

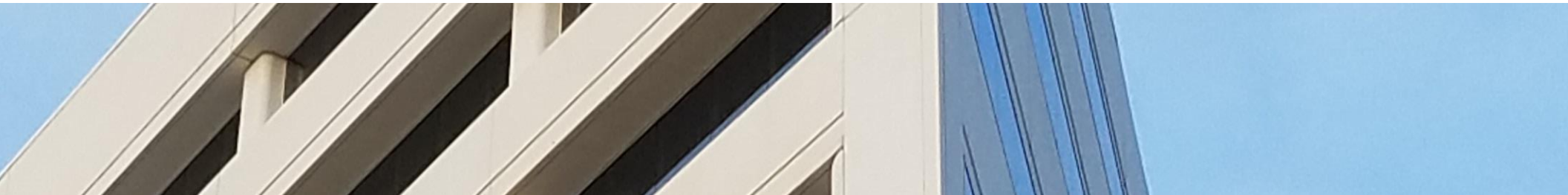


Prepared for



WILSHIRE ASSOCIATES

Wilshire Consulting

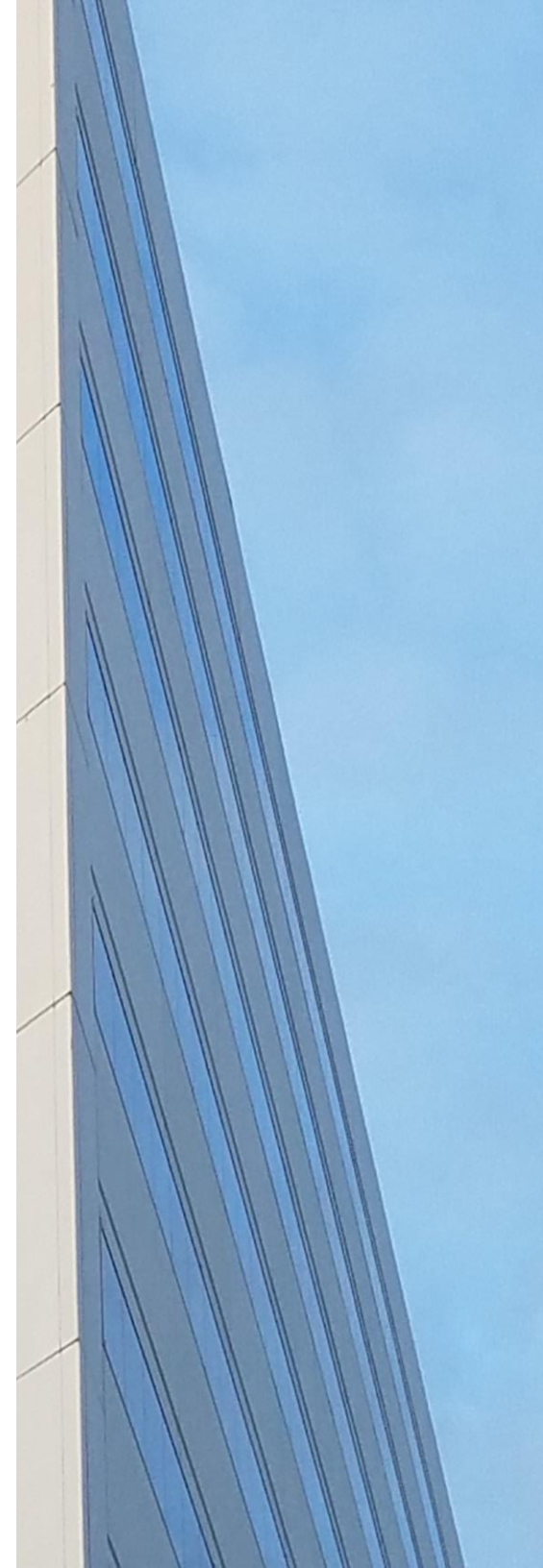


Jacksonville Police & Fire Pension Fund
Financial Investment & Advisory Committee (FIAC)

November 15, 2019

Wilshire Consulting
CONTENTS

- Capital Market Review
- FY 2019 Fourth Quarter Executive Summary Report





MARKET ENVIRONMENT

MARKET COMMENTARY

U.S. Equity

The U.S. stock market was up 1.2% for the third quarter of 2019 and 20.1% for the year. Trade talks with China continue to be an important unknown while the Federal Reserve's possible continued monetary easing has added to the uncertainty surrounding markets. Investors are encouraged, however, as the U.S. economy remains sound, especially compared to global economic conditions.

The 10-year U.S. Treasury yield has fallen a full 1% this year. The problem for investors in search of yield is the U.S. currently offers some of the best rates in the developed world. Also, some of the world's major economies such as France and Germany are experiencing negative rates both in the short and long-term portion of the curve. A recent study by the Bank for International Settlements shows there is a record \$17 trillion in global debt that carries a negative yield, equal to approximately 20% of global GDP.

Non-U.S. Equity

Equity markets outside of the U.S. continue to enjoy a strong 2019. Germany's manufacturing recession worsened during the quarter to levels last seen during the global financial crisis. News out of Britain is more encouraging although the looming Brexit deadline of October 31 is rapidly approaching without an exit deal. Emerging Markets were down, in aggregate, largely due to a negative quarter for China, which comprises nearly one-third of the index.

Fixed Income

The U.S. Treasury yield curve fell across all maturities with the biggest decreases occurring in the long end of the curve. The Federal Open Market Committee decreased its overnight rate by 0.25% at both the July and September meetings. Credit spreads were little changed by quarter-end within both the investment grade and high yield markets.

ASSET CLASS PERFORMANCE

ASSET CLASS RETURNS - BEST TO WORST						ANNUALIZED 5-YEAR AS OF 9/2019
2014	2015	2016	2017	2018	2019 YTD	
REITs 31.8%	REITs 4.2%	MLPs 18.3%	Emrg Mrkts 37.7%	T-Bills 1.9%	REITs 27.2%	U.S. Equity 10.6%
U.S. Equity 12.7%	U.S. Equity 0.7%	High Yield 17.1%	Developed 25.6%	Core Bond 0.0%	U.S. Equity 20.1%	REITs 10.2%
Core Bond 6.0%	Core Bond 0.6%	U.S. Equity 13.4%	U.S. Equity 21.0%	U.S. TIPS -1.3%	Developed 13.4%	High Yield 5.4%
MLPs 4.8%	T-Bills 0.1%	Commodities 11.8%	High Yield 7.5%	High Yield -2.1%	High Yield 11.4%	Developed 3.8%
U.S. TIPS 3.6%	Developed -0.4%	Emrg Mrkts 11.6%	REITs 4.2%	REITs -4.8%	MLPs 11.1%	Core Bond 3.4%
High Yield 2.5%	U.S. TIPS -1.4%	REITs 7.2%	Core Bond 3.6%	U.S. Equity -5.3%	Core Bond 8.5%	Emrg Mrkts 2.7%
T-Bills 0.0%	High Yield -4.5%	U.S. TIPS 4.7%	U.S. TIPS 3.0%	Commodities -11.2%	U.S. TIPS 7.6%	U.S. TIPS 2.4%
Emrg Mrkts -1.8%	Emrg Mrkts -14.6%	Core Bond 2.6%	Commodities 1.7%	MLPs -12.4%	Emrg Mrkts 6.2%	T-Bills 1.0%
Developed -4.5%	Commodities -24.7%	Developed 1.5%	T-Bills 0.8%	Developed -13.4%	Commodities 3.1%	Commodities -7.2%
Commodities -17.0%	MLPs -32.6%	T-Bills 0.3%	MLPs -6.5%	Emrg Mrkts -14.2%	T-Bills 1.8%	MLPs -8.6%

Data sources: Wilshire Compass

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

SEPTEMBER 2019 ASSET CLASS ASSUMPTIONS

	EQUITY						FIXED INCOME						REAL ASSETS					
	US Stock	Dev	Emg Stock	Global ex-US Stock	Global Stock	Private Equity	Cash	Core Bond	LT		High Yield	Dev ex-US Bond (Hdg)	Real Estate			Cmnty	Real Assets	US CPI
		ex-US Stock							Core Bond	Core Bond			TIPS	US RES	Global RES			
COMPOUND RETURN (%)	6.00	6.50	6.50	6.75	6.45	8.05	1.60	2.70	3.25	1.90	4.20	0.75	4.70	4.90	6.60	3.15	5.70	1.55
ARITHMETIC RETURN (%)	7.30	7.95	9.45	8.35	7.75	11.40	1.60	2.85	3.70	2.10	4.65	0.80	6.05	6.05	7.50	4.20	6.05	1.55
EXPECTED RISK (%)	17.00	18.00	26.00	18.80	17.05	28.00	1.25	5.15	9.85	6.00	10.00	3.50	17.00	15.80	14.00	15.00	8.75	1.75
CASH YIELD (%)	2.00	3.50	2.50	3.25	2.55	0.00	1.60	2.80	4.05	2.10	7.55	1.35	3.55	3.55	2.60	1.60	2.35	0.00
CORRELATIONS																		
US Stock	1.00																	
Dev ex-US Stock (USD)	0.81	1.00																
Emerging Mkt Stock	0.74	0.74	1.00															
Global ex-US Stock	0.83	0.96	0.86	1.00														
Global Stock	0.94	0.92	0.82	0.94	1.00													
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.93	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.60	0.47	1.00								
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.18	0.18	0.26	0.10	0.67	0.66	0.39	0.26	1.00						
US RE Securities	0.59	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
Global RE Securities	0.65	0.59	0.56	0.62	0.66	0.58	-0.05	0.17	0.22	0.11	0.62	0.03	0.94	1.00				
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.77	0.76	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.42	0.43	0.50	0.48	0.47	0.43	0.01	0.24	0.25	0.41	0.53	0.06	0.65	0.69	0.69	0.59	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

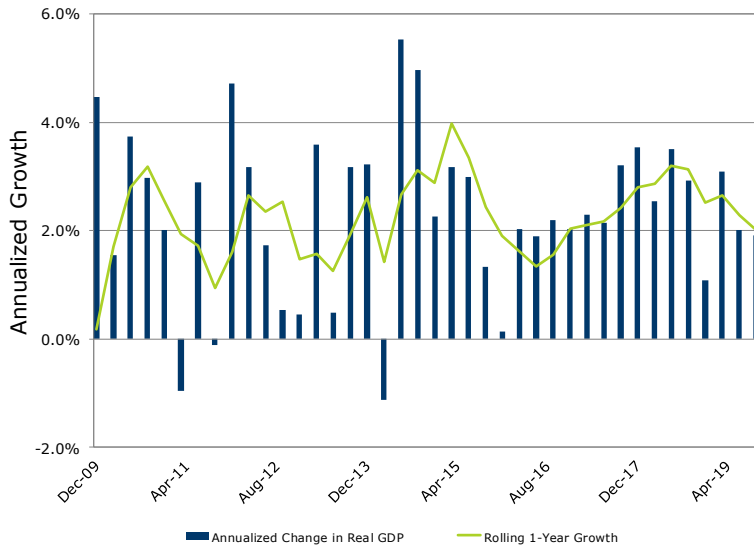
ECONOMIC REVIEW

AS OF SEPT 30, 2019 KEY ECONOMIC INDICATORS

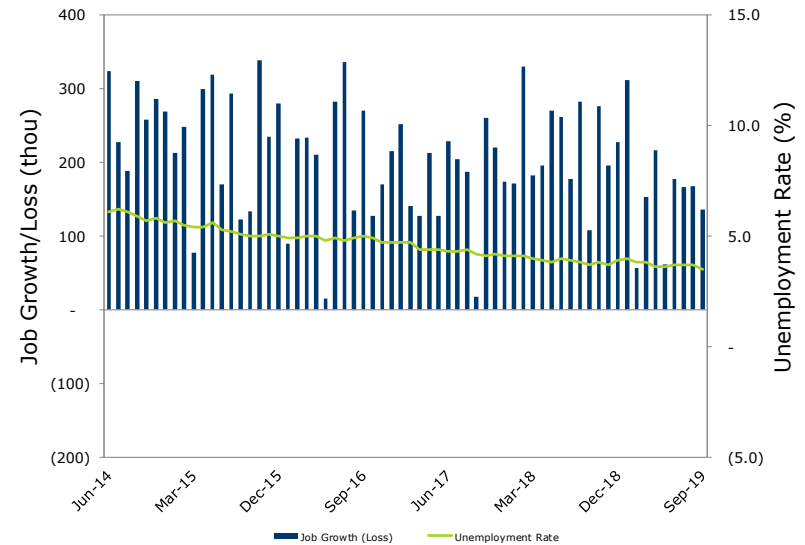
CPI (ALL ITEMS)	MONTHLY CHANGE		CUMULATIVE CHANGE	
SEASONALLY ADJUSTED	Sep-19	0.0	3-Mo.	0.4
	Aug-19	0.1	12-Mo.	1.7
	Jul-19	0.3	10-Yr. (Annual)	1.7
BREAKEVEN INFLATION	10-Yr.	1.5		
CONSUMER SENTIMENT	Sep-19	93.2		
U. OF MICHIGAN SURVEY	Aug-19	89.8		
	1-Yr. Ago	100.1	10-Yr. Avg	84.8
MANUFACTURING	Sep-19	47.8	CHANGE IN SECTOR	
INST. FOR SUPPLY MGMT	Aug-19	49.1	>50	Expansion
PURCHASING MNGRS' IDX	1-Yr. Avg.	53.5	<50	Contraction

Note: Seasonally adjusted CPI data is utilized to better reflect short-term pricing activity.

CHANGES IN REAL GDP (2012 BASE YEAR)



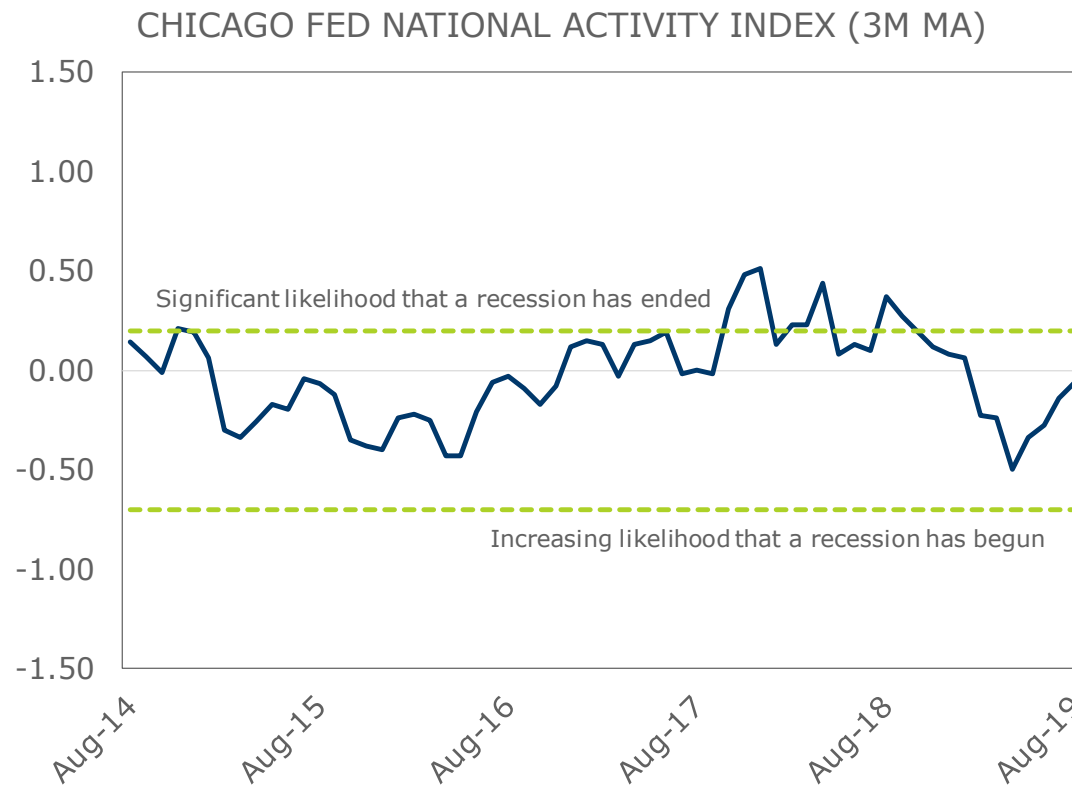
UNEMPLOYMENT RATE AND JOB GROWTH/LOSS



Data sources: Bureau of Labor Statistics, U.S. Treasury, University of Michigan, Institute for Supply Management, Bureau of Economic Analysis

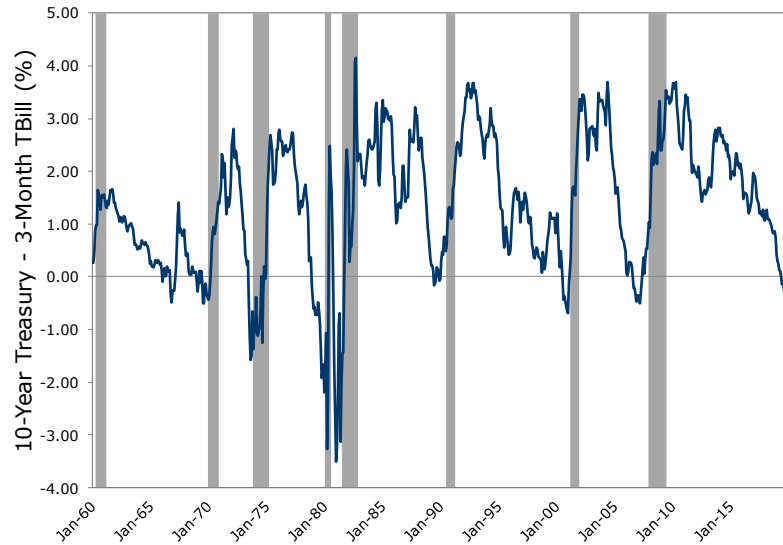
NATIONAL ACTIVITY INDEX

- Weighted average of 85 monthly indicators including 1) production and income, 2) employment, 3) consumption and housing and 4) sales, orders, and inventories (all inflation adjusted)
- Aims to identify when a recession may begin (during periods of growth) or end (when already experiencing a recession)

