.71	-0.94	5.85	8.12	-1.74	1.65	3.70	Jul-12
Capital Preservation Index	1.23	9.11	9.11	4.25	3.50	9.11	-0.72	4.60	5.43	-0.58	4.23	3.84	Jul-12
Over/Under	0.39	-0.40	-0.40	0.21	0.40	-0.40	-0.22	1.25	2.69	-1.16	-2.58	-0.14	
Total Return Bond	0.26	9.38	9.38	4.42	--	9.38	-0.09	4.20	--	--	--	3.28	Sep-16
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	8.72	0.01	3.54	2.65	0.55	5.97	2.75	Sep-16
Over/Under	0.08	0.66	0.66	0.39		0.66	-0.10	0.66				0.53	
Intermediate Core Bond MStar MF Rank	27	23	23	15	--	23	38	38	--	--	--	8	Sep-16
High Yield	2.31	9.71	9.71	4.65	4.45	9.71	-3.46	8.22	16.67	-7.05	0.68	5.10	Jul-12
BBgBarc US High Yield TR	2.61	14.32	14.32	6.37	6.13	14.32	-2.08	7.50	17.13	-4.47	2.45	6.47	Jul-12
Over/Under	-0.30	-4.61	-4.61	-1.72	-1.68	-4.61	-1.38	0.72	-0.46	-2.58	-1.77	-1.37	
High Yield Bond MStar MF Rank	65	86	86	87	87	86	74	18	13	92	70	84	Jul-12
Absolute Return	2.44	8.10	8.10	4.03	4.00	8.10	-1.11	5.33	7.75	0.29	3.15	4.08	Jul-12
HFRI FOF: Conservative Index	1.67	6.35	6.35	3.16	2.34	6.35	-0.87	4.12	1.89	0.37	3.14	3.46	Jul-12
Over/Under	0.77	1.75	1.75	0.87	1.66	1.75	-0.24	1.21	5.86	-0.08	0.01	0.62	
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	8.72	0.01	3.54	2.65	0.55	5.97	2.78	Jul-12
Domestic Equity	8.30	29.14	29.14	12.59	9.55	29.14	-7.80	19.86	10.91	-0.32	11.10	13.23	Jul-12
Domestic Equity Index	8.89	30.24	30.24	13.59	10.78	30.24	-6.30	20.11	13.92	-0.06	11.44	13.95	Jul-12
Over/Under	-0.59	-1.10	-1.10	-1.00	-1.23	-1.10	-1.50	-0.25	-3.01	-0.26	-0.34	-0.72	
All Cap Blend MStar MF Rank	49	41	41	39	41	41	45	37	70	33	38	39	Jul-12
Domestic Large Cap Equity	8.94	30.06	30.06	13.73	9.68	30.06	-7.70	22.54	8.24	-0.32	12.85	8.49	Apr-07
S&P 500	9.07	31.49	31.49	15.27	11.70	31.49	-4.38	21.83	11.96	1.38	13.69	8.94	Apr-07
Over/Under	-0.13	-1.43	-1.43	-1.54	-2.02	-1.43	-3.32	0.71	-3.72	-1.70	-0.84	-0.45	
Large Blend MStar MF Rank	45	52	52	59	67	52	78	24	83	53	39	55	Apr-07
Domestic Small/Mid Equity	7.01	27.27	27.27	10.38	9.10	27.27	-8.05	14.91	15.37	-0.39	8.69	12.83	Jul-12
Russell 2500	8.54	27.77	27.77	10.33	8.93	27.77	-10.00	16.81	17.59	-2.90	7.07	12.66	Jul-12
Over/Under	-1.53	-0.50	-0.50	0.05	0.17	-0.50	1.95	-1.90	-2.22	2.51	1.62	0.17	
SMID Blend MStar MF Rank	65	31	31	16	17	31	12	39	75	10	24	20	Jul-12

Spokane Employees' Retirement System

As of December 31, 2019

Asset Class Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	Inception (%)	Inception Date
International Equity Total	9.77	25.02	25.02	10.59	6.76	25.02	-15.78	28.45	3.91	-1.32	-3.58	4.92	Apr-07
International Equity Index	9.70	21.27	21.27	10.08	5.84	21.27	-14.96	29.35	5.34	-5.49	-3.63	3.15	Apr-07
Over/Under	0.07	3.75	3.75	0.51	0.92	3.75	-0.82	-0.90	-1.43	4.17	0.05	1.77	
Foreign MStar MF Rank	39	37	37	37	34	37	50	42	24	67	32	18	Apr-07
International Large Cap Equity	9.65	25.78	25.78	10.82	6.95	25.78	-15.14	27.50	4.02	-1.13	-1.38	9.48	Jul-12
MSCI ACWI ex USA	8.92	21.51	21.51	9.87	5.51	21.51	-14.20	27.19	4.50	-5.66	-3.87	6.88	Jul-12
Over/Under	0.73	4.27	4.27	0.95	1.44	4.27	-0.94	0.31	-0.48	4.53	2.49	2.60	
Foreign Large Blend MStar MF Rank	19	15	15	9	6	15	51	31	23	56	12	4	Jul-12
International Small/Mid Cap Equity	9.83	27.88	27.88	11.78	8.33	27.88	-20.33	37.08	-0.68	7.56	-12.10	9.18	Jul-12
MSCI ACWI xUS Small (net)	11.01	22.42	22.42	9.65	7.04	22.42	-18.20	31.65	3.91	2.60	-4.03	8.46	Jul-12
Over/Under	-1.18	5.46	5.46	2.13	1.29	5.46	-2.13	5.43	-4.59	4.96	-8.07	0.72	
Emerging Markets Equity	10.26	18.64	18.64	7.78	4.11	18.64	-14.62	23.58	7.03	-8.73	-2.07	4.67	Jul-12
MSCI Emerging Markets	11.84	18.44	18.44	11.57	5.61	18.44	-14.58	37.28	11.19	-14.92	-2.19	4.82	Jul-12
Over/Under	-1.58	0.20	0.20	-3.79	-1.50	0.20	-0.04	-13.70	-4.16	6.19	0.12	-0.15	
Diversified Emerging Mkts MStar MF Rank	66	63	63	88	78	63	28	94	56	16	49	58	Jul-12
Long Biased	3.30	12.74	12.74	5.33	3.35	12.74	2.43	1.19	-2.99	4.04	3.62	4.56	Jul-12
HFRI Fund of Funds Composite Index	3.12	8.42	8.42	3.90	2.37	8.42	-4.02	7.77	0.51	-0.27	3.36	3.71	Jul-12
Over/Under	0.18	4.32	4.32	1.43	0.98	4.32	6.45	-6.58	-3.50	4.31	0.26	0.85	
S&P 500	9.07	31.49	31.49	15.27	11.70	31.49	-4.38	21.83	11.96	1.38	13.69	14.56	Jul-12
Opportunistic Credit	1.20	1.14	1.14	0.71	3.67	1.14	-5.68	7.08	14.52	2.35	2.32	3.98	Oct-13
HFRI ED: Distressed/Restructuring Index	-0.11	2.92	2.92	2.44	2.62	2.92	-1.70	6.25	15.15	-8.06	-1.39	2.56	Oct-13
Over/Under	1.31	-1.78	-1.78	-1.73	1.05	-1.78	-3.98	0.83	-0.63	10.41	3.71	1.42	
Real Estate Total	1.15	16.62	16.62	9.98	8.93	16.62	3.68	10.01	8.09	6.66	25.00	5.99	Apr-07
NCREIF-ODCE	1.51	5.34	5.34	7.10	8.97	5.34	8.35	7.62	8.76	15.02	12.48	5.91	Apr-07
Over/Under	-0.36	11.28	11.28	2.88	-0.04	11.28	-4.67	2.39	-0.67	-8.36	12.52	0.08	
FTSE NAREIT All REIT	0.55	28.07	28.07	10.30	8.45	28.07	-4.10	9.27	9.28	2.29	27.15	5.92	Apr-07
US Real Estate Equity Rank	17	99	99	38	21	99	1	11	32	7	94	69	Apr-07
Special Opportunities	13.38	10.54	10.54	7.06	-0.43	10.54	-11.43	25.32	-21.90	2.13	25.88	6.57	Jul-12
Russell 3000	9.10	31.02	31.02	14.57	11.24	31.02	-5.24	21.13	12.73	0.48	12.56	14.31	Jul-12
Over/Under	4.28	-20.48	-20.48	-7.51	-11.67	-20.48	-6.19	4.19	-34.63	1.65	13.32	-7.74	



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 during the 4Q2019 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 4Q2019 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 at more attractive valuations versus traditional pharmaceutical companies. As a result, they have structured a portfolio that is long-biased biotech 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. The portfolio performed exceptionally well versus its benchmark (+2,045 bps) in 2019, and as expected did particularly well during the 4Q19 biotech rally.
- **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 rebounded strongly in 2019 outpacing its benchmark by 272 basis points and placing in the top quartile of its peer universe. 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 Hyas Group research team met with Post 3Q19 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 December 31, 2019

Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Capital Preservation															
Sterling Core Bond	0.12	9.26	9.26	4.34	3.45	4.29	9.26	-0.35	4.33	3.75	0.54	5.99	-0.97	3.02	Aug-16
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	2.57	Aug-16
Excess Return	-0.06	0.54	0.54	0.31	0.40	0.54	0.54	-0.36	0.79	1.10	-0.01	0.02	1.05	0.45	
Intermediate Core Bond MStar MF Rank	50	25	25	17	11	18	25	53	34	40	29	35	35	16	Aug-16
Hotchkis & Wiley High Yield	2.31	9.77	9.77	4.69	4.96	7.24	9.77	-3.43	8.24	16.02	-4.30	1.09	8.71	4.28	Jun-15
BBgBarc US High Yield TR	2.61	14.32	14.32	6.37	6.13	7.57	14.32	-2.08	7.50	17.13	-4.47	2.45	7.44	5.78	Jun-15
Excess Return	-0.30	-4.55	-4.55	-1.68	-1.17	-0.33	-4.55	-1.35	0.74	-1.11	0.17	-1.36	1.27	-1.50	
High Yield Bond MStar MF Rank	65	85	85	86	70	27	85	73	17	20	61	65	20	80	Jun-15
Absolute Return															
Post Lmt'd Term High Yield	1.24	8.46	8.46	3.94	3.66	5.64	8.46	0.34	3.19	5.66	0.84	2.96	7.49	5.39	Jun-10
HFRI FOF: Conservative Index	1.91	6.60	6.60	3.24	2.39	2.81	6.60	-0.87	4.12	1.89	0.37	3.14	7.70	2.95	Jun-10
Excess Return	-0.67	1.86	1.86	0.70	1.27	2.83	1.86	1.21	-0.93	3.77	0.47	-0.18	-0.21	2.44	
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	3.38	Jun-10
Rimrock Low Volatility Offshore	0.70	2.38	2.38	2.92	2.33	4.95	2.38	2.01	4.40	4.90	-1.90	2.31	7.82	4.55	Jun-10
HFRI FOF: Conservative Index	1.91	6.60	6.60	3.24	2.39	2.81	6.60	-0.87	4.12	1.89	0.37	3.14	7.70	2.95	Jun-10
Excess Return	-1.21	-4.22	-4.22	-0.32	-0.06	2.14	-4.22	2.88	0.28	3.01	-2.27	-0.83	0.12	1.60	
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	3.38	Jun-10
Castine Partners II **	5.08	14.36	14.36	5.03	7.37	5.13	14.36	-7.34	9.34	15.57	6.57	7.48	6.16	5.97	Jun-11
HFRI FOF: Conservative Index	1.91	6.60	6.60	3.24	2.39	2.81	6.60	-0.87	4.12	1.89	0.37	3.14	7.70	2.68	Jun-11
Excess Return	3.17	7.76	7.76	1.79	4.98	2.32	7.76	-6.47	5.22	13.68	6.20	4.34	-1.54	3.29	
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	3.32	Jun-11
Polar Long Short Fund	2.70	8.49	8.49	4.26	4.21	3.75	8.49	0.24	4.20	6.60	1.73	3.46	5.60	4.51	Sep-11
HFRI FOF: Conservative Index	1.91	6.60	6.60	3.24	2.39	2.81	6.60	-0.87	4.12	1.89	0.37	3.14	7.70	3.26	Sep-11
Excess Return	0.79	1.89	1.89	1.02	1.82	0.94	1.89	1.11	0.08	4.71	1.36	0.32	-2.10	1.25	
BBgBarc US Aggregate TR	0.18	8.72	8.72	4.03	3.05	3.75	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	2.95	Sep-11

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

Spokane Employees' Retirement System

As of December 31, 2019

Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Domestic Equity															
Large Cap Equity															
Hotchkis & Wiley Diversified Value I	9.06	29.26	29.26	9.27	7.58	11.60	29.26	-14.74	18.39	19.94	-7.90	12.74	36.54	10.86	Sep-08
Russell 1000 Value	<u>7.41</u>	<u>26.54</u>	<u>26.54</u>	<u>9.68</u>	<u>8.29</u>	<u>11.80</u>	<u>26.54</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>9.73</u>	Sep-08
Excess Return	1.65	2.72	2.72	-0.41	-0.71	-0.20	2.72	-6.47	4.73	2.60	-4.07	-0.71	4.01	1.13	
S&P 500	9.07	31.49	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	11.84	Sep-08
Large Value MStar MF Rank	18	14	14	68	69	37	14	97	23	9	90	20	14	18	Sep-08
Fidelity S&P 500 Inst	9.06	31.47	31.47	15.25	11.69	13.54	31.47	-4.40	21.81	11.97	1.38	13.66	32.35	31.47	Jan-19
S&P 500	<u>9.07</u>	<u>31.49</u>	<u>31.49</u>	<u>15.27</u>	<u>11.70</u>	<u>13.56</u>	<u>31.49</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>31.49</u>	Jan-19
Excess Return	-0.01	-0.02	-0.02	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	0.01	0.00	-0.03	-0.04	-0.02	
Large Blend MStar MF Rank	31	25	25	18	11	13	25	22	32	27	24	21	45	25	Jan-19
MFS Large Cap Growth R6	8.55	37.81	37.81	22.84	15.36	15.73	37.81	2.68	30.99	2.55	7.49	8.88	34.81	7.34	Sep-19
Russell 1000 Growth	<u>10.62</u>	<u>36.39</u>	<u>36.39</u>	<u>20.49</u>	<u>14.63</u>	<u>15.22</u>	<u>36.39</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>10.63</u>	Sep-19
Excess Return	-2.07	1.42	1.42	2.35	0.73	0.51	1.42	4.19	0.78	-4.53	1.82	-4.17	1.33	-3.29	
S&P 500	9.07	31.49	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	11.11	Sep-19
Large Growth MStar MF Rank	71	10	10	10	9	8	10	13	30	54	21	68	43	77	Sep-19
Small/Mid Cap Equity															
Sterling Mid Cap Value	7.47	29.75	29.75	6.87	7.01	11.02	29.75	-17.67	14.27	16.97	-1.71	5.85	46.25	10.55	Sep-08
Russell MidCap Value	<u>6.36</u>	<u>27.06</u>	<u>27.06</u>	<u>8.10</u>	<u>7.61</u>	<u>12.41</u>	<u>27.06</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>10.73</u>	Sep-08
Excess Return	1.11	2.69	2.69	-1.23	-0.60	-1.39	2.69	-5.38	0.93	-3.03	3.07	-8.90	12.79	-0.18	
Russell MidCap	7.06	30.54	30.54	12.05	9.33	13.19	30.54	-9.06	18.52	13.80	-2.44	13.22	34.76	11.86	Sep-08
Mid-Cap Value MStar MF Rank	37	25	25	68	63	62	25	85	37	69	19	87	2	44	Sep-08
Fidelity Mid Cap Index	7.06	30.51	30.51	12.03	9.33	13.06	30.51	-9.05	18.47	13.86	-2.44	13.11	35.17	30.51	Jan-19
Russell MidCap	<u>7.06</u>	<u>30.54</u>	<u>30.54</u>	<u>12.05</u>	<u>9.33</u>	<u>13.19</u>	<u>30.54</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>30.54</u>	Jan-19
Excess Return	0.00	-0.03	-0.03	-0.02	0.00	-0.13	-0.03	0.01	-0.05	0.06	0.00	-0.11	0.41	-0.03	
Mid-Cap Blend MStar MF Rank	45	23	23	14	9	3	23	24	22	61	37	8	47	23	Jan-19

Spokane Employees' Retirement System

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Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Vanguard Mid Cap Growth	6.62	32.07	32.07	15.94	9.42	12.87	32.07	-3.29	22.01	0.44	0.21	10.86	34.15	10.25	Jun-14
Russell MidCap Growth	8.17	35.47	35.47	17.36	11.60	14.24	35.47	-4.75	25.27	7.33	-0.20	11.90	35.74	11.93	Jun-14
Excess Return	-1.55	-3.40	-3.40	-1.42	-2.18	-1.37	-3.40	1.46	-3.26	-6.89	0.41	-1.04	-1.59	-1.68	
Mid-Cap Growth MStar MF Rank	76	63	63	55	79	64	63	29	72	93	41	21	61	66	Jun-14
Frontier Phocas Small Cap Value I	7.89	24.63	24.63	3.60	5.57	10.62	24.63	-17.52	8.17	23.31	-4.35	7.19	45.63	10.55	Dec-11
Russell 2000 Value	8.49	22.39	22.39	4.77	6.99	10.56	22.39	-12.86	7.84	31.74	-7.47	4.22	34.52	11.19	Dec-11
Excess Return	-0.60	2.24	2.24	-1.17	-1.42	0.06	2.24	-4.66	0.33	-8.43	3.12	2.97	11.11	-0.64	
Russell 2000	9.94	25.52	25.52	8.59	8.23	11.83	25.52	-11.01	14.65	21.31	-4.41	4.89	38.82	12.18	Dec-11
Small Value MStar MF Rank	54	23	23	62	57	40	23	78	60	71	36	23	3	49	Dec-11
Fidelity Small Cap Index	10.01	25.71	25.71	8.77	8.43	12.33	25.71	-10.88	14.85	21.63	-4.24	5.19	37.80	25.71	Jan-19
Russell 2000	9.94	25.52	25.52	8.59	8.23	11.83	25.52	-11.01	14.65	21.31	-4.41	4.89	38.82	25.52	Jan-19
Excess Return	0.07	0.19	0.19	0.18	0.20	0.50	0.19	0.13	0.20	0.32	0.17	0.30	-1.02	0.19	
Small Blend MStar MF Rank	17	36	36	23	30	28	36	33	25	41	49	47	56	36	Jan-19
Champlain Small Cap	6.66	25.54	25.54	10.53	11.41	13.42	25.54	-3.03	10.90	27.93	-0.65	4.43	36.61	11.32	Sep-08
Russell 2000	9.94	25.52	25.52	8.59	8.23	11.83	25.52	-11.01	14.65	21.31	-4.41	4.89	38.82	9.84	Sep-08
Excess Return	-3.28	0.02	0.02	1.94	3.18	1.59	0.02	7.98	-3.75	6.62	3.76	-0.46	-2.21	1.48	
Russell 2000 Growth	11.39	28.48	28.48	12.49	9.34	13.01	28.48	-9.31	22.17	11.32	-1.38	5.60	43.30	11.24	Sep-08
Small Blend MStar MF Rank	78	38	38	5	2	5	38	1	65	8	11	60	68	10	Sep-08
Bridge City Small Growth	5.88	24.61	24.61	13.41	12.94	15.39	24.61	0.97	15.93	17.96	6.81	7.06	40.81	15.08	Dec-11
Russell 2000 Growth	11.39	28.48	28.48	12.49	9.34	13.01	28.48	-9.31	22.17	11.32	-1.38	5.60	43.30	13.27	Dec-11
Excess Return	-5.51	-3.87	-3.87	0.92	3.60	2.38	-3.87	10.28	-6.24	6.64	8.19	1.46	-2.49	1.81	
Russell 2000	9.94	25.52	25.52	8.59	8.23	11.83	25.52	-11.01	14.65	21.31	-4.41	4.89	38.82	12.22	Dec-11
Small Growth MStar MF Rank	88	73	73	62	14	8	73	15	77	20	4	15	61	16	Dec-11