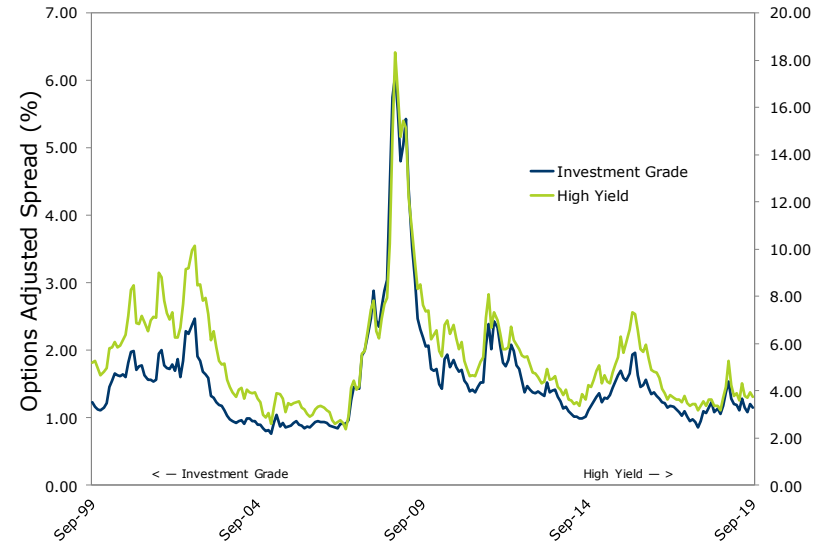


RISK MONITOR

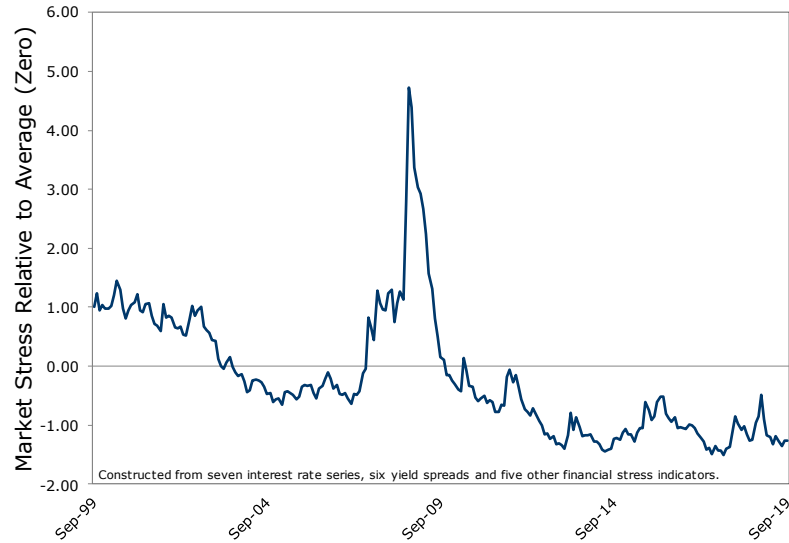
YIELD CURVE SLOPE VS RECESSIONS (IN GRAY)



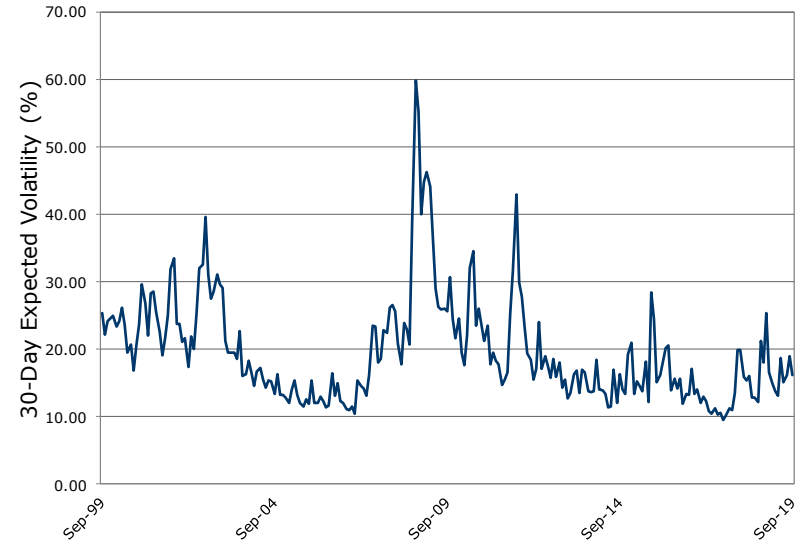
BLOOMBERG BARCLAYS CREDIT INDEXES



ST. LOUIS FED FINANCIAL STRESS INDEX



CBOE VOLATILITY INDEX

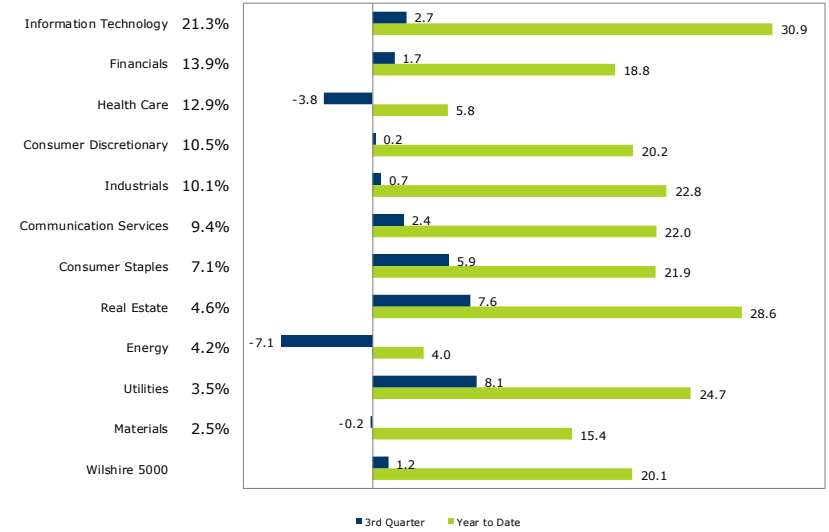


Data sources: Federal Reserve, Bloomberg Barclays

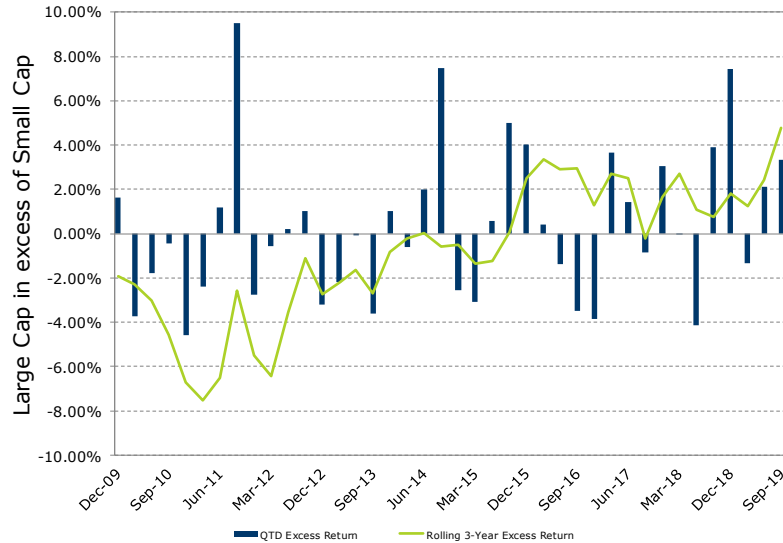
U.S. EQUITY MARKET

AS OF SEPT 30, 2019	QTR	YTD	1 YR	3 YR	5 YR	10 YR
WILSHIRE 5000 INDEX	1.2	20.1	3.0	12.9	10.6	13.1
WILSHIRE U.S. LARGE CAP	1.5	20.6	4.0	13.4	10.9	13.2
WILSHIRE U.S. SMALL CAP	-1.8	15.8	-7.0	8.2	8.0	12.1
WILSHIRE U.S. LARGE GROWTH	0.8	22.1	1.5	16.0	12.3	14.1
WILSHIRE U.S. LARGE VALUE	2.2	19.2	6.4	10.8	9.4	12.3
WILSHIRE U.S. SMALL GROWTH	-2.7	17.6	-6.6	11.0	8.5	12.7
WILSHIRE U.S. SMALL VALUE	-0.9	13.9	-7.4	5.5	7.4	11.4
WILSHIRE REIT INDEX	7.9	27.2	18.4	7.2	10.2	13.1
MSCI USA MIN. VOL. INDEX	4.1	23.5	14.0	13.8	12.9	13.7
FTSE RAFI U.S. 1000 INDEX	1.7	18.1	1.8	10.6	8.7	12.2

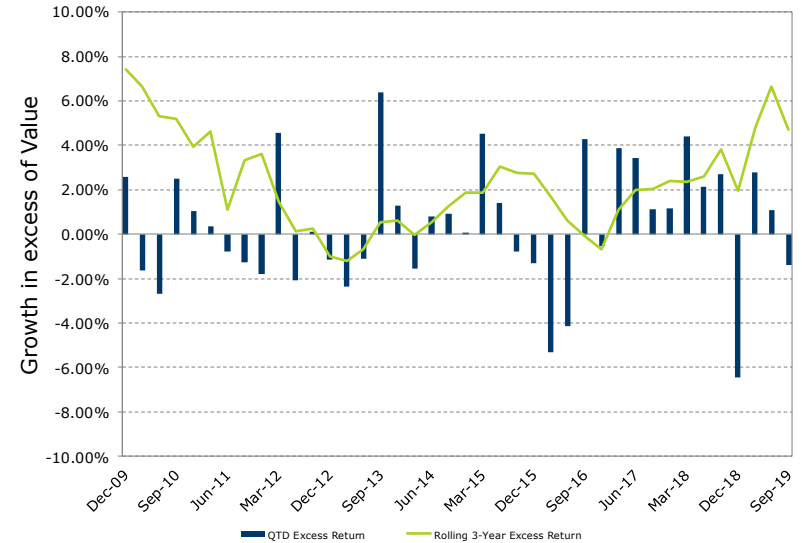
WILSHIRE 5000 SECTOR WEIGHT & RETURN (%)



LARGE CAP VS SMALL CAP



GROWTH VS VALUE

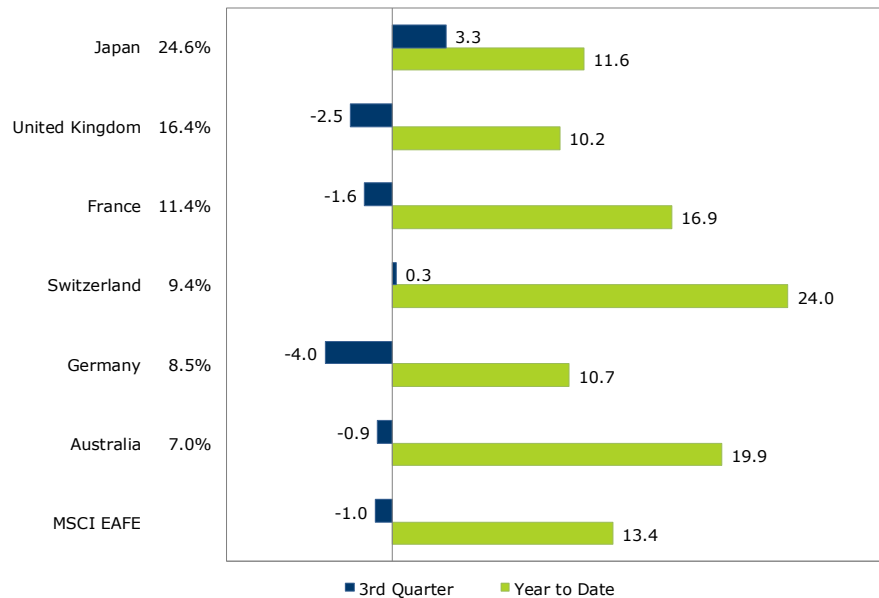


Data sources: Wilshire Compass, Wilshire Atlas

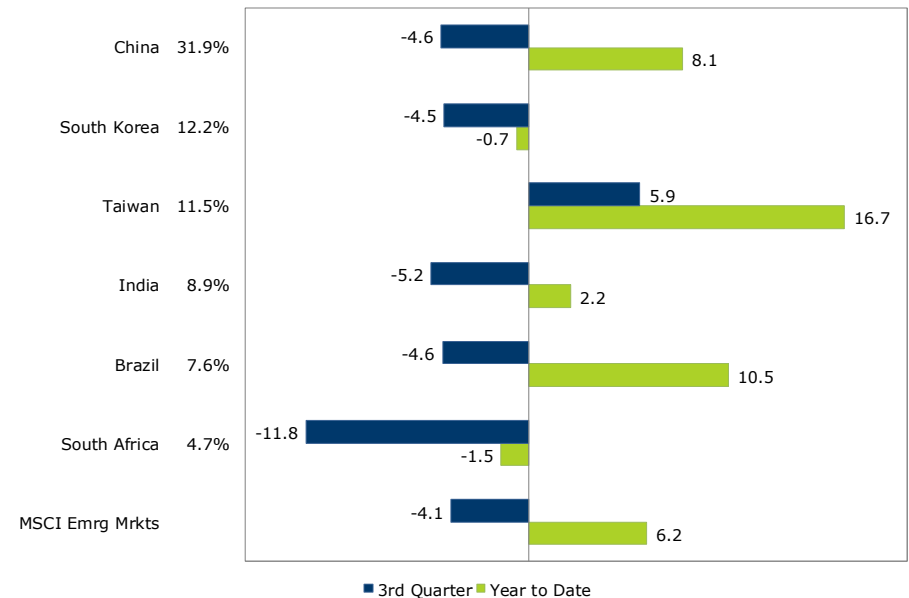
NON-U.S. EQUITY MARKET

AS OF SEPT 30, 2019	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI EX-US (\$G)	-1.7	12.1	-0.7	6.8	3.4	4.9
MSCI EAFE (\$G)	-1.0	13.4	-0.8	7.0	3.8	5.4
MSCI EMERGING MARKETS (\$G)	-4.1	6.2	-1.6	6.4	2.7	3.7
MSCI FRONTIER MARKETS (\$G)	-1.0	11.0	6.2	7.4	-0.9	4.0
MSCI ACWI EX-US GROWTH (\$G)	-0.8	16.6	2.4	7.8	5.2	6.2
MSCI ACWI EX-US VALUE (\$G)	-2.7	7.5	-3.9	5.9	1.5	3.6
MSCI ACWI EX-US SMALL (\$G)	-1.1	10.7	-5.2	5.0	4.5	6.8
MSCI ACWI MINIMUM VOLATILITY	2.9	18.2	10.5	10.5	10.1	10.9
MSCI EAFE MINIMUM VOLATILITY	0.9	12.4	4.1	6.7	6.8	7.7
FTSE RAFI DEVELOPED EX-US	-1.3	9.9	-4.2	7.0	2.8	4.2
MSCI EAFE LC (G)	1.8	16.2	2.1	8.8	6.5	7.5

MSCI EAFE: LARGEST COUNTRIES & RETURN (USD)



MSCI EM: LARGEST COUNTRIES & RETURN (USD)



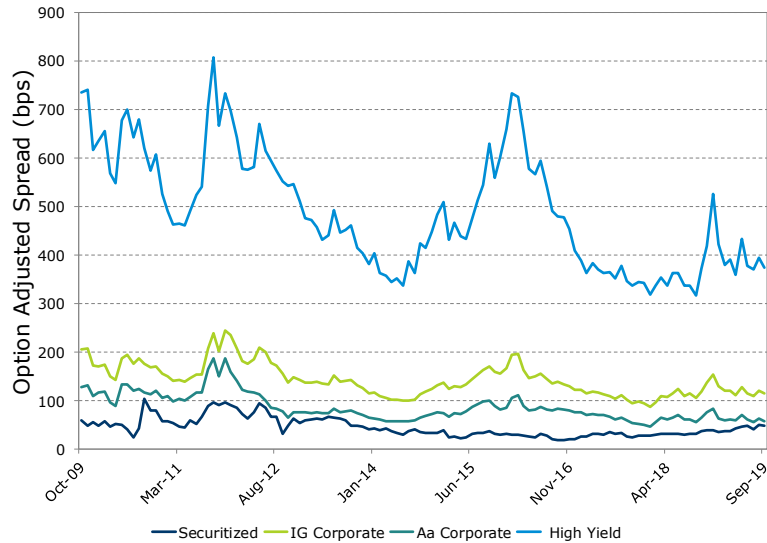
Data sources: Wilshire Compass

U.S. FIXED INCOME

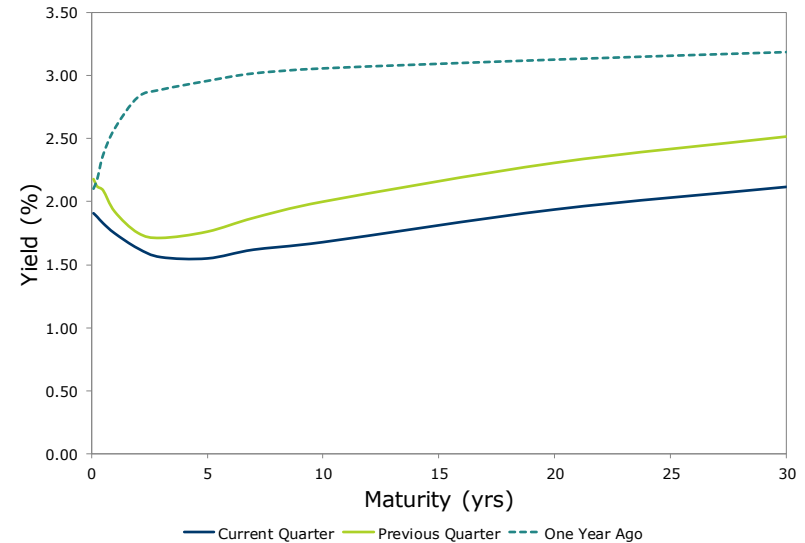
AS OF SEPT 30, 2019	YTM	DURATION	QTR	YTD	1 YR	3 YR	5 YR	10 YR
BLOOMBERG BARCLAYS AGGREGATE	2.3	5.8	2.3	8.5	10.3	2.9	3.4	3.7
BLOOMBERG BARCLAYS TREASURY	1.7	6.6	2.4	7.7	10.5	2.2	2.9	3.1
BLOOMBERG BARCLAYS GOV'T-REL.	2.4	5.8	2.4	8.8	10.1	3.2	3.4	3.5
BLOOMBERG BARCLAYS SECURITIZED	2.4	2.9	1.4	5.8	7.9	2.4	2.8	3.3
BLOOMBERG BARCLAYS CORPORATE	2.9	7.8	3.1	13.2	13.0	4.5	4.7	5.6
BLOOMBERG BARCLAYS LT G/C	3.0	15.9	6.6	20.9	21.9	5.6	6.8	7.4
BLOOMBERG BARCLAYS LT TREASURY	2.1	18.3	7.9	19.8	24.8	4.1	6.8	6.9
BLOOMBERG BARCLAYS LT GOV'T-REL.	3.5	12.7	5.6	18.8	18.8	6.0	6.5	7.3
BLOOMBERG BARCLAYS LT CORP.	3.6	14.4	5.6	22.3	20.1	6.5	7.0	7.8
BLOOMBERG BARCLAYS U.S. TIPS *	1.6	7.6	1.4	7.6	7.1	2.2	2.4	3.5
BLOOMBERG BARCLAYS HIGH YIELD	6.3	3.1	1.3	11.4	6.4	6.1	5.4	7.9
TREASURY BILLS	1.9	0.25	0.6	1.8	2.4	1.5	1.0	0.5

* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

BLOOMBERG BARCLAYS FIXED INCOME INDEXES



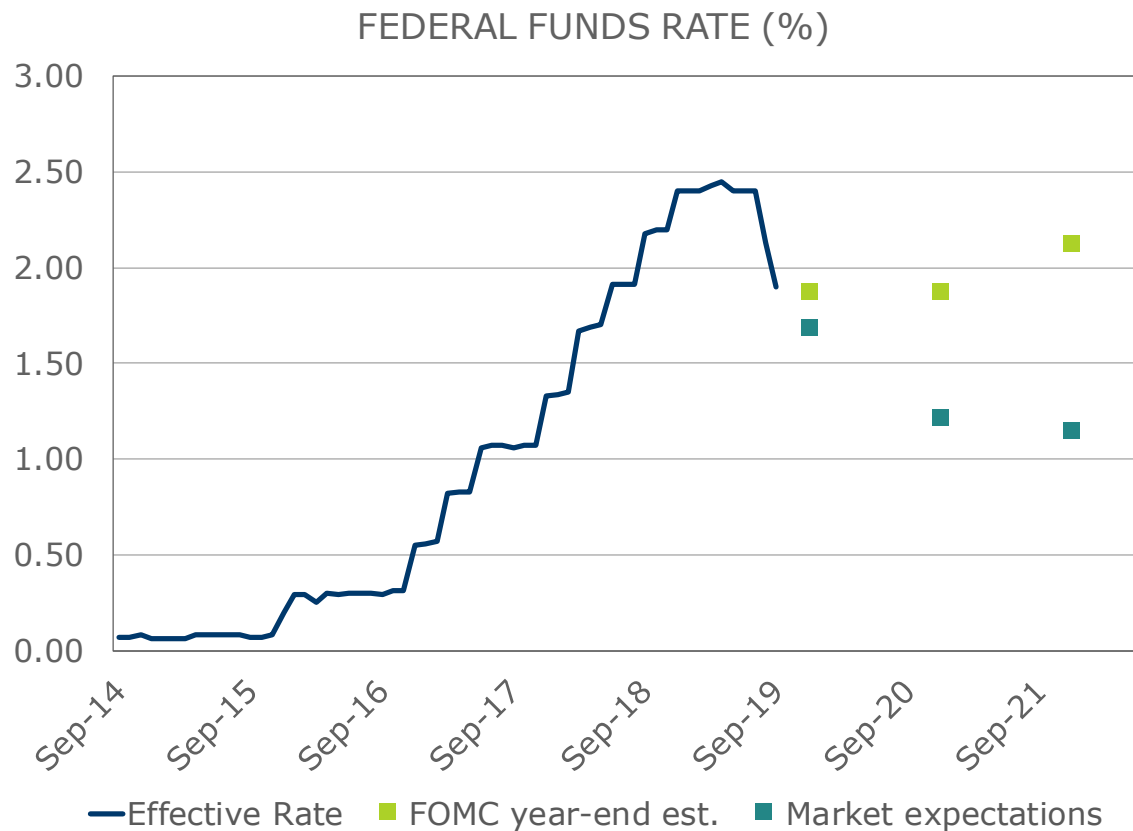
TREASURY YIELD CURVE



Data sources: Wilshire Compass, Bloomberg Barclays, U.S. Treasury

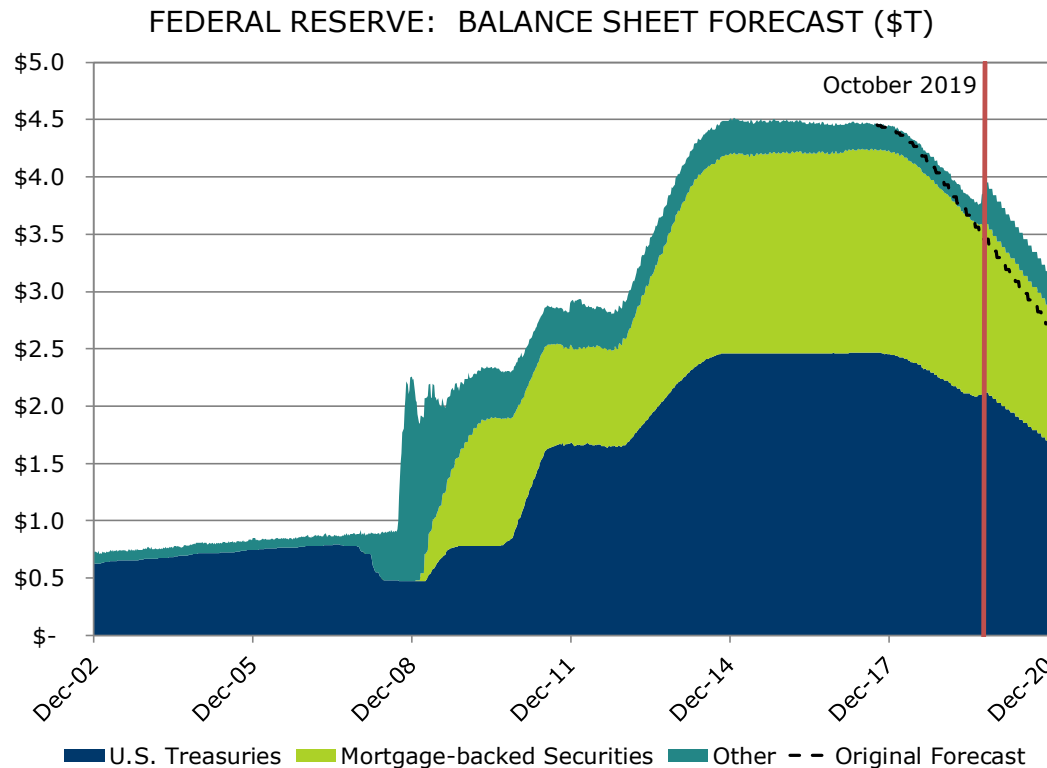
SHORT-TERM RATES

- Federal Reserve decreased their short-term rate twice during the 3rd quarter
- Markets are far more dovish, expecting additional decreases this year and next



FED BALANCE SHEET

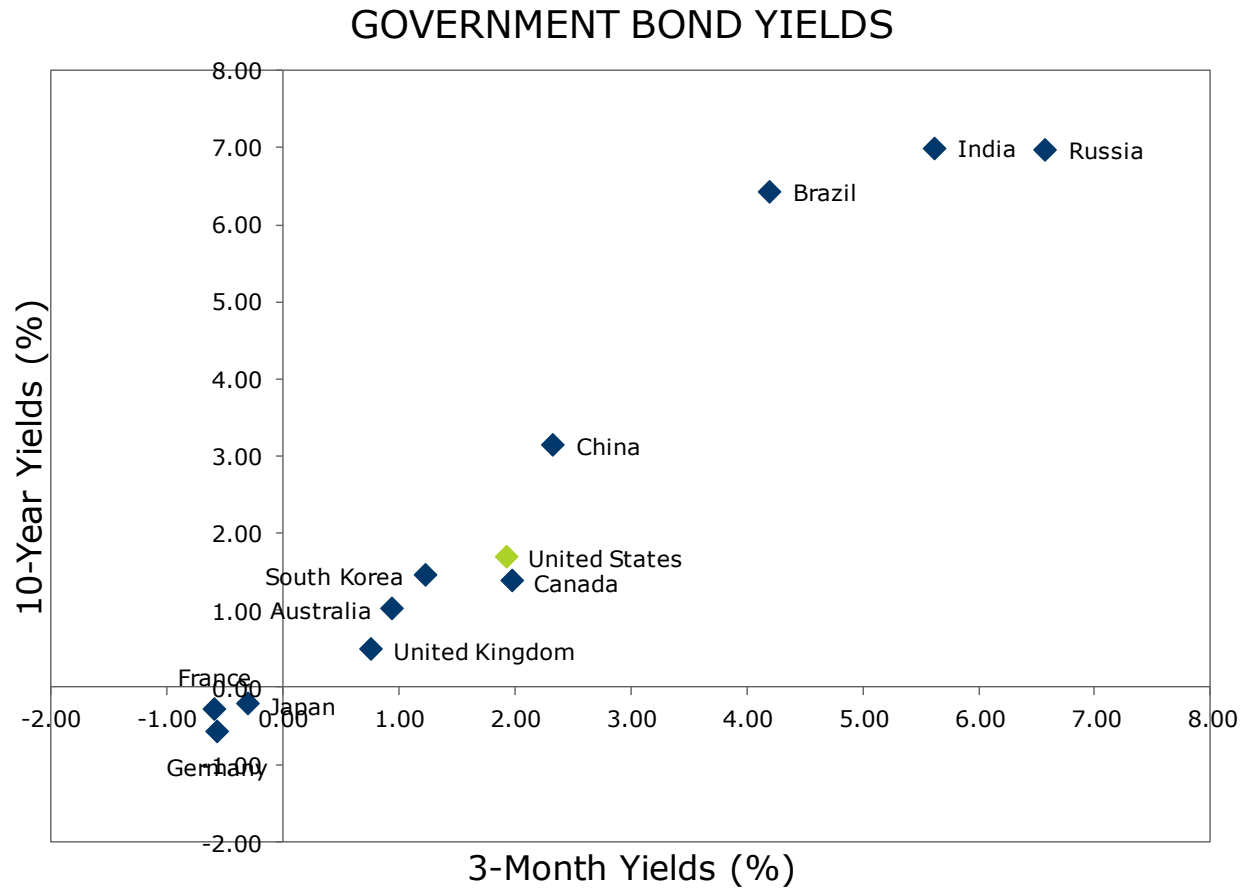
- Federal Reserve began their balance sheet normalization program during October 2017; targeting \$10B in reductions per month while increasing to \$50B per month in Q4 2018
- A liquidity shortage in the repo market in September forced the Fed to supply cash to the market; will continue to offer liquidity to money markets when necessary



Data sources: Federal Reserve

GLOBAL INTEREST RATES

Much of Europe and Japan exhibit negative rates; Long rates are down globally during the past six months



Data sources: Organization for Economic Co-operation and Development

NEGATIVE RATES

- Pricing in some markets is such that short-term rates are discounted to remain negative
- Main concern with negative rates is that market participants hold cash rather than bank deposits
 - Minimum deposit rates and tiered bank reserves partially protect against negative interest
 - However, this limits the effectiveness of rate cuts below zero
- Markets with negative rates are thought to provide less diversification benefits to a diversified portfolio, although low but positive yields can still lower overall portfolio risk

	Expected 1-Year Cash Rate (Years Forward)			
	0	1	2	3
Switzerland	-0.97%	-0.99%	-1.06%	-1.10%
Denmark	-0.86%	-0.91%	-0.94%	-0.93%
Germany	-0.71%	-0.91%	-1.00%	-0.98%
France	-0.65%	-0.79%	-0.80%	-0.72%
Sweden	-0.64%	-0.83%	-0.87%	-0.81%
Japan	-0.29%	-0.44%	-0.56%	-0.62%
United Kingdom	0.49%	0.16%	-0.01%	-0.07%
Australia	0.69%	0.47%	0.39%	0.44%
Canada	1.61%	1.29%	1.10%	1.00%
United States	1.69%	1.34%	1.21%	1.20%
China	2.76%	3.24%	3.10%	3.68%



FY 2019 FOURTH QUARTER EXECUTIVE SUMMARY REPORT



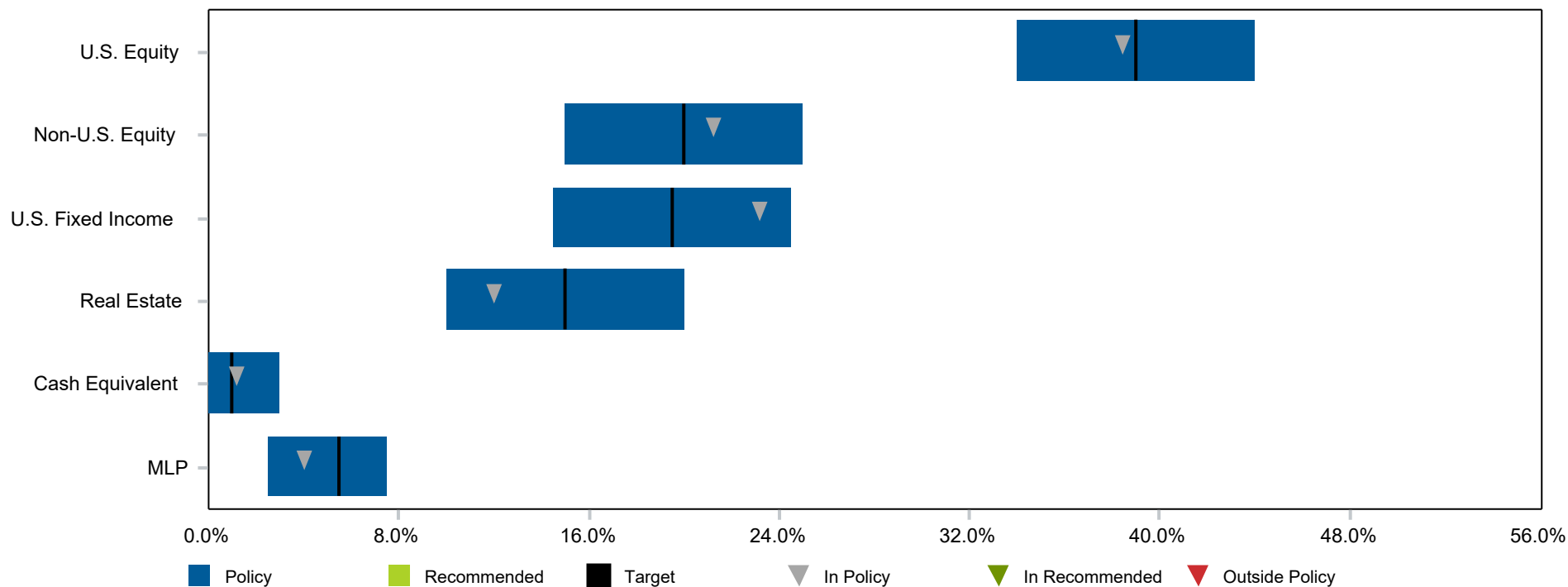
Total Fund Composite

Asset Allocation Compliance

Total Fund Composite

Periods Ended As of September 30, 2019

Executive Summary



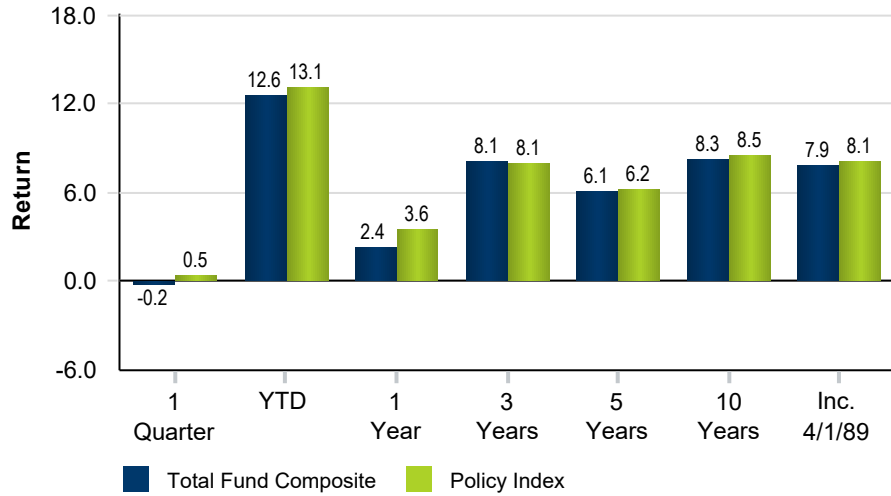
	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Minimum Rebalance \$	Maximum Rebalance \$
U.S. Equity	741,118,468	38.4	34.0	44.0	39.0	-85,663,407	107,117,494
Non-U.S. Equity	409,554,529	21.2	15.0	25.0	20.0	-120,383,178	72,397,723
U.S. Fixed Income	446,407,340	23.2	14.5	24.5	19.5	-166,875,035	25,905,866
Real Estate	231,272,501	12.0	10.0	20.0	15.0	-38,491,600	154,289,300
Cash Equivalent	22,232,523	1.2	0.0	3.0	1.0	-22,232,523	35,601,747
MLP	77,223,644	4.0	2.5	7.5	5.5	-29,028,419	67,362,031
Total Fund	1,927,809,004	100.0			100.0		

Total Fund Summary

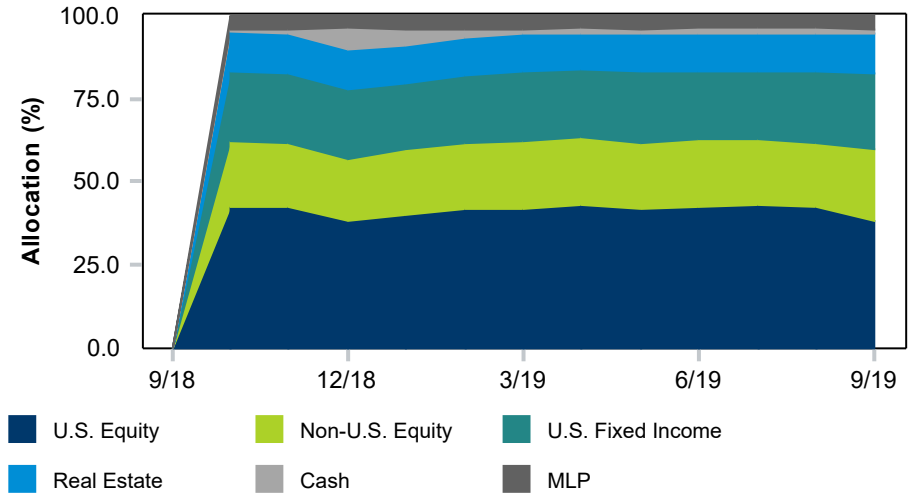
Total Fund Composite

Periods Ended September 30, 2019

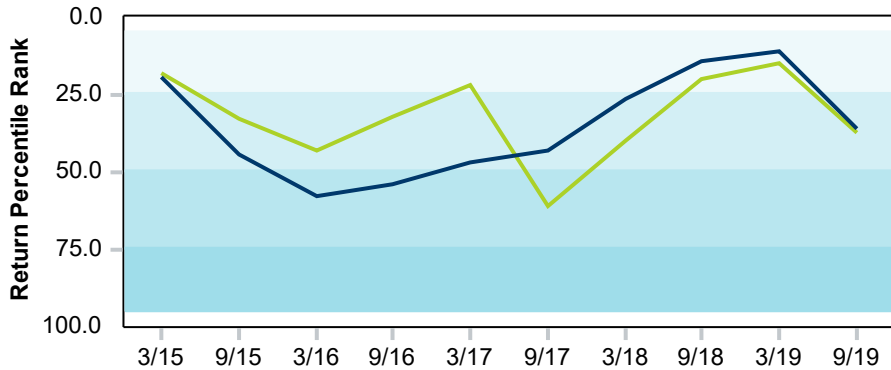
Comparative Performance



Historical Asset Allocation by Segment

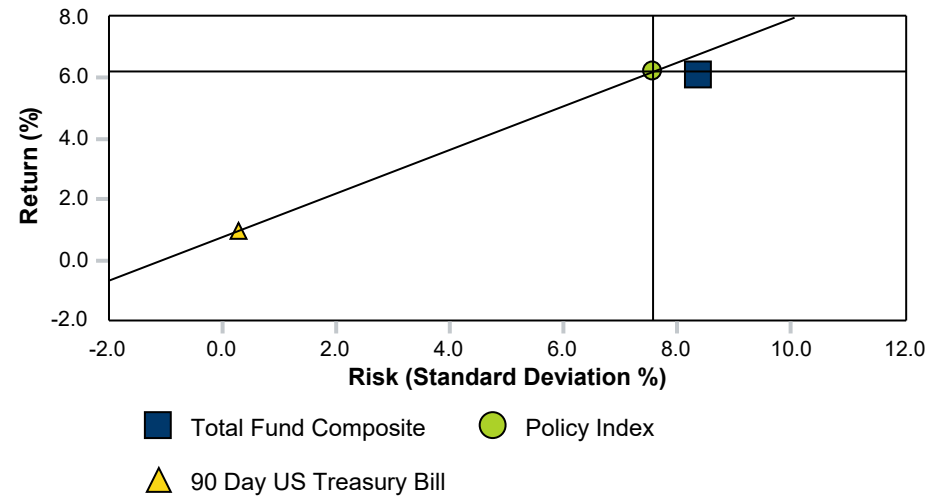


Rolling Percentile Rank: All Public Plans-Total Fund



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
— Total Fund Composite	10	3 (30%)	5 (50%)	2 (20%)	0 (0%)
— Benchmark	10	4 (40%)	5 (50%)	1 (10%)	0 (0%)

Risk and Return 10/1/14 - 09/30/19

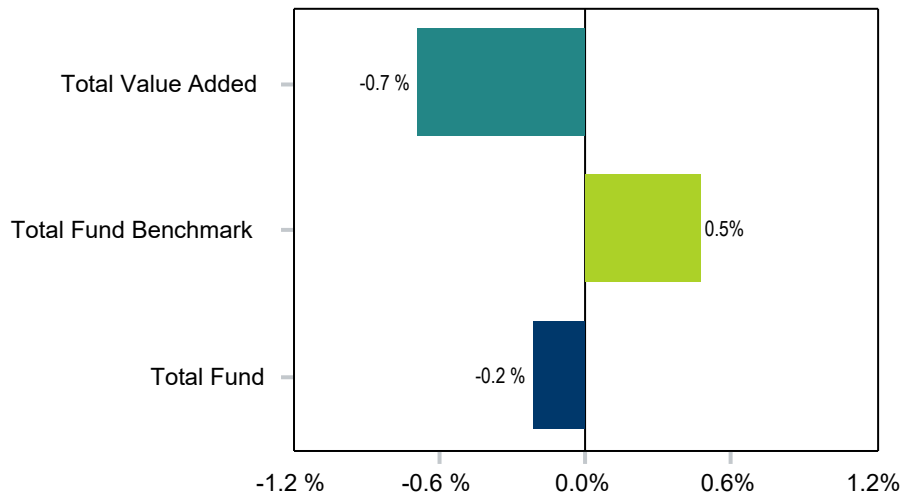


Total Fund Attribution

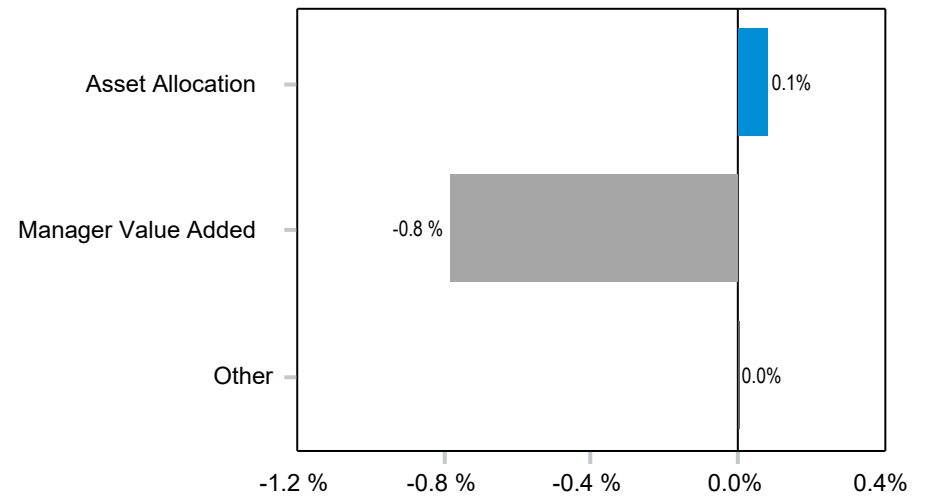
Total Fund Composite

Periods Ended 1 Quarter Ending September 30, 2019

Total Fund Performance



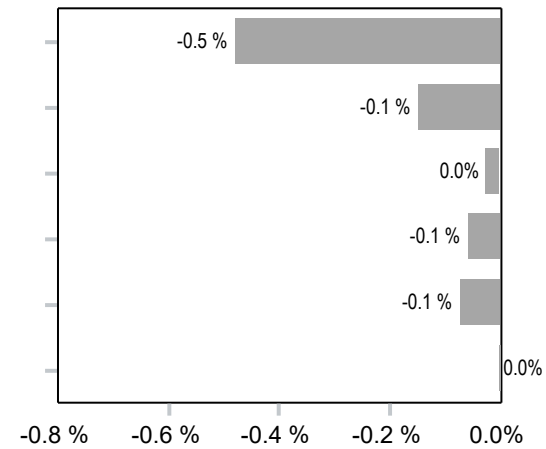
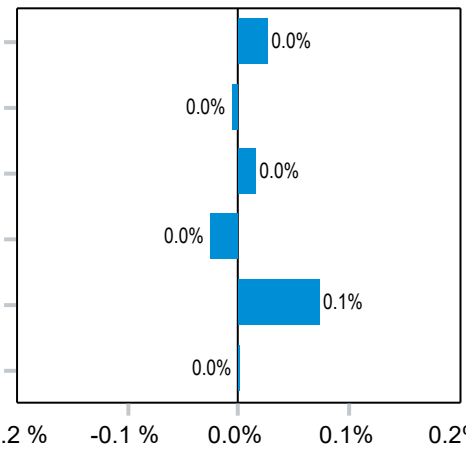
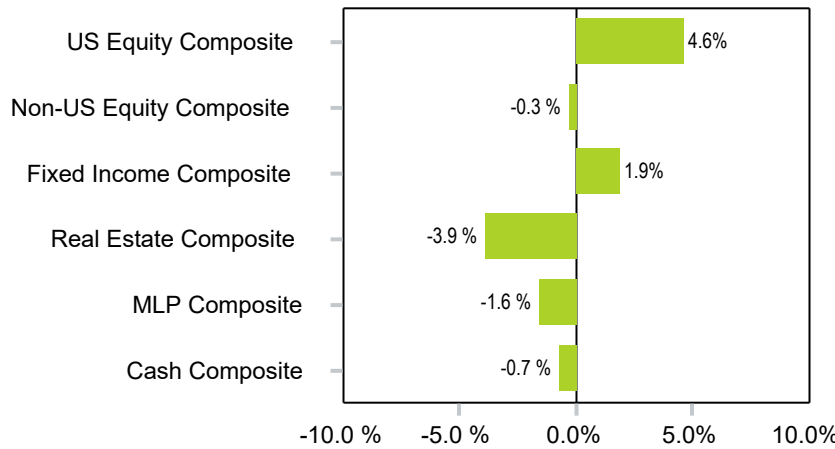
Total Value Added:-0.7 %



Total Asset Allocation:0.1%

Asset Allocation Value Added:0.1%

Total Manager Value Added:-0.8 %



■ Average Active Weight

■ Asset Allocation Value Added

■ Manager Value Added

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Fund Composite	1,927,809,004	100.00	-0.21	12.64	2.41	2.41	8.10	6.08	8.28	7.90	4/1/1989
Policy Index			0.48	13.15	3.55	3.55	8.07	6.21	8.51	8.15	
Value Added			-0.69	-0.51	-1.14	-1.14	0.03	-0.13	-0.23	-0.25	
US Equity Composite	753,422,871	39.08	0.06	19.72	2.99	2.99	12.68	9.69	12.24	10.15	1/1/1988
Russell 3000 Index			1.16	20.09	2.92	2.92	12.83	10.44	13.08	10.61	
Value Added			-1.10	-0.37	0.07	0.07	-0.15	-0.75	-0.84	-0.46	
Non-US Equity Composite	409,489,383	21.24	-2.53	10.40	-3.94	-3.94	7.04	3.88	4.75	4.77	2/1/1999
Policy Index			-1.80	11.56	-1.23	-1.23	6.33	2.90	4.46	3.81	
Value Added			-0.73	-1.16	-2.71	-2.71	0.71	0.98	0.29	0.96	
Fixed Income Composite	450,623,528	23.37	2.03	9.36	9.62	9.62	3.74	3.86	3.90	6.22	1/1/1988
Policy Index			2.15	8.74	10.12	10.12	3.07	3.46	3.79	6.29	
Value Added			-0.12	0.62	-0.50	-0.50	0.67	0.40	0.11	-0.07	
Real Estate Composite	231,272,501	12.00	0.58	2.20	3.93	3.93	6.38	8.33	10.53	8.27	4/1/2005
NCREIF Fund Index-ODCE (VW) (Net)			1.08	3.09	4.66	4.66	6.35	8.36	9.84	6.57	
Value Added			-0.50	-0.89	-0.73	-0.73	0.03	-0.03	0.69	1.70	
MLP Composite	78,658,243	4.08	-5.69	11.97	-9.00	-9.00	-1.82	-6.52		5.20	3/1/2011
S&P MLP Total Return Index			-4.04	13.28	-6.88	-6.88	-0.80	-8.02		1.90	
Value Added			-1.65	-1.31	-2.12	-2.12	-1.02	1.50		3.30	

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Cash Composite	4,342,479	0.23	0.56	1.89	2.54	2.54	2.10	1.34	0.84	7.48	12/1/1998
FTSE 3 Month T-Bill			0.56	1.78	2.36	2.36	1.52	0.96	0.51	1.84	
Value Added			0.00	0.11	0.18	0.18	0.58	0.38	0.33	5.64	

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Total Fund Composite	1,927,809,004	100.00	-0.21	12.64	2.41	2.41	8.10	6.08	8.28	7.90	4/1/1989
Policy Index			0.48	13.15	3.55	3.55	8.07	6.21	8.51	8.15	
Value Added			-0.69	-0.51	-1.14	-1.14	0.03	-0.13	-0.23	-0.25	
Equity Composite	1,162,912,254	60.32	-0.76	16.71	0.76	0.76	10.72	7.71	9.80	5.52	6/1/2007
US Equity Composite	753,422,871	39.08	0.06	19.72	2.99	2.99	12.68	9.69	12.24	10.15	1/1/1988
Russell 3000 Index			1.16	20.09	2.92	2.92	12.83	10.44	13.08	10.61	
Value Added			-1.10	-0.37	0.07	0.07	-0.15	-0.75	-0.84	-0.46	
Large Cap Composite	633,654,092	32.87	0.08	19.89	4.55	4.55	13.56	10.41	12.45	7.54	6/1/2007
Russell 1000 Index			1.42	20.53	3.87	3.87	13.19	10.62	13.23	7.83	
Value Added			-1.34	-0.64	0.68	0.68	0.37	-0.21	-0.78	-0.29	
Large Core Composite	226,266,866	11.74	1.70	20.59	4.34	4.34	13.03	10.49	12.81	7.43	6/1/2007
S&P 500			1.70	20.55	4.25	4.25	13.39	10.84	13.24	7.81	
Value Added			0.00	0.04	0.09	0.09	-0.36	-0.35	-0.43	-0.38	
NT S&P 500	226,266,866	11.74	1.70	20.59	4.34	4.34	13.39	10.87	13.24	6.36	1/1/1999
S&P 500			1.70	20.55	4.25	4.25	13.39	10.84	13.24	6.36	
Value Added			0.00	0.04	0.09	0.09	0.00	0.03	0.00	0.00	
Large Value Composite	198,041,003	10.27	-1.93	18.30	1.70	1.70	13.29	9.62	12.00	6.05	6/1/2007
Russell 1000 Value Index			1.36	17.81	4.00	4.00	9.43	7.79	11.46	5.65	
Value Added			-3.29	0.49	-2.30	-2.30	3.86	1.83	0.54	0.40	

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Eagle Capital Mgmt	198,023,515	10.27	-1.93	18.30	1.70	1.70	13.32	9.80		12.15	4/1/2011
Russell 1000 Value Index			1.36	17.81	4.00	4.00	9.43	7.79		10.35	
Value Added			-3.29	0.49	-2.30	-2.30	3.89	2.01		1.80	
GAMCO	17,489	0.00									
Large Growth Composite	209,346,222	10.86	0.31	20.55	7.23	7.23	14.35	11.33	12.25	8.51	6/1/2007
Russell 1000 Growth Index			1.49	23.30	3.71	3.71	16.89	13.39	14.94	9.91	
Value Added			-1.18	-2.75	3.52	3.52	-2.54	-2.06	-2.69	-1.40	
Loomis, Sayles	105,255,921	5.46	-1.23	20.85	6.69	6.69				12.62	9/1/2017
Russell 1000 Growth Index			1.49	23.30	3.71	3.71				14.54	
Value Added			-2.72	-2.45	2.98	2.98				-1.92	
Sawgrass Asset Mgmt	104,076,909	5.40	1.81	20.28	7.75	7.75	15.55	11.89		12.52	11/1/2013
Russell 1000 Growth Index			1.49	23.30	3.71	3.71	16.89	13.39		13.71	
Value Added			0.32	-3.02	4.04	4.04	-1.34	-1.50		-1.19	
Brown Inv Advisory	13,393	0.00									
Small/Mid Cap Composite	119,768,780	6.21	-0.03	18.69	-3.69	-3.69	8.91	7.20	11.17	6.75	6/1/2007
Russell 2500 Index			-1.28	17.72	-4.04	-4.04	9.51	8.57	12.22	7.16	
Value Added			1.25	0.97	0.35	0.35	-0.60	-1.37	-1.05	-0.41	
Pinnacle	56,716,662	2.94	-0.05	20.87	-2.28	-2.28	11.45	8.24	12.91	17.80	3/1/2009
Russell 2500 Growth Index			-3.18	19.97	-4.11	-4.11	12.33	10.22	13.48	17.55	
Value Added			3.13	0.90	1.83	1.83	-0.88	-1.98	-0.57	0.25	