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Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
International Equity															
Artisan International Value	9.21	24.20	24.20	9.23	6.30	9.15	24.20	-15.42	24.06	5.74	-1.49	-0.39	30.72	9.24	Sep-08
MSCI ACWI ex USA Value	8.21	15.71	15.71	6.88	3.65	3.64	15.71	-13.97	22.66	8.92	-10.06	-5.10	15.04	4.29	Sep-08
Excess Return	1.00	8.49	8.49	2.35	2.65	5.51	8.49	-1.45	1.40	-3.18	8.57	4.71	15.68	4.95	
MSCI ACWI ex USA	8.92	21.51	21.51	9.87	5.51	4.97	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	5.28	Sep-08
Foreign Large Value MStar MF Rank	35	1	1	7	10	1	1	23	41	29	45	2	1	1	Sep-08
EuroPacific Growth R6	10.09	27.40	27.40	12.45	7.41	6.73	27.40	-14.91	31.17	1.01	-0.48	-2.29	20.58	5.08	Jun-08
MSCI ACWI ex USA	8.92	21.51	21.51	9.87	5.51	4.97	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	2.92	Jun-08
Excess Return	1.17	5.89	5.89	2.58	1.90	1.76	5.89	-0.71	3.98	-3.49	5.18	1.58	5.29	2.16	
Foreign Large Blend MStar MF Rank	13	5	5	3	4	9	5	47	6	53	42	18	50	14	Jun-08
Victory Trivalent International Small Cap	9.83	27.88	27.88	11.85	8.49	10.66	27.88	-20.21	37.13	-0.70	8.20	-0.20	32.98	8.23	Aug-15
MSCI ACWI xUS Small (net)	11.01	22.42	22.42	9.65	7.04	6.92	22.42	-18.20	31.65	3.91	2.60	-4.03	19.73	8.09	Aug-15
Excess Return	-1.18	5.46	5.46	2.20	1.45	3.74	5.46	-2.01	5.48	-4.61	5.60	3.83	13.25	0.14	
MSCI ACWI ex USA	8.92	21.51	21.51	9.87	5.51	4.97	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	7.43	Aug-15
Foreign Small/Mid Growth MStar MF Rank	81	45	45	65	56	27	45	61	43	36	60	26	24	65	Aug-15
Vanguard Emerging Markets Stock Index Fund	11.32	20.31	20.31	10.53	5.01	4.59	20.31	-14.58	31.38	11.73	-15.35	0.60	6.16	5.13	Jul-18
MSCI Emerging Markets	11.84	18.44	18.44	11.57	5.61	3.68	18.44	-14.58	37.28	11.19	-14.92	-2.19	-2.60	4.24	Jul-18
Excess Return	-0.52	1.87	1.87	-1.04	-0.60	0.91	1.87	0.00	-5.90	0.54	-0.43	2.79	8.76	0.89	
Foreign Small/Mid Growth MStar MF Rank	54	99	99	81	94	99	99	25	96	1	99	12	99	36	Jul-18
ABS Emerging Markets Strategic Portfolio LP	10.12	19.97	19.97	--	--	--	19.97	-14.99	--	--	--	--	--	10.18	Sep-18
MSCI Emerging Markets	11.84	18.44	18.44	11.57	5.61	3.68	18.44	-14.58	37.28	11.19	-14.92	-2.19	-2.60	7.60	Sep-18
Excess Return	-1.72	1.53	1.53	--	--	--	1.53	-0.41	--	--	--	--	--	2.58	
Diversified Emerging Mkts MStar MF Rank	67	53	53	--	--	--	53	33	--	--	--	--	--	35	Sep-18

Spokane Employees' Retirement System

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Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Long Biased															
Weatherlow Offshore	4.25	13.23	13.23	5.05	3.51	4.71	13.23	-3.10	5.67	0.99	1.49	4.91	13.56	3.81	Mar-08
HFRI Fund of Funds Composite Index	<u>3.04</u>	<u>8.34</u>	<u>8.34</u>	<u>3.87</u>	<u>2.36</u>	<u>2.82</u>	<u>8.34</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>1.63</u>	Mar-08
Excess Return	1.21	4.89	4.89	1.18	1.15	1.89	4.89	0.92	-2.10	0.48	1.76	1.55	4.60	2.18	
S&P 500	9.07	31.49	31.49	15.27	11.70	13.56	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	10.22	Mar-08
Opportunistic Credit															
Beach Point Select Fund	3.04	11.48	11.48	6.18	7.06	--	11.48	0.28	7.08	14.52	2.58	2.35	15.93	6.71	Oct-13
HFRI ED: Distressed/Restructuring Index	<u>-0.50</u>	<u>2.52</u>	<u>2.52</u>	<u>2.30</u>	<u>2.54</u>	<u>4.45</u>	<u>2.52</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>2.49</u>	Oct-13
Excess Return	3.54	8.96	8.96	3.88	4.52		8.96	1.98	0.83	-0.63	10.64	3.74	1.88	4.22	
HFRX Distressed Securities Index	0.09	4.00	4.00	-0.99	0.65	0.95	4.00	-9.50	3.14	19.72	-11.14	0.42	5.37	0.69	Oct-13
Contrarian Capital Fund I, LP	-1.09	-9.89	-9.89	-6.15	-0.91	4.48	-9.89	-12.43	4.77	25.46	-7.89	0.45	17.00	-19.05	Sep-18
HFRI ED: Distressed/Restructuring Index	<u>-0.50</u>	<u>2.52</u>	<u>2.52</u>	<u>2.30</u>	<u>2.54</u>	<u>4.45</u>	<u>2.52</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>-2.66</u>	Sep-18
Excess Return	-0.59	-12.41	-12.41	-8.45	-3.45	0.03	-12.41	-10.73	-1.48	10.31	0.17	1.84	2.95	-16.39	
HFRX Distressed Securities Index	0.09	4.00	4.00	-0.99	0.65	0.95	4.00	-9.50	3.14	19.72	-11.14	0.42	5.37	-0.24	Sep-18
Real Estate															
SERS Principal Global Investors REIT	0.53	31.23	31.23	11.15	8.88	13.02	31.23	-4.13	9.16	6.67	4.45	32.55	4.17	7.06	Dec-06
FTSE NAREIT All REIT	<u>0.55</u>	<u>28.07</u>	<u>28.07</u>	<u>10.30</u>	<u>8.45</u>	<u>12.46</u>	<u>28.07</u>	<u>-4.10</u>	<u>9.27</u>	<u>9.28</u>	<u>2.29</u>	<u>27.15</u>	<u>3.21</u>	<u>5.97</u>	Dec-06
Excess Return	-0.02	3.16	3.16	0.85	0.43	0.56	3.16	-0.03	-0.11	-2.61	2.16	5.40	0.96	1.09	
US Real Estate Equity Rank	31	25	25	19	22	31	25	37	24	60	49	30	21	39	Dec-06
Prime Property LLC	1.50	6.14	6.14	7.61	9.30	11.94	6.14	8.03	8.67	9.31	14.53	14.08	16.17	7.25	Oct-17
NCREIF - ODCE NET	<u>1.29</u>	<u>4.41</u>	<u>4.41</u>	<u>6.14</u>	<u>7.98</u>	<u>10.39</u>	<u>4.41</u>	<u>7.36</u>	<u>6.66</u>	<u>7.79</u>	<u>13.91</u>	<u>11.46</u>	<u>12.90</u>	<u>6.07</u>	Oct-17
Excess Return	0.21	1.73	1.73	1.47	1.32	1.55	1.73	0.67	2.01	1.52	0.62	2.62	3.27	1.18	
US Real Estate Equity Rank	14	99	99	82	17	90	99	1	25	20	1	99	1	94	Oct-17

Spokane Employees' Retirement System

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Manager Performance

	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	Inception (%)	Inception Date
Special Opportunities															
OrbiMed Partners II	22.43	43.69	43.69	13.67	3.21	10.41	43.69	-18.43	25.30	-21.91	2.14	25.88	32.19	10.48	Dec-10
MSCI World Healthcare Index	<u>13.70</u>	<u>23.24</u>	<u>23.24</u>	<u>14.82</u>	<u>8.50</u>	<u>12.29</u>	<u>23.24</u>	<u>2.51</u>	<u>19.80</u>	<u>-6.81</u>	<u>6.60</u>	<u>18.10</u>	<u>36.27</u>	<u>13.45</u>	Dec-10
Excess Return	8.73	20.45	20.45	-1.15	-5.29	-1.88	20.45	-20.94	5.50	-15.10	-4.46	7.78	-4.08	-2.97	
NASDAQ Biotech Index	21.22	25.11	25.11	11.52	4.04	16.61	25.11	-8.86	21.63	-21.35	11.77	34.40	65.97	16.76	Dec-10
S&P Composite 1500 Health Care	14.21	20.87	20.87	16.46	10.69	15.17	20.87	6.71	22.47	-2.05	7.41	24.79	42.19	16.34	Dec-10
Contrarian Emerging Markets Fund LP	7.07	-4.09	-4.09	5.24	10.37	10.86	-4.09	0.96	20.36	22.72	14.48	-1.97	14.56	-3.29	Sep-18
HFRI Emerging Markets: Global Index	<u>4.61</u>	<u>9.48</u>	<u>9.48</u>	<u>4.69</u>	<u>3.52</u>	<u>2.80</u>	<u>9.48</u>	<u>-6.83</u>	<u>12.50</u>	<u>7.33</u>	<u>-3.47</u>	<u>-2.41</u>	<u>3.67</u>	<u>4.83</u>	Sep-18
Excess Return	2.46	-13.57	-13.57	0.55	6.85	8.06	-13.57	7.79	7.86	15.39	17.95	0.44	10.89	-8.12	
MSCI Emerging Markets	11.84	18.44	18.44	11.57	5.61	3.68	18.44	-14.58	37.28	11.19	-14.92	-2.19	-2.60	7.60	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 December 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Real Estate	Morrison Street Fund V, LP	2014	\$6,080,000	\$5,960,493	\$6,130,337	\$2,267,291	\$8,397,628	\$119,507	98.03%	11.70

Time and Dollar Weighted Returns

Morrison Street Fund V, LP	Q4-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs	5 Yrs
Time Weighted	0.81%	6.45%	6.45%	8.27%	11.43%	11.35%	11.45%
Money Weighted	0.81%	5.75%	5.75%	8.46%	12.83%	12.35%	12.57%
NCREIF Property Index	1.55%	6.42%	6.42%	6.57%	6.70%	7.02%	8.25%

Morrison Street Fund V, LP	2019	2018	2017	2016	Inception 6/30/14
Time Weighted	6.45%	10.12%	18.03%	11.10%	10.40%
Money Weighted	5.75%	9.97%	17.74%	11.31%	11.70%
NCREIF Property Index	6.42%	6.71%	6.98%	7.97%	8.57%

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 December 31, 2019

Account Type	Account	Vintage Year	Commitment	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commitment	Takedown (takedowns / commit)	IRR
Real Estate	Morrison Street Debt Opportunities Fd LP	2017	\$5,000,000	\$4,416,364	\$1,222,048	\$4,097,494	\$5,319,542	\$583,636	88.33%	7.97

Time and Dollar Weighted Returns

Morrison Street Debt Opportunities Fd LP	Q4-19	YTD	1 Yr	2 Yrs	3 Yrs
Time Weighted	2.63%	8.39%	8.39%	9.16%	7.57%
Money Weighted	2.63%	8.37%	8.37%	9.18%	7.97%
NCREIF - ODCE NET	1.29%	4.41%	4.41%	5.88%	6.14%

Morrison Street Debt Opportunities Fd LP	2019	2018	2017	2016	Inception 12/31/16
Time Weighted	8.39%	9.94%	4.47%		7.57%
Money Weighted	8.37%	9.92%	5.28%		7.97%
NCREIF - ODCE NET	4.41%	7.36%	6.66%	7.79%	6.14%