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Wedge Capital Mgmt	63,052,117	3.27	0.00	16.70	-5.00	-5.00	5.55			5.46	9/1/2016
Russell 2000 Value Index			-0.57	12.82	-8.24	-8.24	6.54			6.63	
Value Added			0.57	3.88	3.24	3.24	-0.99			-1.17	
Non-US Equity Composite	409,489,383	21.24	-2.53	10.40	-3.94	-3.94	7.04	3.88	4.75	4.77	2/1/1999
Policy Index			-1.80	11.56	-1.23	-1.23	6.33	2.90	4.46	3.81	
Value Added			-0.73	-1.16	-2.71	-2.71	0.71	0.98	0.29	0.96	
Developed Large Composite	295,634,679	15.34	-1.83	13.03	-3.49	-3.49	8.02	5.05	5.49	5.84	9/1/2009
MSCI EAFE Index (Net)			-1.07	12.80	-1.34	-1.34	6.48	3.27	4.90	5.25	
Value Added			-0.76	0.23	-2.15	-2.15	1.54	1.78	0.59	0.59	
NT EAFE	28,549,955	1.48	-0.97							6.14	2/1/2019
MSCI EAFE Index (Net)			-1.07							5.85	
Value Added			0.10							0.29	
Baillie Gifford	120,389,343	6.24	-2.57	20.51	-2.59	-2.59	10.78	7.09		6.82	3/1/2011
MSCI EAFE Growth Index (Net)			-0.45	17.94	2.21	2.21	7.77	5.49		5.27	
Value Added			-2.12	2.57	-4.80	-4.80	3.01	1.60		1.55	
Silchester	146,695,381	7.61	-1.39	7.54	-4.23	-4.23	6.29	4.21		5.77	9/1/2013
MSCI EAFE Value Index (Net)			-1.74	7.67	-4.92	-4.92	5.10	0.99		2.99	
Value Added			0.35	-0.13	0.69	0.69	1.19	3.22		2.78	
Emerging Markets Composite	113,854,703	5.91	-4.30	4.23	-5.38	-5.38	4.42	1.19	3.02	3.02	10/1/2009
MSCI Emerging Markets (Net)			-4.25	5.90	-2.02	-2.02	5.97	2.33	3.37	3.37	
Value Added			-0.05	-1.67	-3.36	-3.36	-1.55	-1.14	-0.35	-0.35	

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Acadian Emerging Mkts	113,854,703	5.91	-4.30	4.23	-5.38	-5.38	4.46	1.21		1.86	1/1/2014
MSCI Emerging Markets (Net)			-4.25	5.90	-2.02	-2.02	5.97	2.33		2.45	
Value Added			-0.05	-1.67	-3.36	-3.36	-1.51	-1.12		-0.59	
Fixed Income Composite	450,623,528	23.37	2.03	9.36	9.62	9.62	3.74	3.86	3.90	6.22	1/1/1988
Policy Index			2.15	8.74	10.12	10.12	3.07	3.46	3.79	6.29	
Value Added			-0.12	0.62	-0.50	-0.50	0.67	0.40	0.11	-0.07	
Core Fixed Composite	95,789,081	4.97	2.07	9.31	9.76	9.76	3.40	3.77	3.85	4.16	12/1/2007
Blmbg. Barc. U.S. Aggregate			2.27	8.52	10.30	10.30	2.92	3.38	3.75	4.12	
Value Added			-0.20	0.79	-0.54	-0.54	0.48	0.39	0.10	0.04	
NT Aggregate Bond	1,999,642	0.10	2.28	8.58	10.35	10.35	2.95	3.40		2.93	2/1/2013
Blmbg. Barc. U.S. Aggregate			2.27	8.52	10.30	10.30	2.92	3.38		2.93	
Value Added			0.01	0.06	0.05	0.05	0.03	0.02		0.00	
Thompson Siegel	93,789,439	4.87	2.07	9.32	9.75	9.75	3.60	3.97	4.25	6.04	8/1/1991
Policy Index			2.27	8.52	10.30	10.30	2.92	3.38	3.75	5.80	
Value Added			-0.20	0.80	-0.55	-0.55	0.68	0.59	0.50	0.24	
Core Plus Fixed Composite	354,834,447	18.41	2.02	9.38	9.55	9.55				4.94	12/1/2016
Blmbg. Barc. U.S. Universal Index			2.12	8.80	10.07	10.07				4.50	
Value Added			-0.10	0.58	-0.52	-0.52				0.44	
Loomis, Sayles	144,925,185	7.52	1.85	8.48	8.59	8.59				4.86	2/1/2017
Blmbg. Barc. U.S. Universal Index			2.12	8.80	10.07	10.07				4.54	
Value Added			-0.27	-0.32	-1.48	-1.48				0.32	

Asset Allocation & Performance

Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Neuberger Berman	209,909,262	10.89	2.14	10.01	10.22	10.22				4.86	1/1/2017
Blmbg. Barc. U.S. Universal Index			2.12	8.80	10.07	10.07				4.53	
Value Added			0.02	1.21	0.15	0.15				0.33	
Real Estate Composite	231,272,501	12.00	0.58	2.20	3.93	3.93	6.38	8.33	10.53	8.27	4/1/2005
NCREIF Fund Index-ODCE (VW) (Net)			1.08	3.09	4.66	4.66	6.35	8.36	9.84	6.57	
Value Added			-0.50	-0.89	-0.73	-0.73	0.03	-0.03	0.69	1.70	
JP Morgan	174,257,852	9.04	0.23	1.39	3.24	3.24	5.87	7.89	9.78	7.31	4/1/2005
NCREIF Fund Index-ODCE (VW) (Net)			1.08	3.09	4.66	4.66	6.35	8.36	9.84	6.57	
Value Added			-0.85	-1.70	-1.42	-1.42	-0.48	-0.47	-0.06	0.74	
Principal Global	57,014,649	2.96	1.67	4.77	6.12	6.12	7.98	9.73		10.38	4/1/2013
NCREIF Fund Index-ODCE (VW) (Net)			1.08	3.09	4.66	4.66	6.35	8.36		9.29	
Value Added			0.59	1.68	1.46	1.46	1.63	1.37		1.09	
MLP Composite	78,658,243	4.08	-5.69	11.97	-9.00	-9.00	-1.82	-6.52		5.20	3/1/2011
S&P MLP Total Return Index			-4.04	13.28	-6.88	-6.88	-0.80	-8.02		1.90	
Value Added			-1.65	-1.31	-2.12	-2.12	-1.02	1.50		3.30	
Harvest MLP	39,095,392	2.03	-5.21	13.95	-10.07	-10.07	-1.83	-6.47		5.41	3/1/2011
S&P MLP Total Return Index			-4.04	13.28	-6.88	-6.88	-0.80	-8.02		1.90	
Value Added			-1.17	0.67	-3.19	-3.19	-1.03	1.55		3.51	
Tortoise MLP	39,562,851	2.05	-6.17	10.07	-7.92	-7.92	-1.66	-6.56		5.03	3/1/2011
S&P MLP Total Return Index			-4.04	13.28	-6.88	-6.88	-0.80	-8.02		1.90	
Value Added			-2.13	-3.21	-1.04	-1.04	-0.86	1.46		3.13	

Asset Allocation & Performance

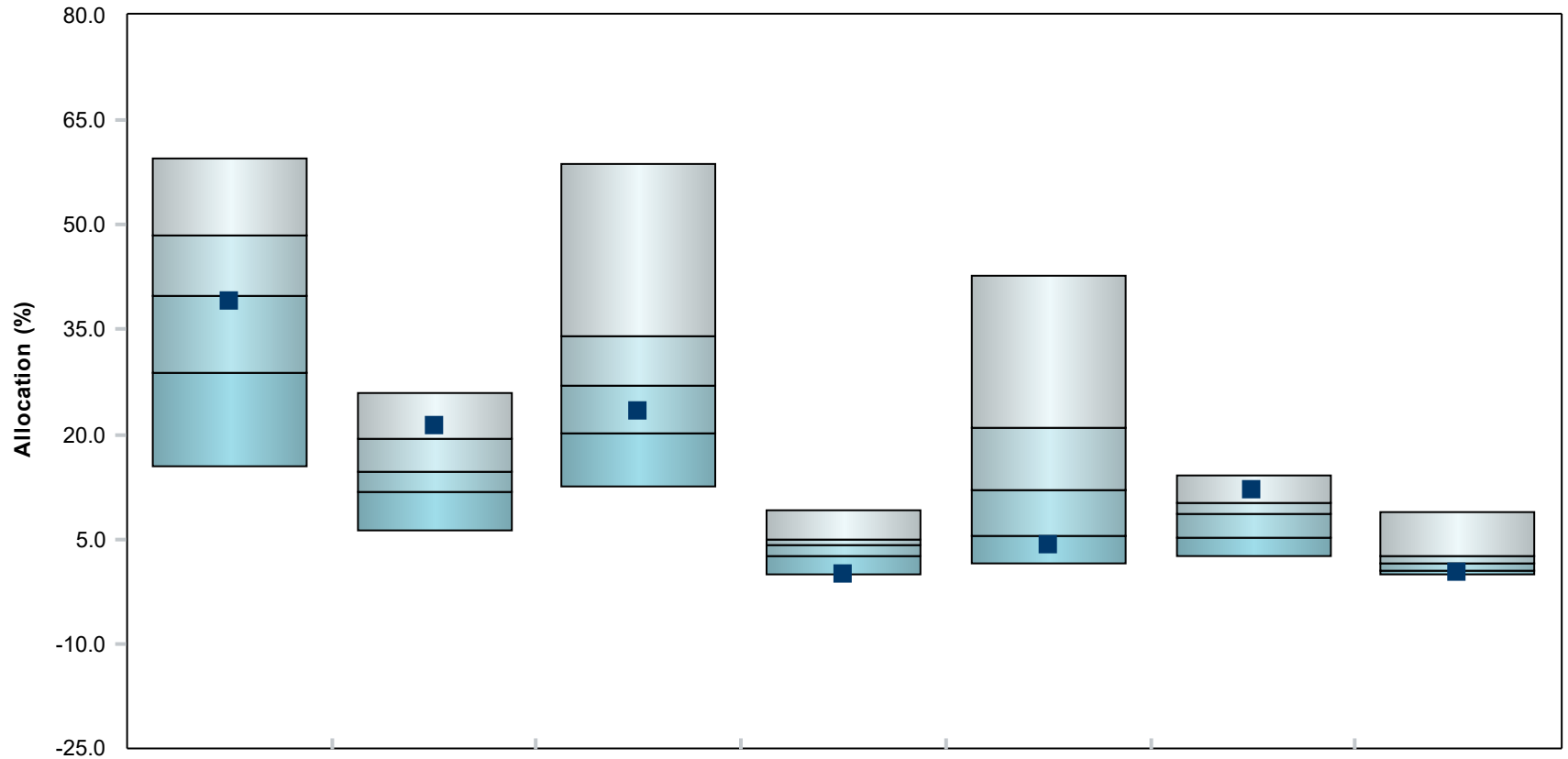
Total Fund Composite

Periods Ended September 30, 2019

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Cash Composite	4,342,479	0.23	0.56	1.89	2.54	2.54	2.10	1.34	0.84	7.48	12/1/1998
FTSE 3 Month T-Bill			0.56	1.78	2.36	2.36	1.52	0.96	0.51	1.84	
Value Added			0.00	0.11	0.18	0.18	0.58	0.38	0.33	5.64	

Plan Sponsor TF Asset Allocation

Total Fund Composite vs All Public Plans-Total Fund
 Periods Ended September 30, 2019

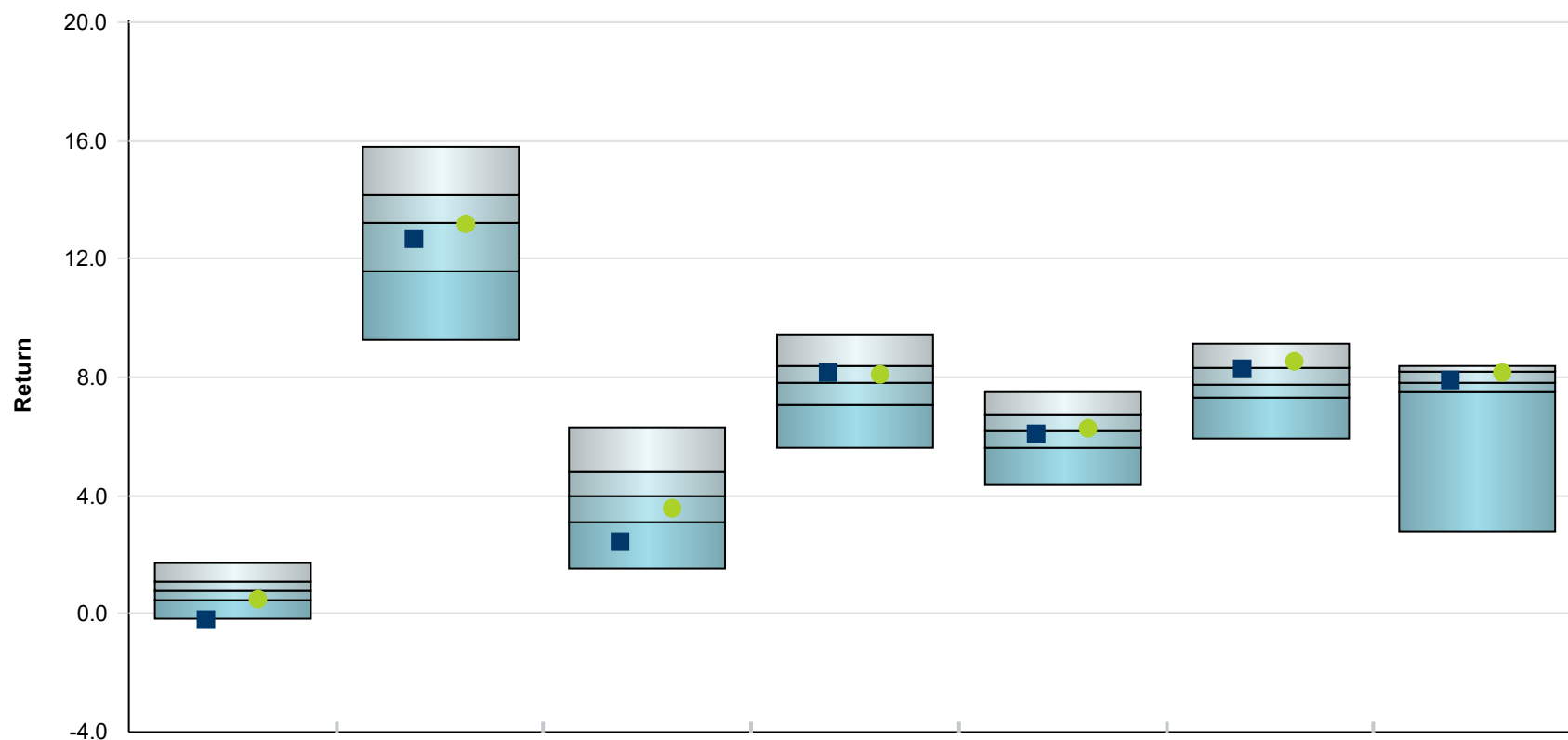


	US Equity	Intl. Equity	US Fixed Income	Intl. Fixed Income	Alternative Inv.	Real Estate	Cash
■ Total Fund Composite	39.08	21.24	23.37	0.00	4.08	12.00	0.23
5th Percentile	59.58	25.96	58.86	9.20	42.68	14.18	8.85
1st Quartile	48.50	19.46	34.16	4.89	20.87	10.23	2.54
Median	39.72	14.55	26.94	4.15	11.97	8.53	1.40
3rd Quartile	28.79	11.88	20.14	2.48	5.48	5.14	0.59
95th Percentile	15.42	6.30	12.66	0.05	1.44	2.56	0.06