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	-0.95%	5.15%	-0.05%	1.49%	3.14%	2.44%	1.94%	3.17%
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%	2.75%
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

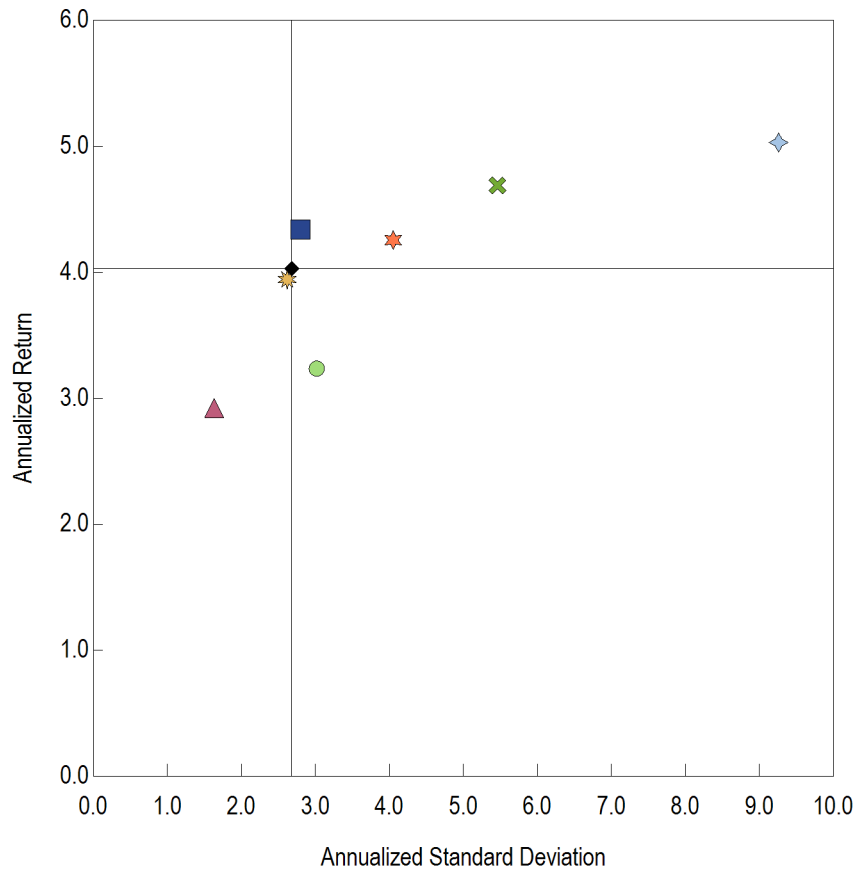
	Q3-19	YTD	1 Yr	2 Yrs	3 Yrs	4 Yrs
Orbimed Royalty Opportunities II						
Time Weighted	3.86%	16.04%	21.32%	17.73%	14.63%	15.89%
Money Weighted	3.79%	16.75%	21.80%	17.56%	15.42%	14.84%
HFRI Fund of Funds Composite Index	-0.95%	5.15%	-0.05%	1.49%	3.14%	2.44%
S&P 500	1.70%	20.55%	4.25%	10.87%	13.39%	13.90%

	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%	1.38%
S&P 500	-4.38%	21.83%	11.96%	1.38%	10.68%

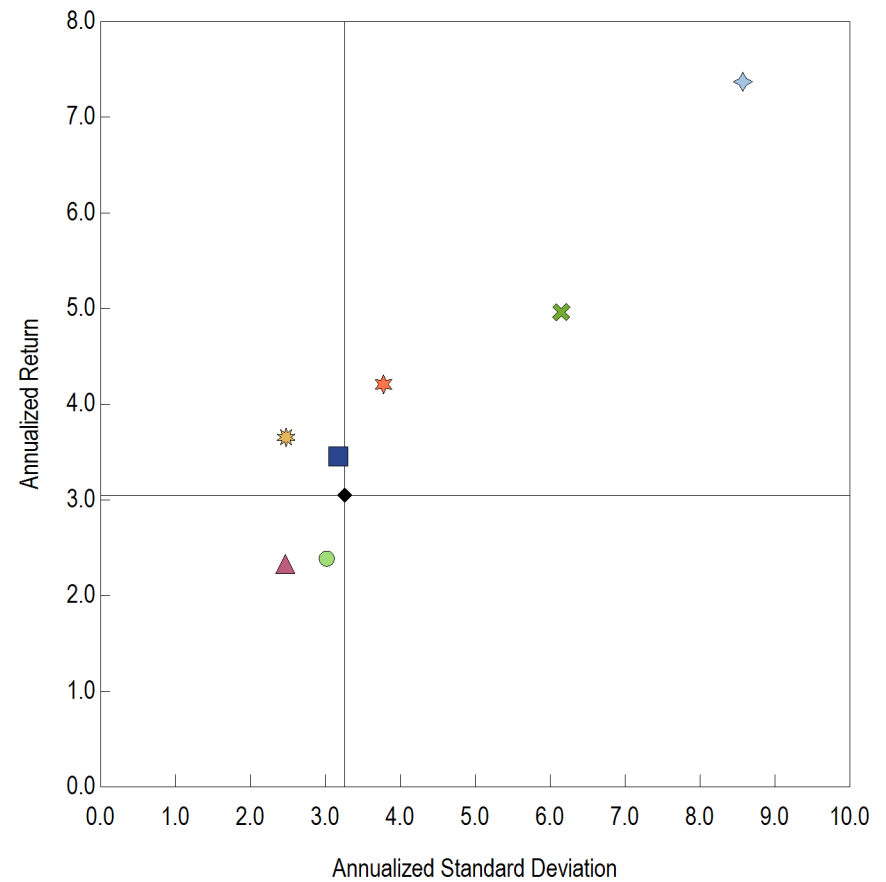
Time-Weighted Return - The current reporting system utilizes the Modified Dietz methodology for calculating time-weighted returns. This methodology accounts for inter-period cash flows by comparing the net gain in value with the average market value over the time interval. Average capital allows for 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 December 31, 2019



Annualized Return vs. Annualized Standard Deviation
5 Years Ending December 31, 2019

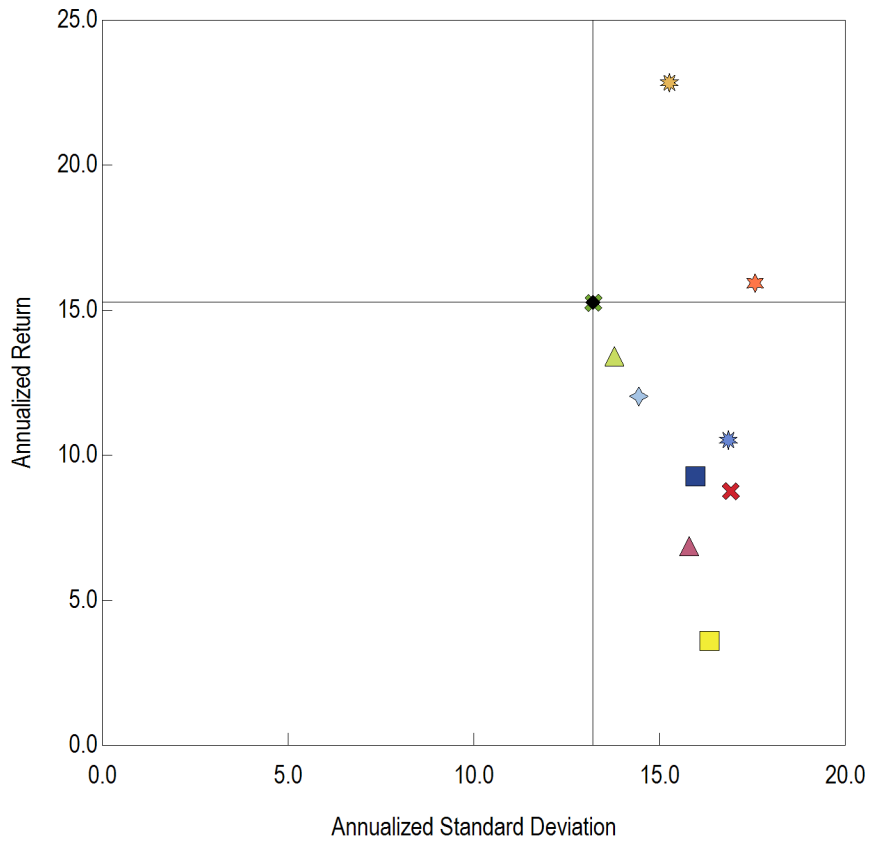


- Sterling Core Bond
- ✕ Hotchkis & Wiley High Yield
- ✱ Post Lmtd Term High Yield
- ▲ Rimrock Low Volatility Offshore
- ◆ Castine Partners II **
- ★ Polar Long Short Fund
- ◆ BBgBarc US Aggregate TR
- HFRI FOF: Conservative Index

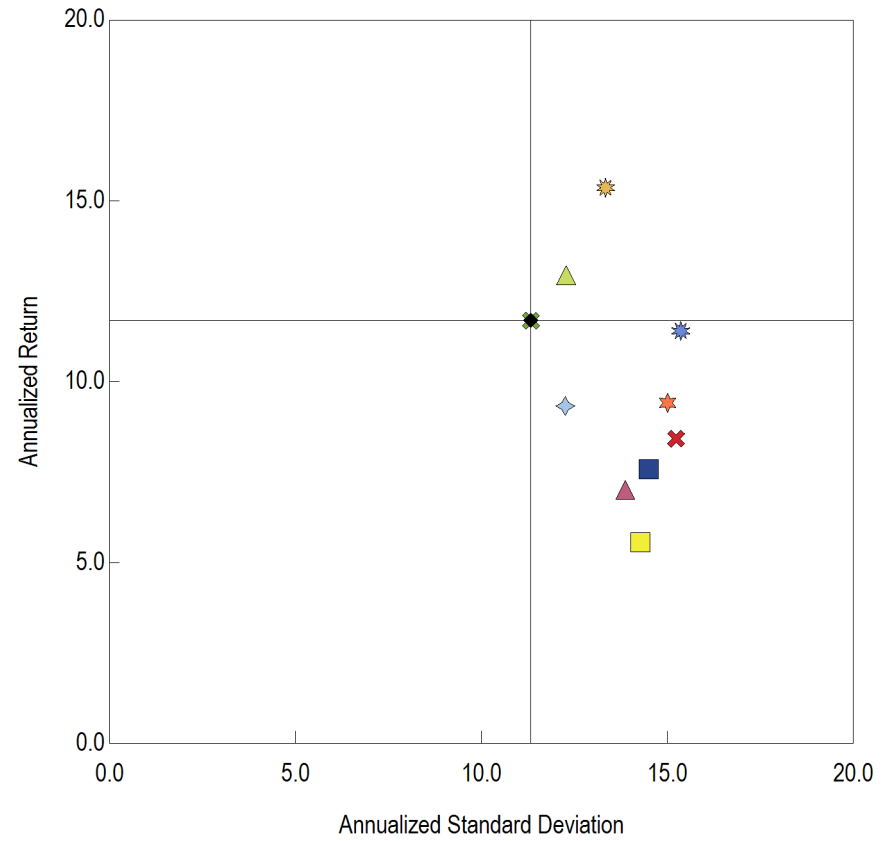
- Sterling Core Bond
- ✕ Hotchkis & Wiley High Yield
- ✱ Post Lmtd Term High Yield
- ▲ Rimrock Low Volatility Offshore
- ◆ Castine Partners II **
- ★ Polar Long Short Fund
- ◆ BBgBarc US Aggregate TR
- HFRI FOF: Conservative Index