Plan Sponsor Peer Group Analysis

Total Fund Composite vs All Public Plans-Total Fund

Periods Ended September 30, 2019



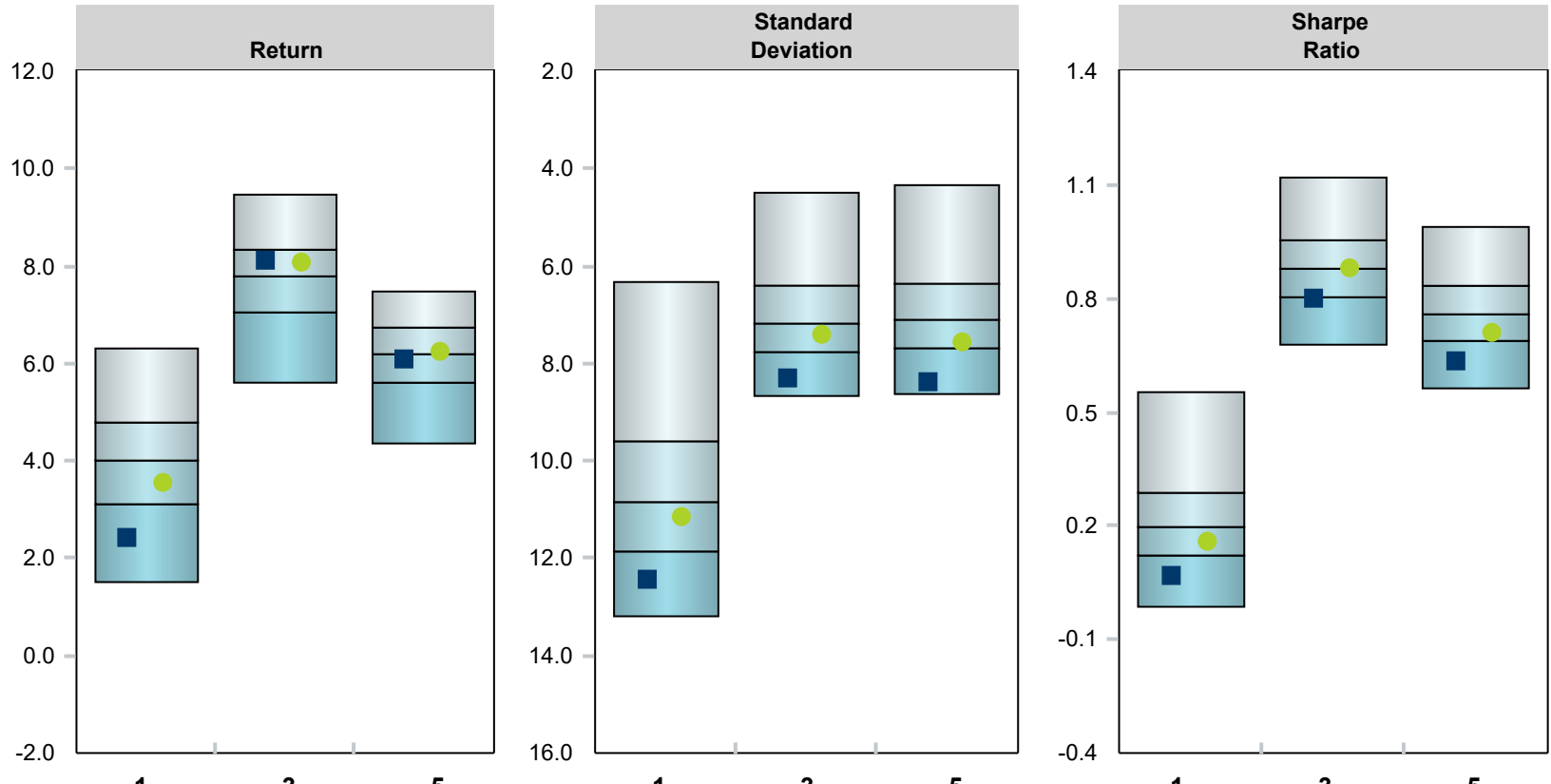
	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception
■ Total Fund Composite	-0.21 (97)	12.64 (60)	2.41 (88)	8.10 (36)	6.08 (56)	8.28 (28)	7.90 (41)
● Policy Index	0.48 (75)	13.15 (52)	3.55 (63)	8.07 (37)	6.21 (49)	8.51 (18)	8.15 (27)
5th Percentile	1.70	15.81	6.29	9.46	7.49	9.11	8.36
1st Quartile	1.07	14.18	4.78	8.35	6.72	8.32	8.17
Median	0.80	13.21	4.00	7.79	6.19	7.77	7.80
3rd Quartile	0.46	11.57	3.12	7.05	5.61	7.28	7.49
95th Percentile	-0.14	9.28	1.50	5.61	4.37	5.92	2.82

Parenteses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis-Multi Statistics

Total Fund Composite

Periods Ended September 30, 2019



■ Total Fund Composite
● Policy Index

	1 Year	3 Years	5 Years
Total Fund Composite	2.41 (88)	8.10 (36)	6.08 (56)
Policy Index	3.55 (63)	8.07 (37)	6.21 (49)

	1 Year	3 Years	5 Years
Total Fund Composite	12.47 (86)	8.32 (90)	8.40 (92)
Policy Index	11.18 (57)	7.44 (60)	7.57 (69)

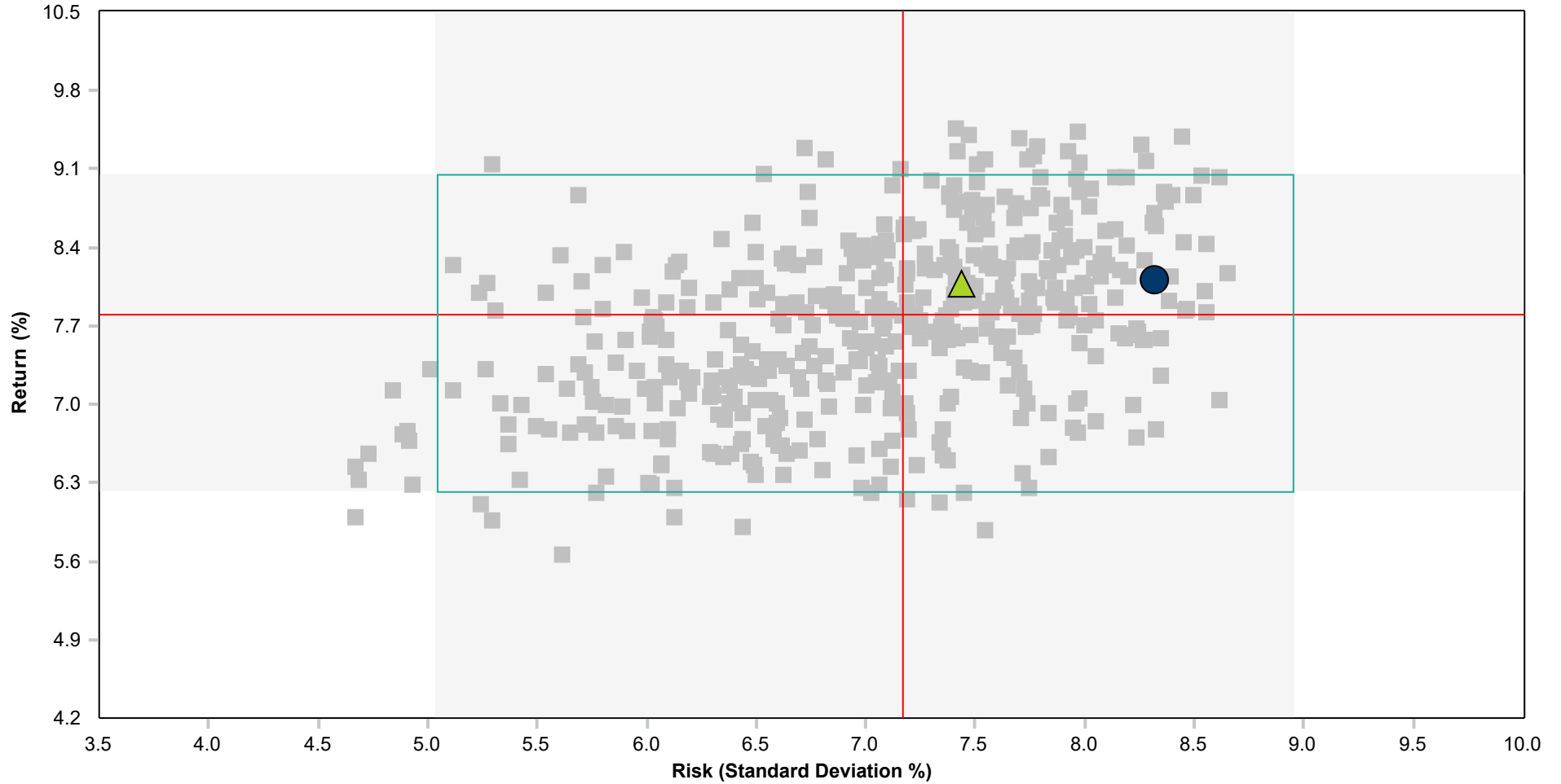
	1 Year	3 Years	5 Years
Total Fund Composite	0.06 (87)	0.80 (78)	0.63 (87)
Policy Index	0.16 (64)	0.88 (50)	0.71 (69)

5th Percentile	6.29	9.46	7.49	6.35	4.49	4.34	0.55	1.12	0.99
1st Quartile	4.78	8.35	6.72	9.62	6.40	6.39	0.29	0.95	0.84
Median	4.00	7.79	6.19	10.86	7.17	7.12	0.20	0.88	0.76
3rd Quartile	3.12	7.05	5.61	11.85	7.77	7.69	0.12	0.80	0.69
95th Percentile	1.50	5.61	4.37	13.21	8.68	8.63	-0.01	0.68	0.56

Parenteses contain percentile rankings.
Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund Composite vs All Public Plans-Total Fund
 Periods Ended October 1, 2016 To September 30, 2019

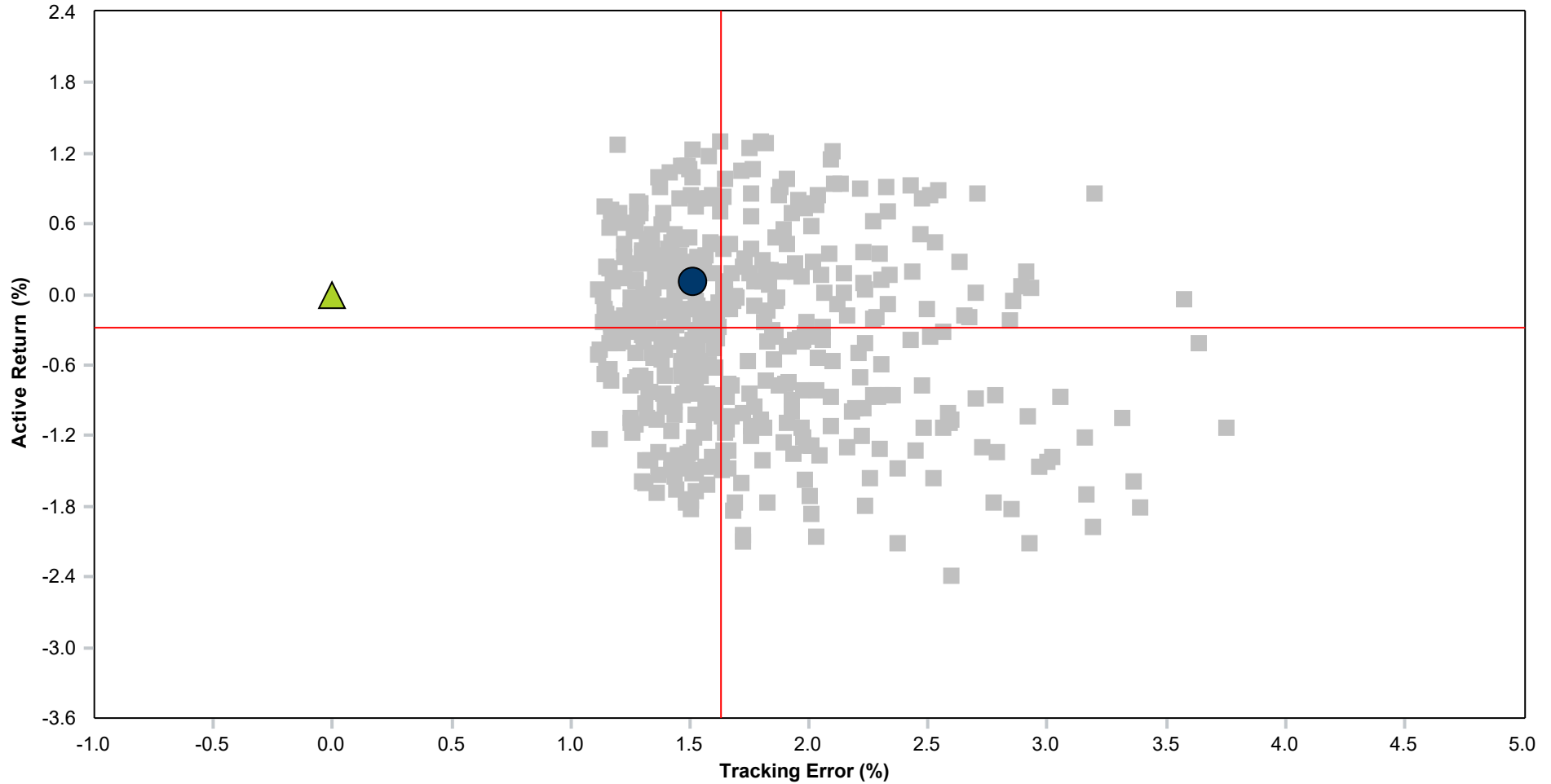


	Return	Standard Deviation
● Total Fund Composite	8.10	8.32
▲ Policy Index	8.07	7.44
— Median	7.79	7.17

Calculation based on monthly periodicity.

Plan Sponsor Scattergram

Total Fund Composite vs All Public Plans-Total Fund
 Periods Ended October 1, 2016 To September 30, 2019



	Active Return	Tracking Error
● Total Fund Composite	0.10	1.52
▲ Policy Index	0.00	0.00
— Median	-0.28	1.63

Calculation based on monthly periodicity.



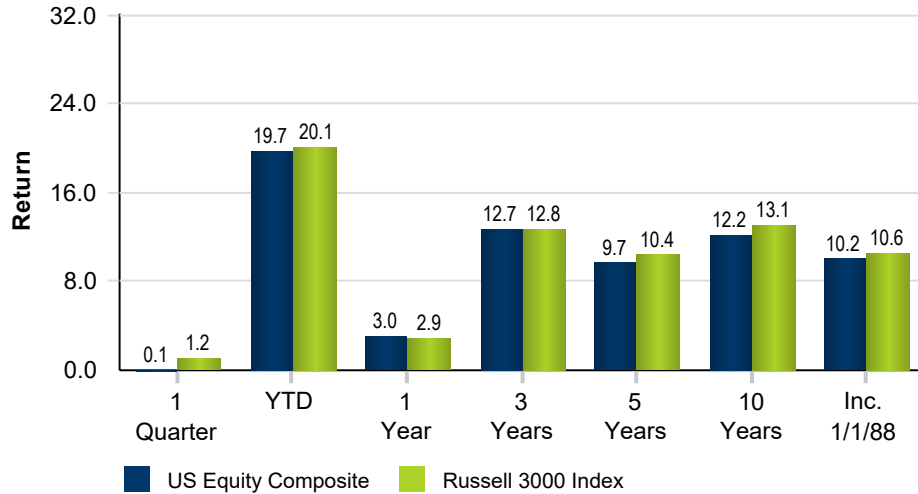
US Equity Composite

Composite Performance Summary

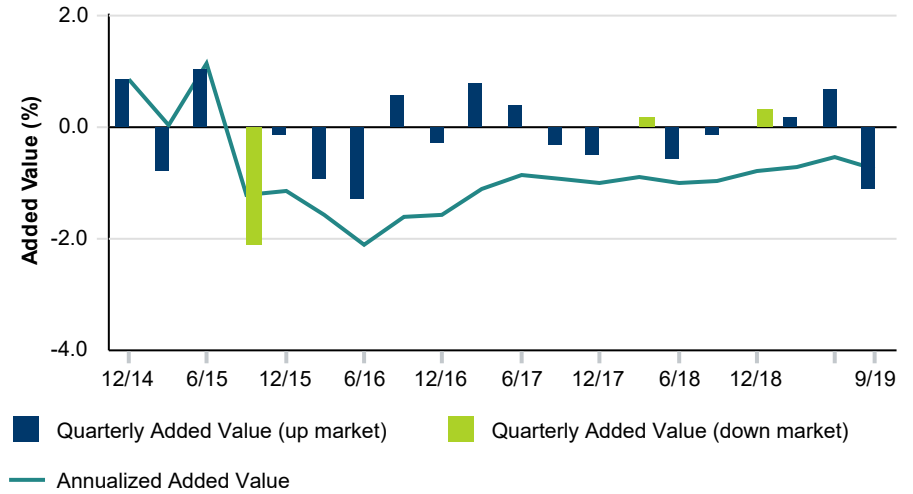
US Equity Composite

Periods Ended September 30, 2019

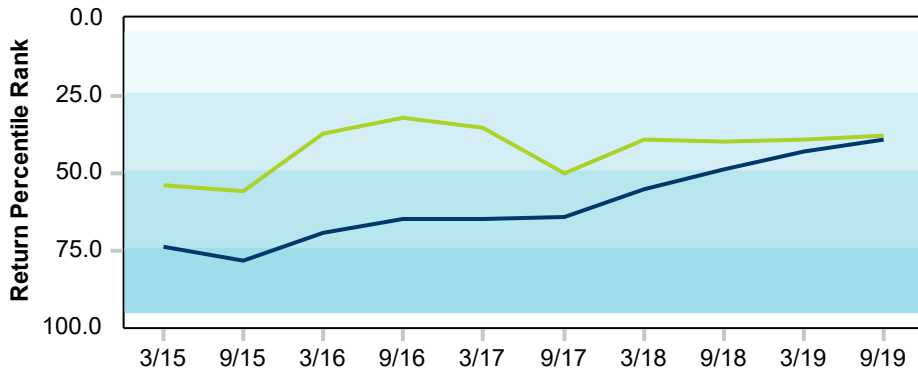
Comparative Performance



Added Value History

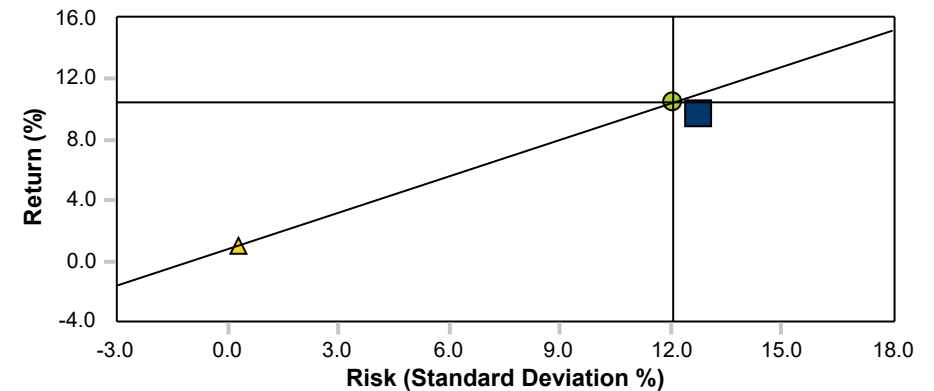


Rolling Percentile Rank: IM U.S. Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
US Equity Composite	10	0 (0%)	3 (30%)	6 (60%)	1 (10%)
Benchmark	10	0 (0%)	8 (80%)	2 (20%)	0 (0%)