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

Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2019



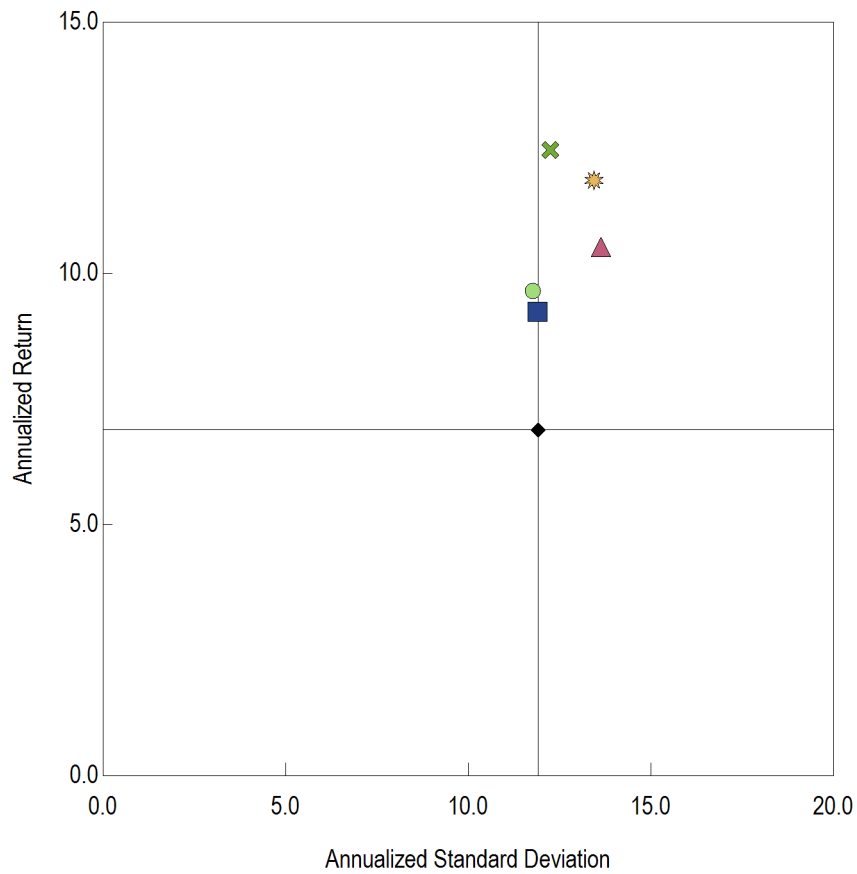
Annualized Return vs. Annualized Standard Deviation
5 Years Ending December 31, 2019



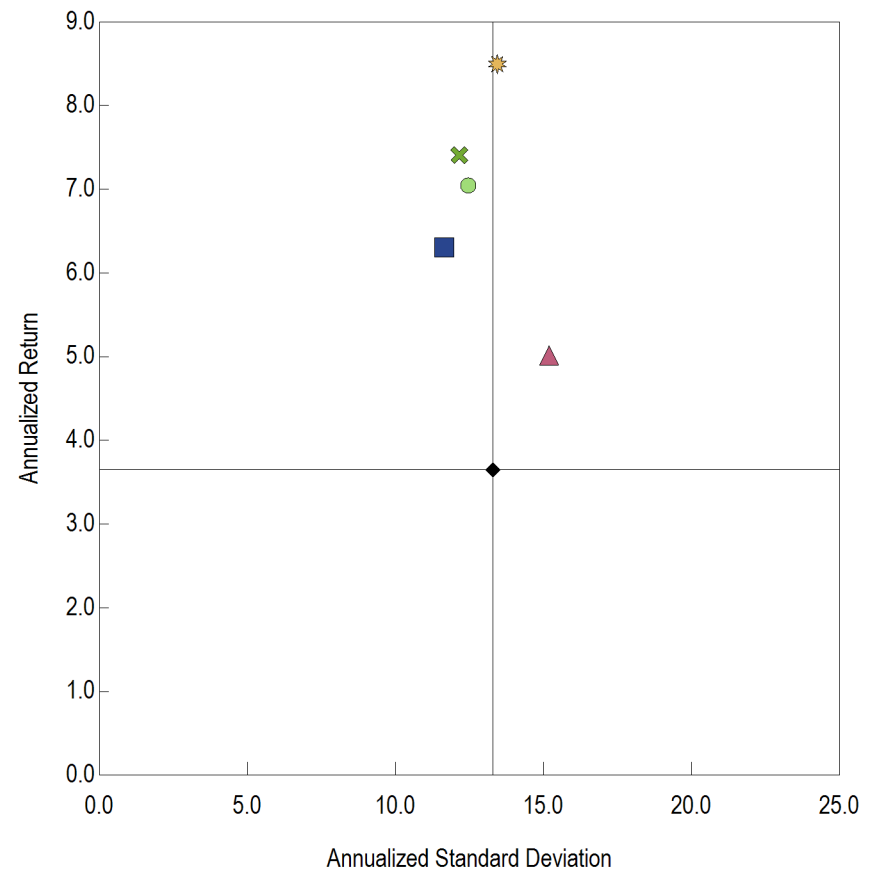
- Hotchkis & Wiley Diversified Value I
- ✕ Fidelity S&P 500 Inst
- ✱ MFS Large Cap Growth R6
- ▲ Sterling Mid Cap Value
- ◆ Fidelity Mid Cap Index
- ★ Vanguard Mid Cap Growth
- Frontier Phocas Small Cap Value I
- ✕ Fidelity Small Cap Index
- ✱ Champlain Small Cap
- ▲ Bridge City Small Growth
- ◆ S&P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

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

Annualized Return vs. Annualized Standard Deviation
3 Years Ending December 31, 2019



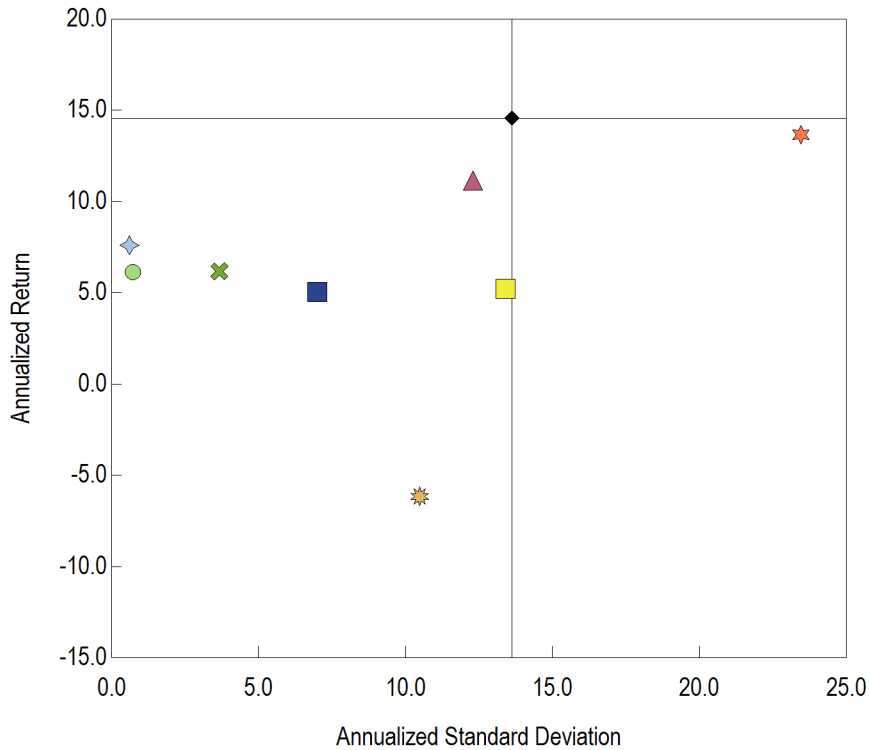
Annualized Return vs. Annualized Standard Deviation
5 Years Ending December 31, 2019



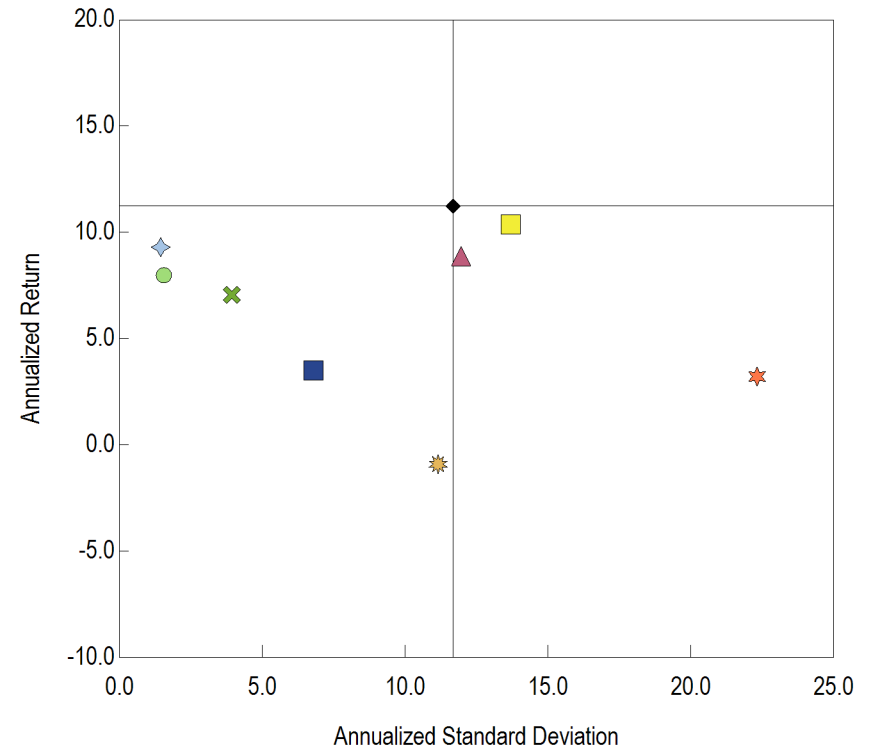
- Artisan International Value
- ✕ EuroPacific Growth R6
- ✱ Victory Trivalent International Small Cap
- ▲ Vanguard Emerging Markets Stock Index Fund
- ◆ MSCI ACWI ex USA Value
- MSCI ACWI xUS Small (net)

- 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 December 31, 2019



Annualized Return vs. Annualized Standard Deviation
5 Years Ending December 31, 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

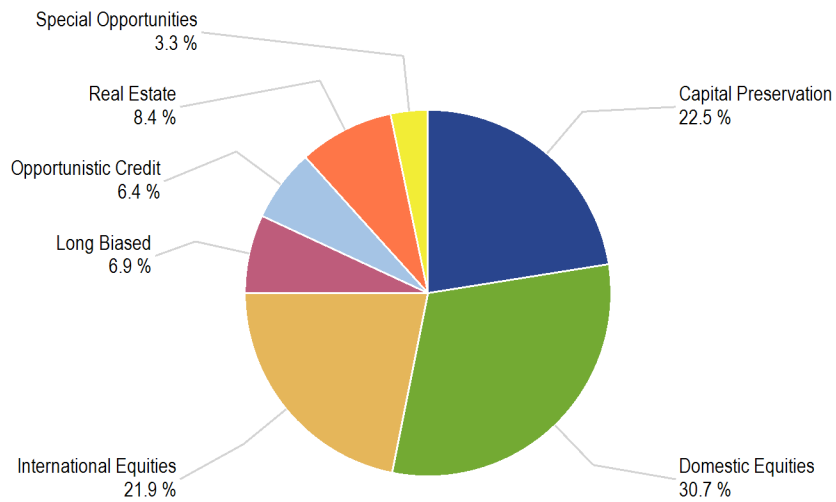
As of December 31, 2019

Investment Expense Analysis

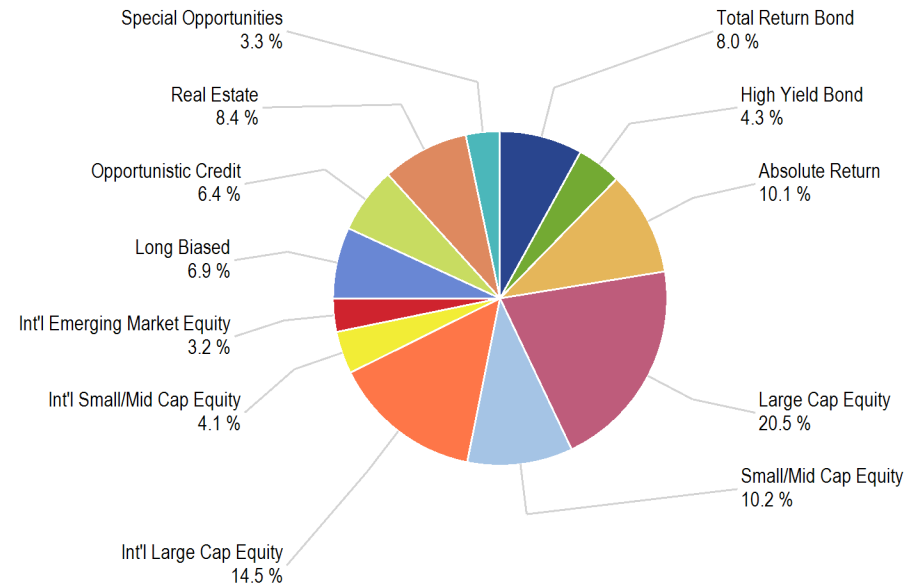
Name	Vehicle Type	Identifier	Benchmark	Universe	Market Value	% of Portfolio	Expense Ratio	Median Expense Ratio	Difference Fund v. Median
Artisan Int'l Value	Mutual Fund	APHKX	MSCI ACWI ex USA Value	Foreign Value MStar MF	\$23,089,221	11.0%	1.02%	0.95%	0.08%
Bridge City Small Growth	Separate Account		Russell 2000 Growth	Small Growth MStar MF	\$6,086,784	2.9%	0.35%	0.99%	-0.64%
Champlain Small Cap	Commingled Fund		Russell 2000 Growth	Small Growth MStar MF	\$6,903,627	3.3%	1.00%	0.99%	0.01%
EuroPacific Growth R6	Mutual Fund	RERGX	MSCI ACWI ex USA	Foreign MStar MF	\$23,108,356	11.0%	0.49%	0.90%	-0.41%
Fidelity Instl Govt Money Market	Mutual Fund	FIGXX	91 Day T-Bills	Money Market - Taxable MStar MF	\$146,265	0.1%	0.18%	0.21%	-0.03%
Fidelity Mid Cap Index	Mutual Fund	FSMDX	Russell MidCap	Mid Cap MStar MF	\$4,614,773	2.2%	0.03%	0.88%	-0.86%
Fidelity S&P 500	Mutual Fund	FXAIX	S&P 500	Large Cap MStar MF	\$30,899,969	14.7%	0.02%	0.73%	-0.72%
Fidelity Small Cap Index	Mutual Fund	FSSNX	Russell 2000	Small Cap MStar MF	\$965,452	0.5%	0.03%	0.98%	-0.96%
Frontier Sm Cap Value I	Mutual Fund	FPSVX	Russell 2000 Value	Small Value MStar MF	\$4,145,325	2.0%	0.96%	0.99%	-0.03%
Hotchkis & Wiley Div Value I	Mutual Fund	HWCIX	Russell 1000 Value	Large Value MStar MF	\$17,113,653	8.2%	0.80%	0.72%	0.08%
Hotchkis & Wiley High Yield	Mutual Fund	HWHZX	BBgBarc US High Yield TR	High Yield Bond MStar MF	\$13,686,339	6.5%	0.60%	0.72%	-0.12%
MFS Growth Fund CI R6	Mutual Fund	MFEKX	Russell 1000 Growth	Large Growth MStar MF	\$17,203,639	8.2%	0.58%	0.78%	-0.20%
Principal Global Investors REIT	Separate Account		FTSE NAREIT All REIT	Real Estate MStar MF	\$12,677,417	6.0%	0.75%	0.90%	-0.15%
Sterling Core Bond	Separate Account		BBgBarc US Aggregate TR	Intermediate Core Bond MStar MF	\$25,385,134	12.1%	0.25%	0.45%	-0.20%
Sterling Mid Cap Value	Separate Account		Russell MidCap Value	Mid-Cap Value MStar MF	\$5,002,792	2.4%	0.75%	0.86%	-0.11%
Vanguard Emerging Markets Stock Index Fd	Mutual Fund	VEMAX	MSCI Emerging Markets	Diversified Emerging Mkts MStar MF	\$1,281,875	0.6%	0.14%	1.15%	-1.01%
Vanguard Mid Cap Growth	Mutual Fund	VMGRX	Russell MidCap Growth	Mid-Cap Growth MStar MF	\$4,604,542	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	\$13,008,016	6.2%	0.97%	1.08%	-0.11%
Total					\$209,923,180	100.0%	0.55%		