Risk and Return 10/1/14 - 09/30/19



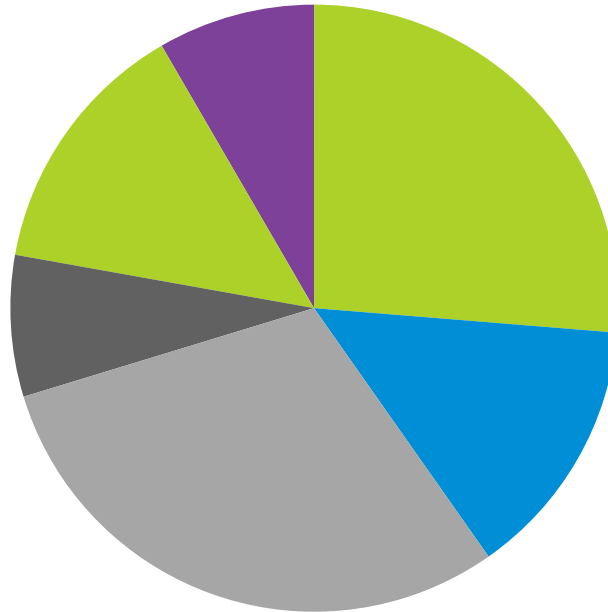
- US Equity Composite (Blue square)
- Russell 3000 Index (Green circle)
- 90 Day US Treasury Bill (Yellow triangle)

Asset Allocation By Manager

US Equity Composite

Periods Ended September 30, 2019

Sep-2019 : 753,422,871

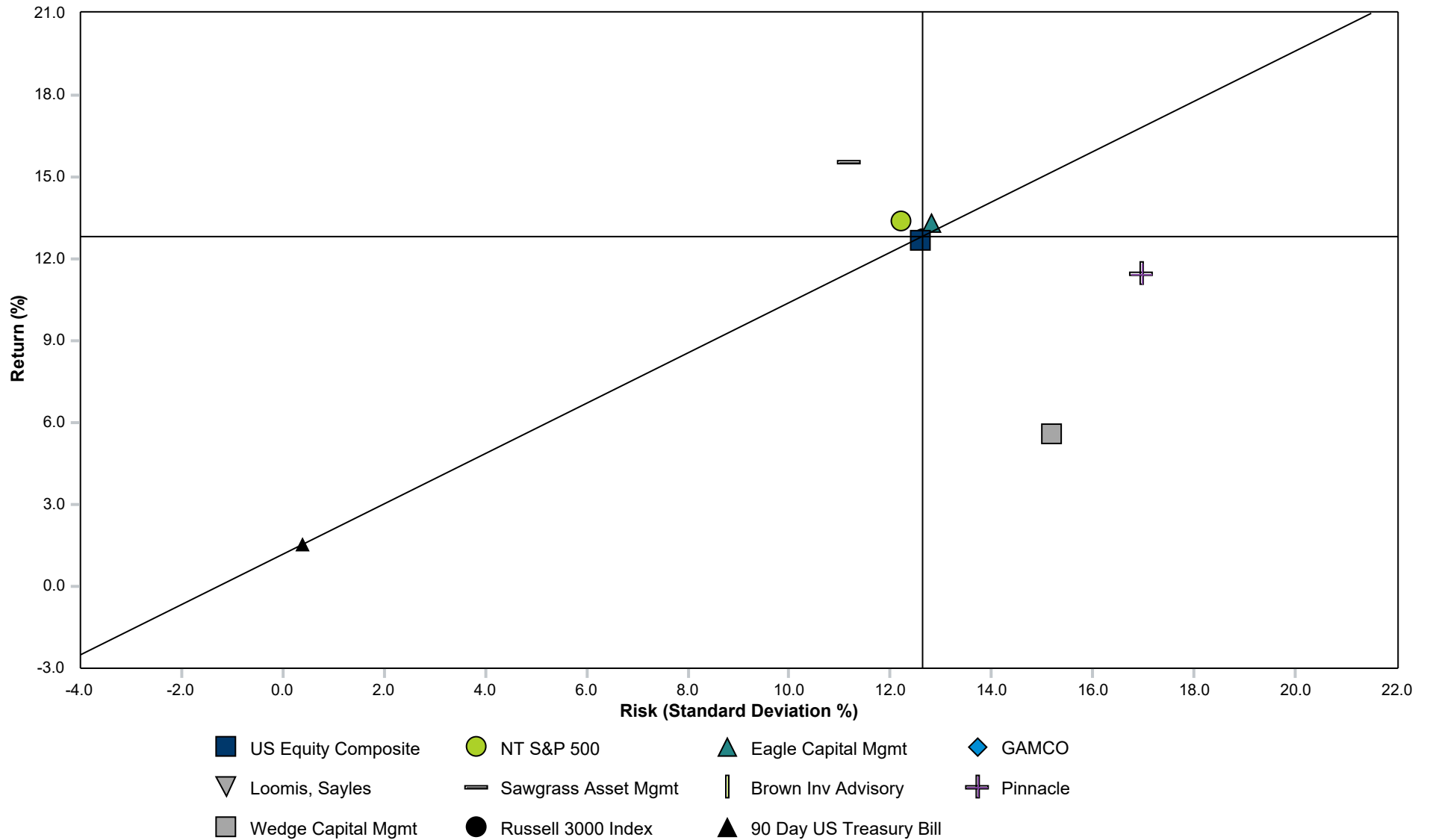


	Market Value \$	Allocation (%)
■ Brown Inv Advisory	13,393	0.0
■ Eagle Capital Mgmt	198,023,515	26.3
■ GAMCO	17,489	0.0
■ Loomis, Sayles	105,255,921	14.0
■ NT S&P 500	226,266,866	30.0
■ Pinnacle	56,716,662	7.5
■ Sawgrass Asset Mgmt	104,076,909	13.8
■ Wedge Capital Mgmt	63,052,117	8.4

Risk vs. Return

US Equity Composite

Periods Ended 3 Years Ending September 30, 2019



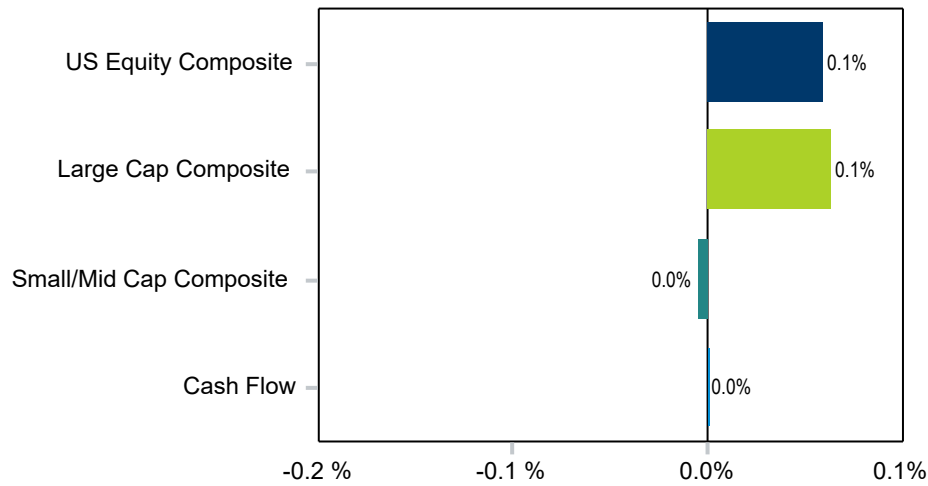
Calculation based on quarterly periodicity.

Return and Risk Contribution

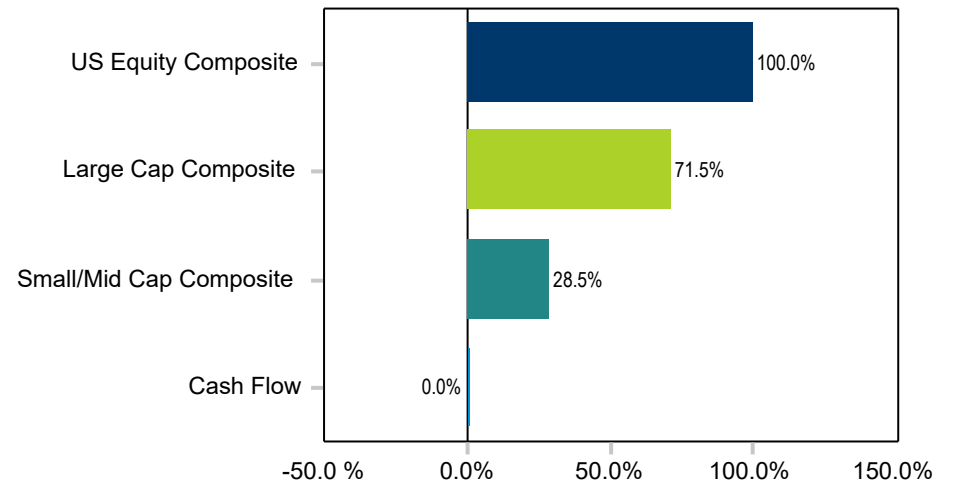
US Equity Composite

Periods Ended September 30, 2019

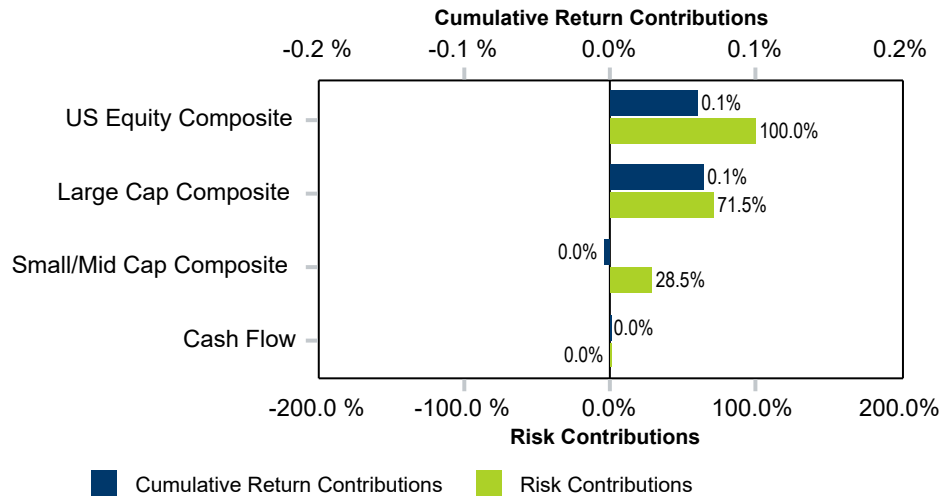
Cumulative Return Contributions



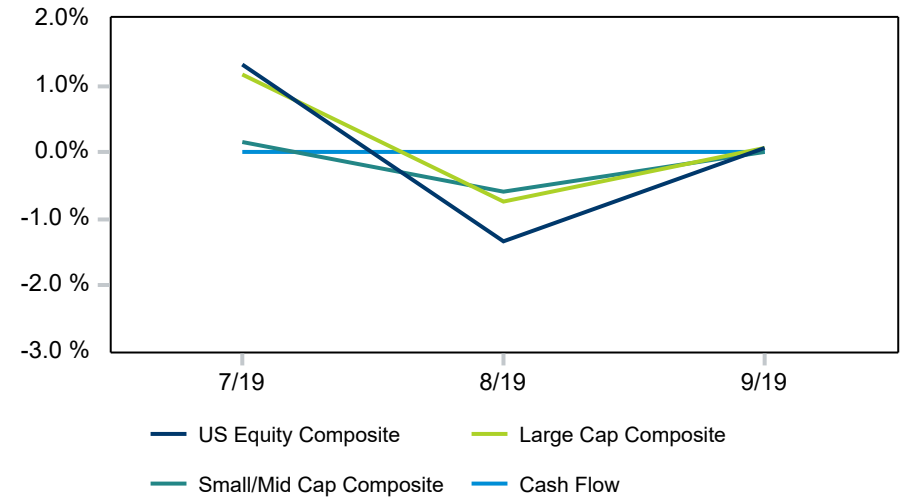
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History

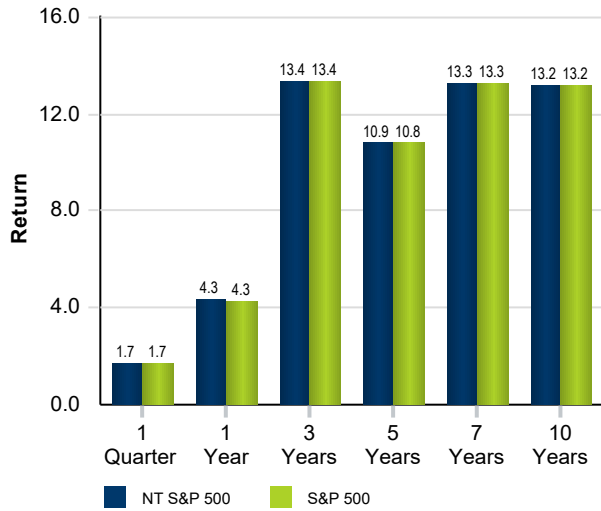


Performance Summary

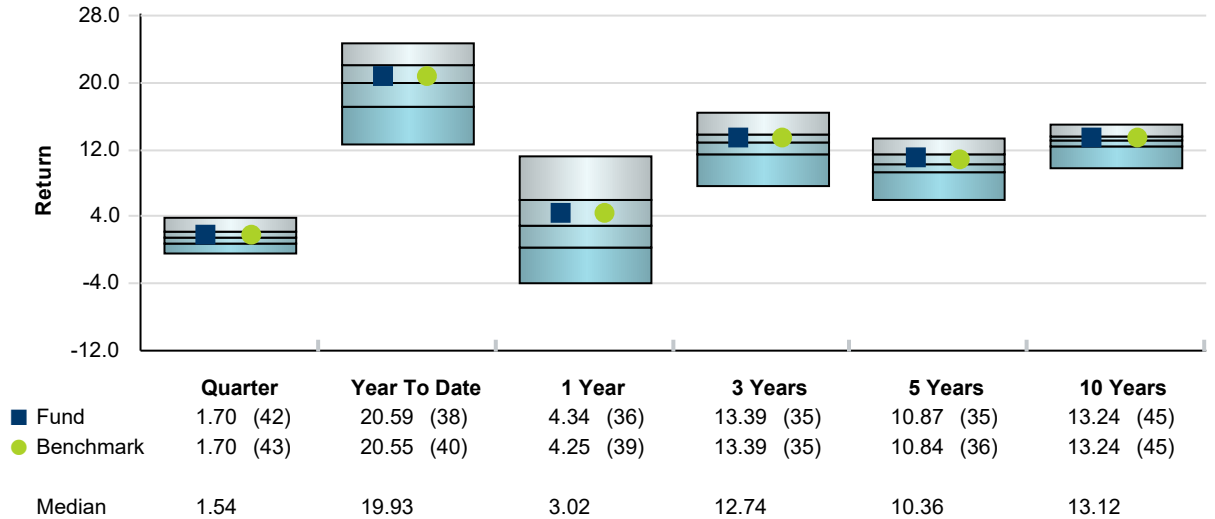
NT S&P 500

Periods Ended September 30, 2019

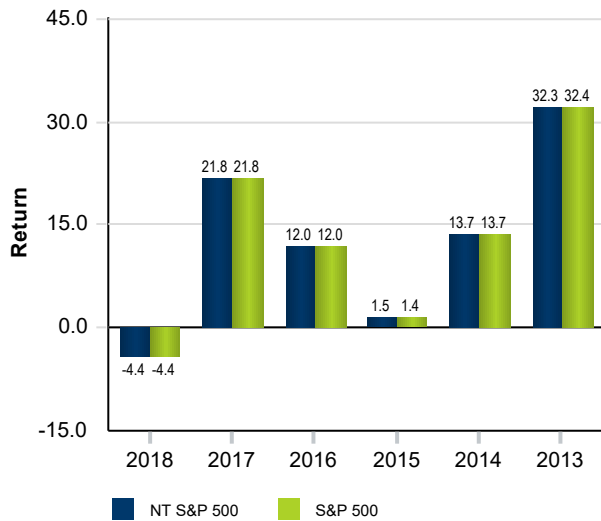
Comparative Performance



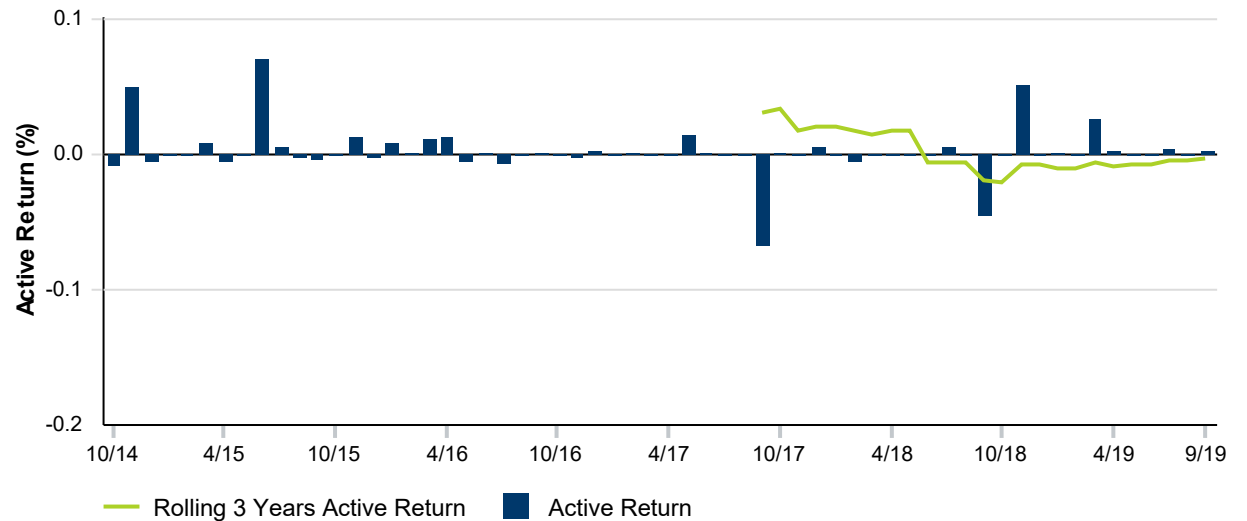
Peer Group Analysis: IM U.S. Large Cap Core Equity (SA+CF)