Section 3

Current Allocation



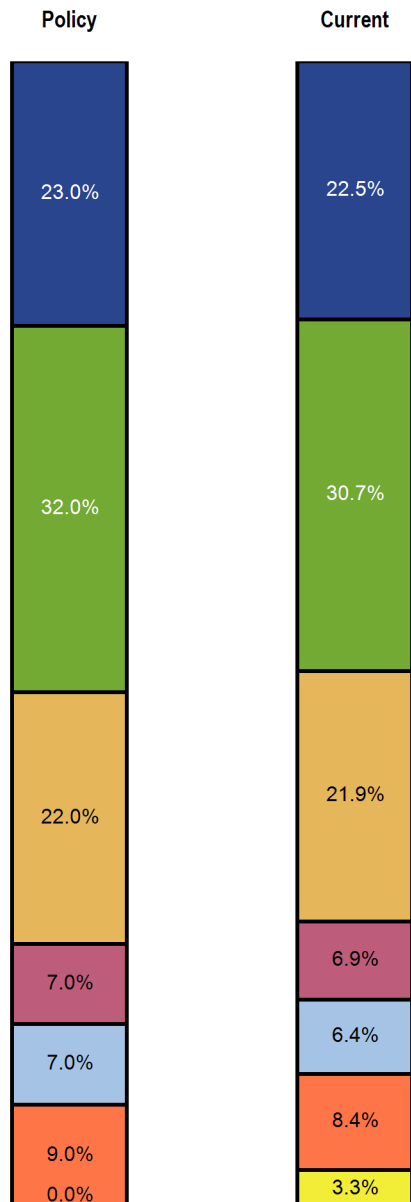
Current Implementation Allocation



Spokane Employees' Retirement System

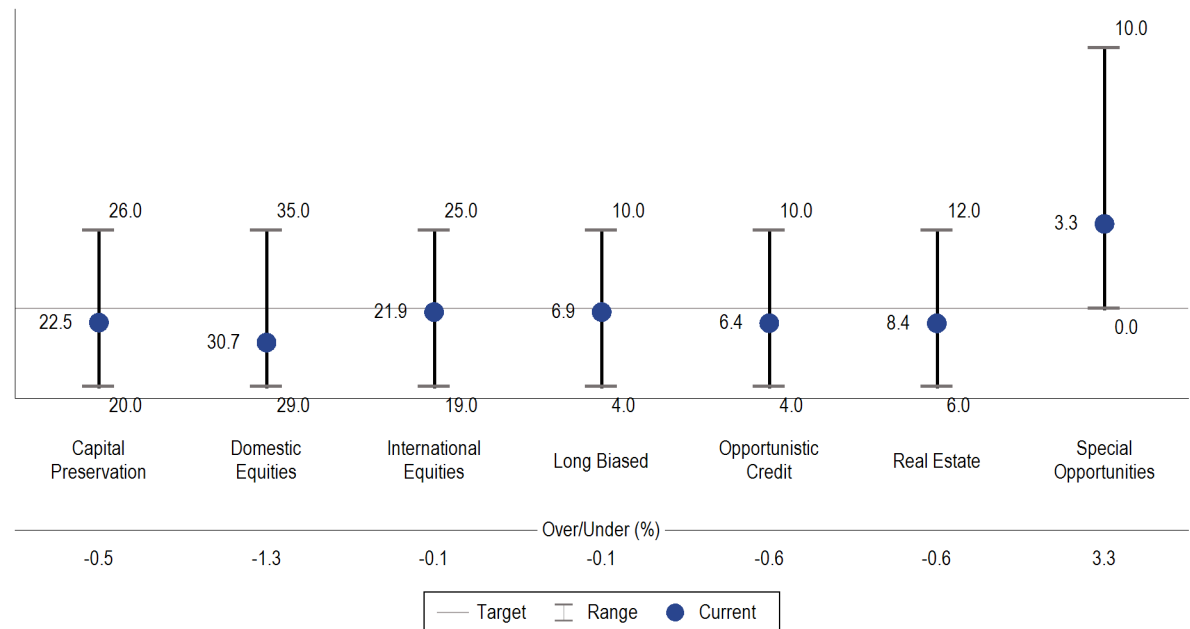
As of December 31, 2019

Asset Allocation vs. Target



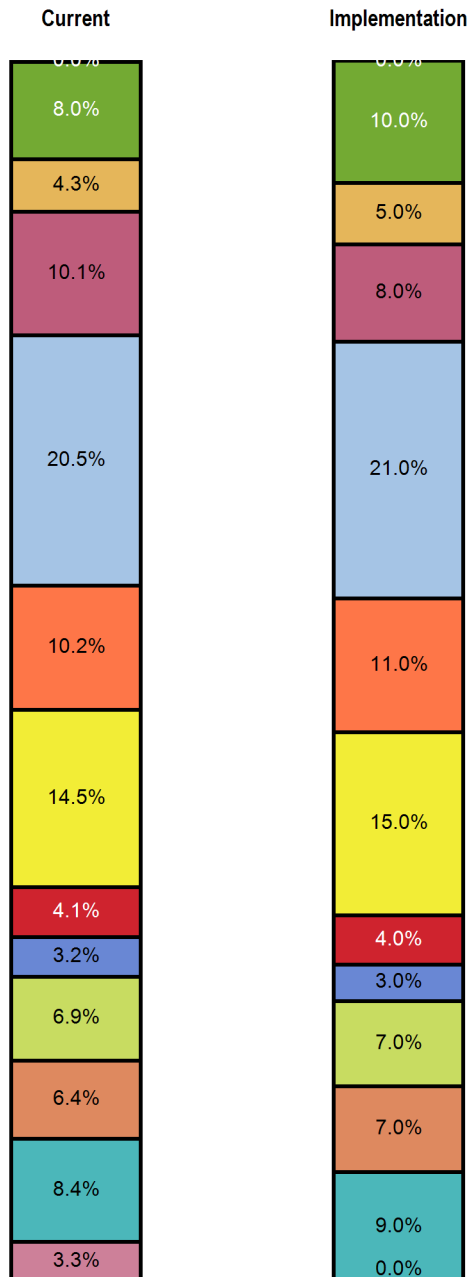
	Inv Pol Stmt	%	Inv Pol Stmt Range	Current	%	Difference	%
Capital Preservation	\$73,099,051	23.0%	20.0% - 26.0%	\$71,380,948	22.5%	-\$1,718,103	-0.5%
Domestic Equities	\$101,703,027	32.0%	29.0% - 35.0%	\$97,540,556	30.7%	-\$4,162,471	-1.3%
International Equities	\$69,920,831	22.0%	19.0% - 25.0%	\$69,488,754	21.9%	-\$432,077	-0.1%
Long Biased	\$22,247,537	7.0%	4.0% - 10.0%	\$21,810,682	6.9%	-\$436,855	-0.1%
Opportunistic Credit	\$22,247,537	7.0%	4.0% - 10.0%	\$20,461,934	6.4%	-\$1,785,603	-0.6%
Real Estate	\$28,603,976	9.0%	6.0% - 12.0%	\$26,796,758	8.4%	-\$1,807,218	-0.6%
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$10,342,328	3.3%	\$10,342,328	3.3%
Total	\$317,821,959	100.0%		\$317,821,959	100.0%		

Actual vs. Target



Spokane Employees' Retirement System

As of December 31, 2019



Asset Allocation on December 31, 2019

	Actual	Actual	Target
Cash	\$146,265	0.0%	0.0%
Total Return Bond	\$25,385,134	8.0%	10.0%
High Yield Bond	\$13,686,339	4.3%	5.0%
Absolute Return	\$32,163,209	10.1%	8.0%
Large Cap Equity	\$65,217,261	20.5%	21.0%
Small/Mid Cap Equity	\$32,323,295	10.2%	11.0%
Int'l Large Cap Equity	\$46,197,577	14.5%	15.0%
Int'l Small/Mid Cap Equity	\$13,008,016	4.1%	4.0%
Int'l Emerging Market Equity	\$10,283,161	3.2%	3.0%
Long Biased	\$21,810,682	6.9%	7.0%
Opportunistic Credit	\$20,461,934	6.4%	7.0%
Real Estate	\$26,796,758	8.4%	9.0%
Special Opportunities	\$10,342,328	3.3%	0.0%
Total	\$317,821,959	100.0%	100.0%

Spokane Employees' Retirement System

As of December 31, 2019

Asset Allocation vs. Target

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Capital Preservation	\$73,099,051	23.0%	20.0% - 26.0%	\$71,380,948	22.5%	-\$1,718,103	-0.5%	Yes
Cash	\$0	0.0%	0.0% - 2.0%	\$146,265	0.0%	\$146,265	0.0%	Yes
Fidelity Instl Govt Money Market				\$146,265	0.0%			
Total Return Bond	\$31,782,196	10.0%	8.0% - 12.0%	\$25,385,134	8.0%	-\$6,397,061	-2.0%	No
Sterling Core Bond				\$25,385,134	8.0%			
High Yield Bond	\$15,891,098	5.0%	3.0% - 7.0%	\$13,686,339	4.3%	-\$2,204,759	-0.7%	Yes
Hotchkis & Wiley High Yield				\$13,686,339	4.3%			
Absolute Return	\$25,425,757	8.0%	6.0% - 10.0%	\$32,163,209	10.1%	\$6,737,452	2.1%	No
Polar Long/Short Fund				\$7,341,024	2.3%			
Post Lmted Term High Yield				\$6,510,979	2.0%			
Rimrock Low Volatility Offshore				\$10,082,676	3.2%			
Castine Partners II				\$8,228,531	2.6%			
Domestic Equities	\$101,703,027	32.0%	29.0% - 35.0%	\$97,540,556	30.7%	-\$4,162,471	-1.3%	Yes
Large Cap Equity	\$66,742,611	21.0%	19.0% - 23.0%	\$65,217,261	20.5%	-\$1,525,351	-0.5%	Yes
Hotchkis & Wiley Div Value I				\$17,113,653	5.4%			
Fidelity S&P 500				\$30,899,969	9.7%			
MFS Growth Fund CI R6				\$17,203,639	5.4%			
Small/Mid Cap Equity	\$34,960,416	11.0%	9.0% - 13.0%	\$32,323,295	10.2%	-\$2,637,120	-0.8%	Yes
Sterling Mid Cap Value				\$5,002,792	1.6%			

Spokane Employees' Retirement System

As of December 31, 2019

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Fidelity Mid Cap Index				\$4,614,773	1.5%			
Vanguard Mid Cap Growth				\$4,604,542	1.4%			
Frontier Sm Cap Value I				\$4,145,325	1.3%			
Fidelity Small Cap Index				\$965,452	0.3%			
Bridge City Small Growth				\$6,086,784	1.9%			
Champlain Small Cap				\$6,903,627	2.2%			
International Equities	\$69,920,831	22.0%	19.0% - 25.0%	\$69,488,754	21.9%	-\$432,077	-0.1%	Yes
Int'l Large Cap Equity	\$47,673,294	15.0%	13.0% - 17.0%	\$46,197,577	14.5%	-\$1,475,717	-0.5%	Yes
EuroPacific Growth R6				\$23,108,356	7.3%			
Artisan Int'l Value				\$23,089,221	7.3%			
Int'l Small/Mid Cap Equity	\$12,712,878	4.0%	2.0% - 6.0%	\$13,008,016	4.1%	\$295,138	0.1%	Yes
Victory Trivalent International Small Cap				\$13,008,016	4.1%			
Int'l Emerging Market Equity	\$9,534,659	3.0%	1.0% - 5.0%	\$10,283,161	3.2%	\$748,502	0.2%	Yes
Vanguard Emerging Markets Stock Index Fd				\$1,281,875	0.4%			
ABS Emerging Markets Strategic				\$9,001,286	2.8%			
Long Biased	\$22,247,537	7.0%	4.0% - 10.0%	\$21,810,682	6.9%	-\$436,855	-0.1%	Yes
Long Biased	\$22,247,537	7.0%	4.0% - 10.0%	\$21,810,682	6.9%	-\$436,855	-0.1%	Yes
Weatherlow Offshore				\$16,962,237	5.3%			
OrbiMed Royalty Opps II				\$2,546,924	0.8%			
OrbiMed Royalty Opportunities				\$2,301,521	0.7%			

Spokane Employees' Retirement System

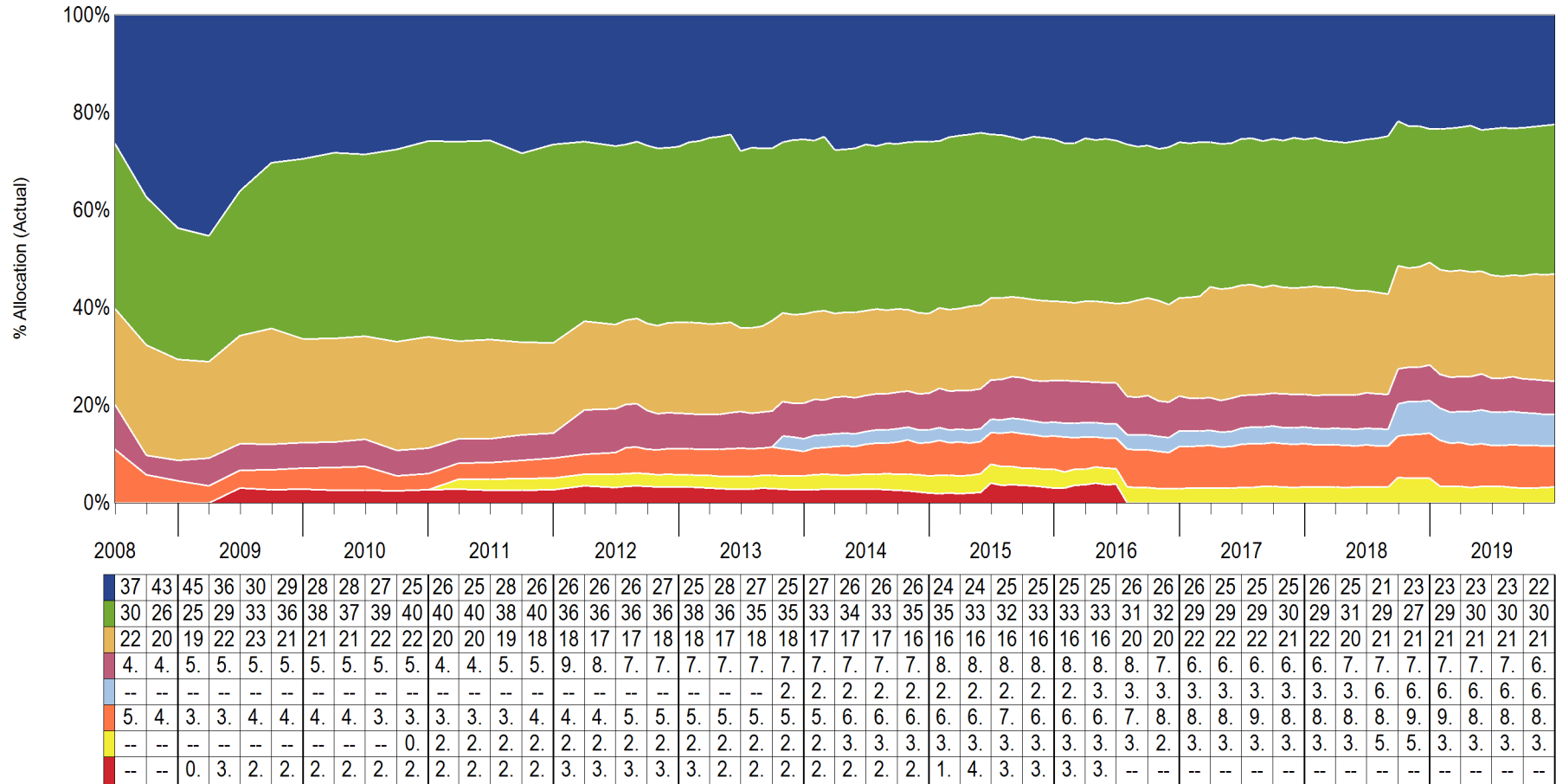
As of December 31, 2019

	Target Allocation	%	Target Allocation Range	Current	%	Difference	%	Within Range
Opportunistic Credit	\$22,247,537	7.0%	4.0% - 10.0%	\$20,461,934	6.4%	-\$1,785,603	-0.6%	Yes
Opportunistic Credit	\$22,247,537	7.0%	4.0% - 10.0%	\$20,461,934	6.4%	-\$1,785,603	-0.6%	Yes
Beach Point Select Fund LP				\$11,506,888	3.6%			
Contrarian Capital Fund I LP				\$8,955,046	2.8%			
Real Estate	\$28,603,976	9.0%	6.0% - 12.0%	\$26,796,758	8.4%	-\$1,807,218	-0.6%	Yes
Real Estate	\$28,603,976	9.0%	6.0% - 12.0%	\$26,796,758	8.4%	-\$1,807,218	-0.6%	Yes
Principal Global Investors REIT				\$12,677,417	4.0%			
Metropolitan Realty V				\$163,374	0.1%			
Morrison Street Fund V				\$2,286,959	0.7%			
Morrison Street Debt Opportunities Fund LP				\$4,192,718	1.3%			
Morgan Stanley Prime Property Fund				\$7,476,289	2.4%			
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$10,342,328	3.3%	\$10,342,328	3.3%	Yes
Special Opportunities	\$0	0.0%	0.0% - 10.0%	\$10,342,328	3.3%	\$10,342,328	3.3%	Yes
Orbimed Partners II				\$4,589,792	1.4%			
Contrarian Emerging Markets				\$5,752,536	1.8%			
Total	\$317,821,959	100.0%		\$317,821,959	100.0%			

Spokane Employees' Retirement System

As of December 31, 2019

Asset Allocation History
11 Years 6 Months Ending December 31, 2019

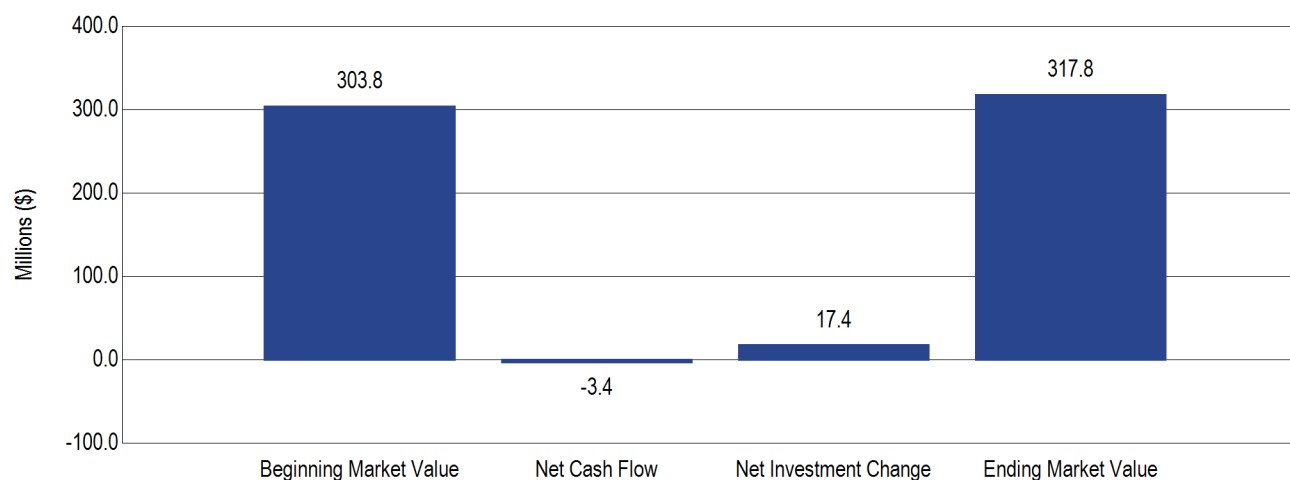


■ Capital Preservation
 ■ International Equities
 ■ Long Biased
 ■ Opportunistic Credit
 ■ Real Estate
 ■ Special Opportunities
 ■ Commodities
■ Domestic Equities

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Section 4

Change in Market Value
From October 01, 2019 To December 31, 2019



Cash Flow Summary

	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Ending Market Value (\$)
ABS Emerging Markets Strategic	8,174,486.77	0.00	0.00	0.00	826,799.25	9,001,286.02
Artisan Int'l Value	21,601,074.17	0.00	-500,000.00	-500,000.00	1,988,146.68	23,089,220.85
Beach Point Select Fund LP	11,167,193.00	0.00	0.00	0.00	339,695.00	11,506,888.00
Bridge City Small Growth	5,749,237.21	0.00	0.00	0.00	337,547.24	6,086,784.45
Castine Partners II	7,833,443.56	0.00	0.00	0.00	395,086.95	8,228,530.51
Champlain Small Cap	6,467,335.03	0.00	0.00	0.00	436,292.16	6,903,627.19
Contrarian Capital Fund I LP	9,052,975.71	0.00	0.00	0.00	-97,929.92	8,955,045.79
Contrarian Emerging Markets	5,372,725.20	0.00	0.00	0.00	379,810.63	5,752,535.83
EuroPacific Growth R6	21,490,206.80	0.00	-550,000.00	-550,000.00	2,168,149.58	23,108,356.38
Fidelity Instl Govt Money Market	128,450.39	8,069,792.43	-8,054,389.31	15,403.12	2,411.85	146,265.36
Fidelity Mid Cap Index	4,310,262.53	0.00	0.00	0.00	304,510.66	4,614,773.19
Fidelity S&P 500	28,710,260.85	0.00	-400,000.00	-400,000.00	2,589,708.30	30,899,969.15
Fidelity Small Cap Index	877,602.00	0.00	0.00	0.00	87,850.31	965,452.31

Spokane Employees' Retirement System

As of December 31, 2019

	Beginning Market Value (\$)	Contributions (\$)	Withdrawals (\$)	Net Cash Flow (\$)	Net Investment Change (\$)	Ending Market Value (\$)
Frontier Sm Cap Value I	3,842,293.17	0.00	0.00	0.00	303,031.69	4,145,324.86
Hotchkis & Wiley Div Value I	16,113,166.63	0.00	-450,000.00	-450,000.00	1,450,486.01	17,113,652.64
Hotchkis & Wiley High Yield	13,377,262.95	0.00	0.00	0.00	309,076.04	13,686,338.99
Metropolitan Realty V	163,374.20	0.00	0.00	0.00	0.00	163,374.20
MFS Growth Fund CI R6	17,060,762.73	0.00	-1,250,000.00	-1,250,000.00	1,392,876.08	17,203,638.81
Morgan Stanley Prime Property Fund	7,436,096.14	0.00	-73,410.62	-73,410.62	113,603.91	7,476,289.43
Morrison Street Debt Opportunities Fund LP	4,183,821.00	0.00	-98,474.08	-98,474.08	107,371.08	4,192,718.00
Morrison Street Fund V	2,313,907.00	0.00	-45,246.06	-45,246.06	18,298.06	2,286,959.00
Orbimed Partners II	3,748,946.00	0.00	0.00	0.00	840,846.00	4,589,792.00
OrbiMed Royalty Opportunities	2,313,986.00	0.00	-12,465.25	-12,465.25	0.25	2,301,521.00
OrbiMed Royalty Opps II	2,601,037.00	0.00	-54,112.55	-54,112.55	-0.45	2,546,924.00
Polar Long/Short Fund	7,111,512.20	0.00	0.00	0.00	229,511.79	7,341,023.99
Post Lmted Term High Yield	6,432,954.09	0.00	0.00	0.00	78,024.74	6,510,978.83
Principal Global Investors REIT	12,609,209.65	0.00	0.00	0.00	68,207.61	12,677,417.26
Rimrock Low Volatility Offshore	10,018,764.88	0.00	0.00	0.00	63,910.83	10,082,675.71
Sterling Core Bond	25,318,563.26	0.00	0.00	0.00	66,571.19	25,385,134.45
Sterling Mid Cap Value	4,640,568.36	0.00	0.00	0.00	362,223.47	5,002,791.83
Vanguard Emerging Markets Stock Index Fd	1,151,532.61	0.00	0.00	0.00	130,342.15	1,281,874.76
Vanguard Mid Cap Growth	4,318,789.60	0.00	0.00	0.00	285,751.90	4,604,541.50
Victory Trivalent International Small Cap	11,843,655.88	0.00	0.00	0.00	1,164,360.30	13,008,016.18
Weatherlow Offshore	16,263,741.16	0.00	0.00	0.00	698,495.50	16,962,236.66
Total	303,799,197.73	8,069,792.43	-11,488,097.87	-3,418,305.44	17,441,066.84	317,821,959.13

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.

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