Comparative Performance

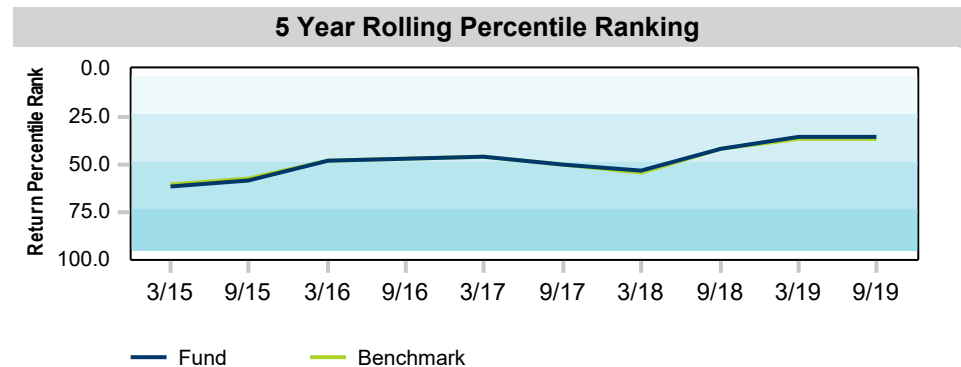
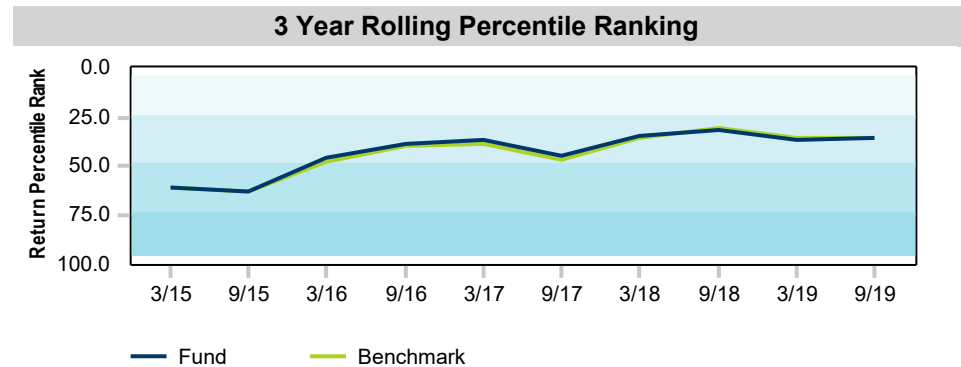
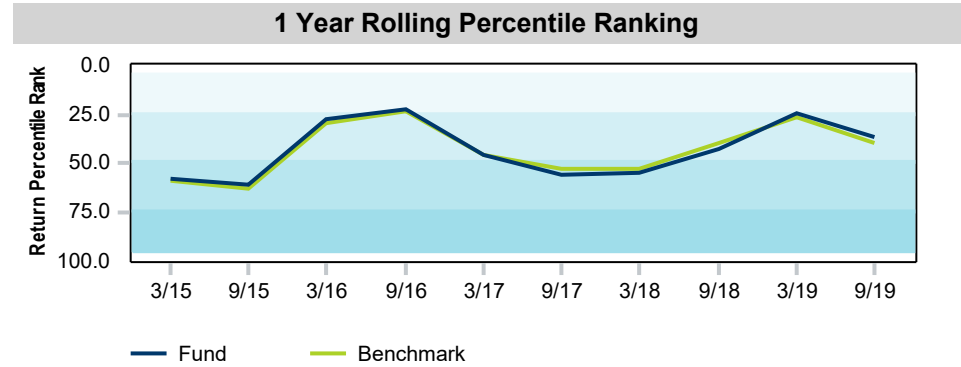
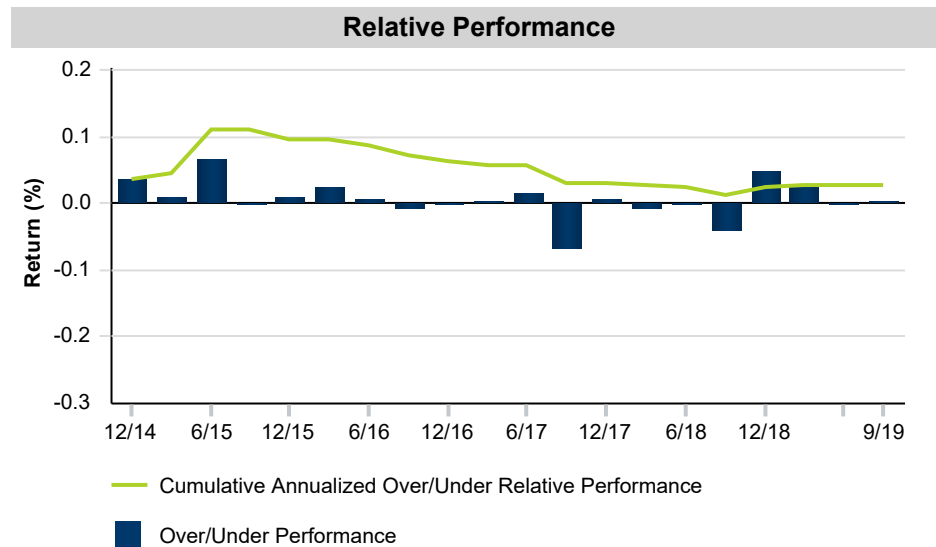
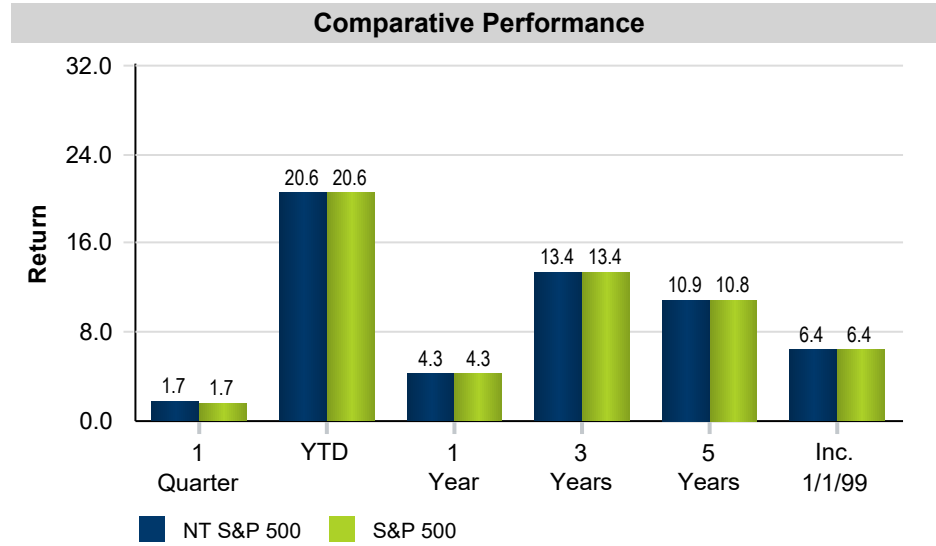


Rolling 3 Years Performance



Manager Summary

NT S&P 500 vs IM U.S. Large Cap Core Equity (SA+CF)
 Periods Ended September 30, 2019

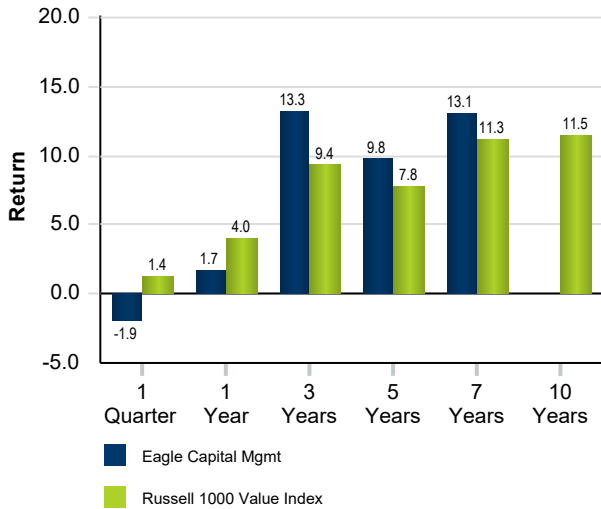


Performance Summary

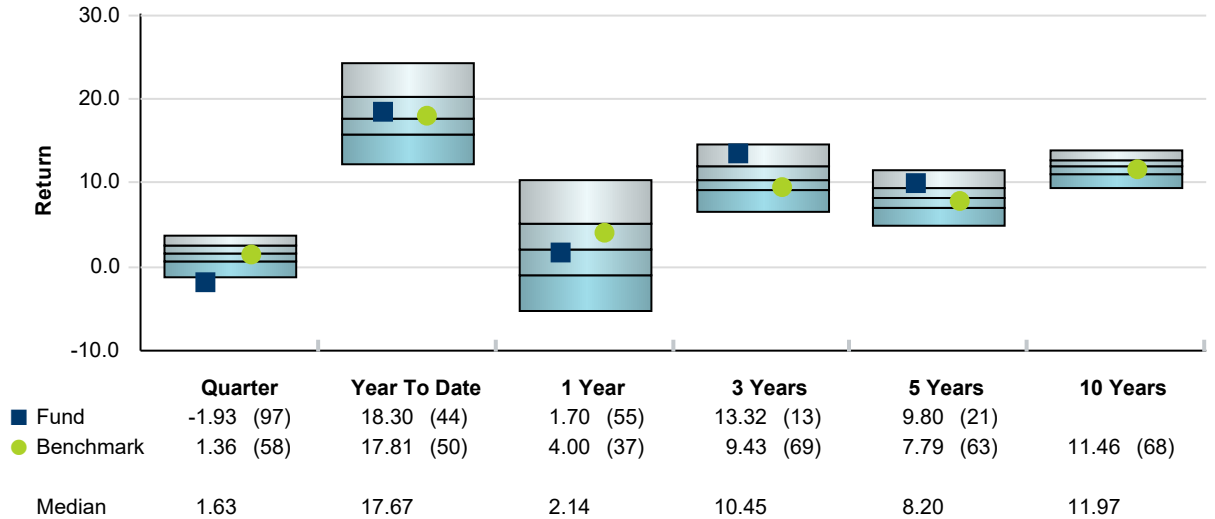
Eagle Capital Mgmt

Periods Ended September 30, 2019

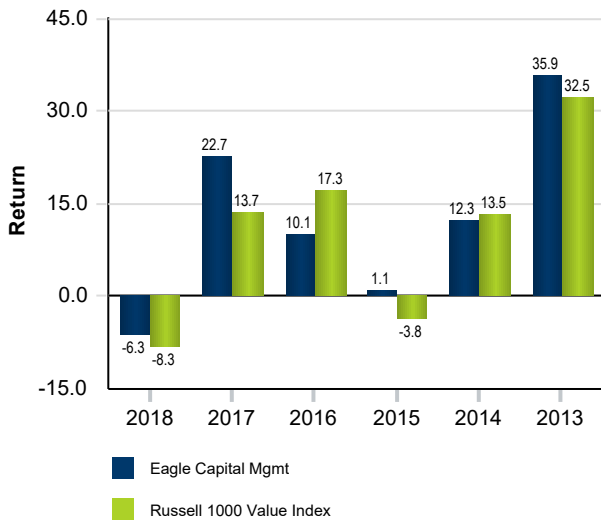
Comparative Performance



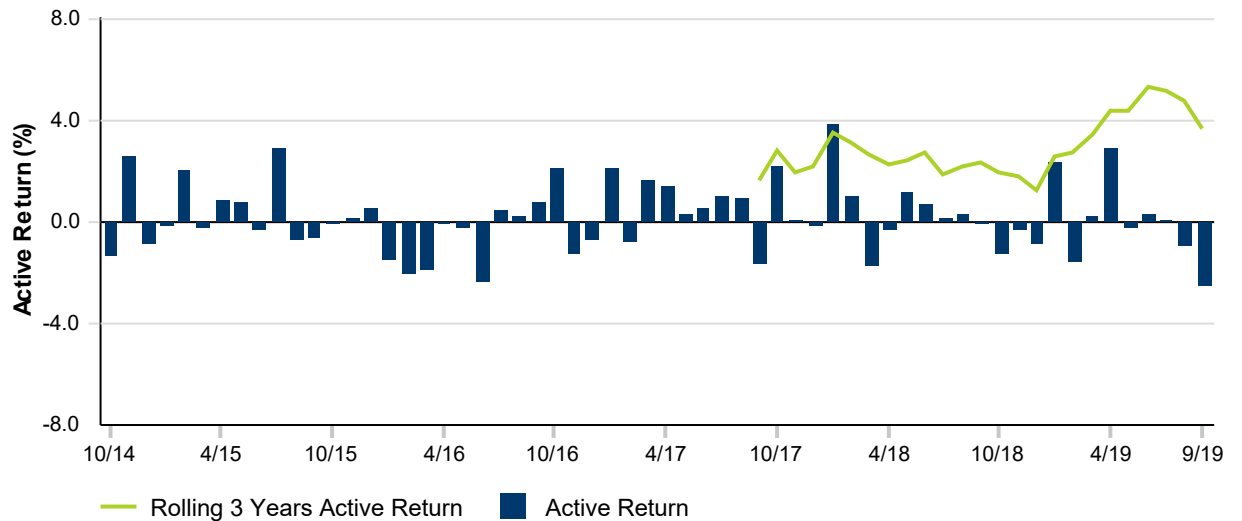
Peer Group Analysis: IM U.S. Large Cap Value Equity (SA+CF)



Comparative Performance

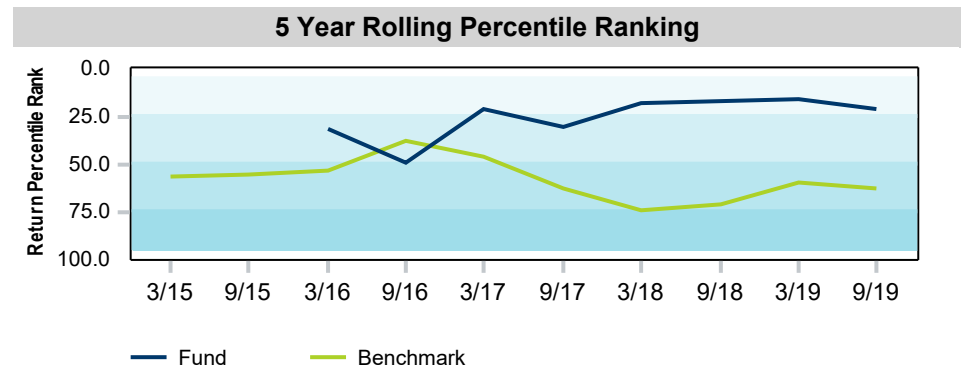
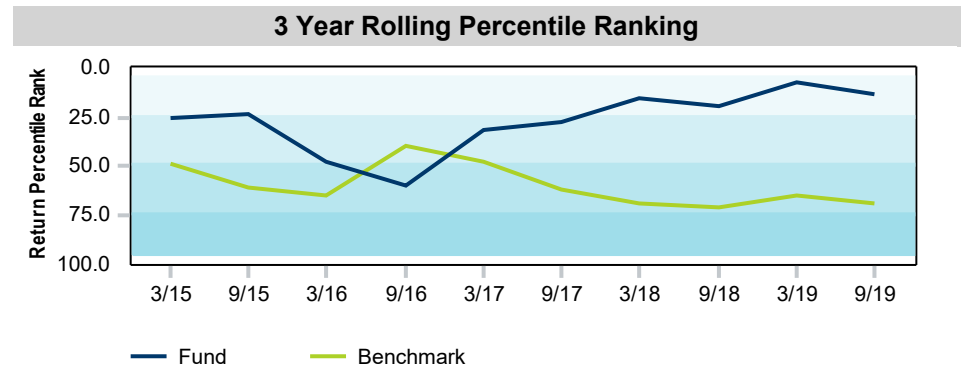
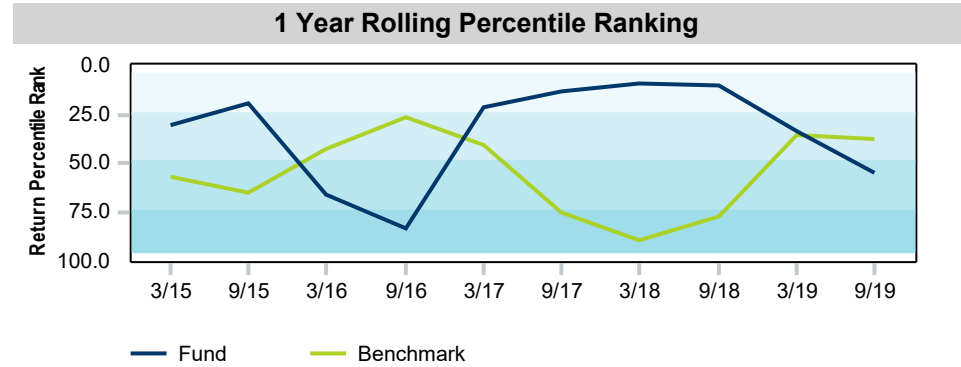
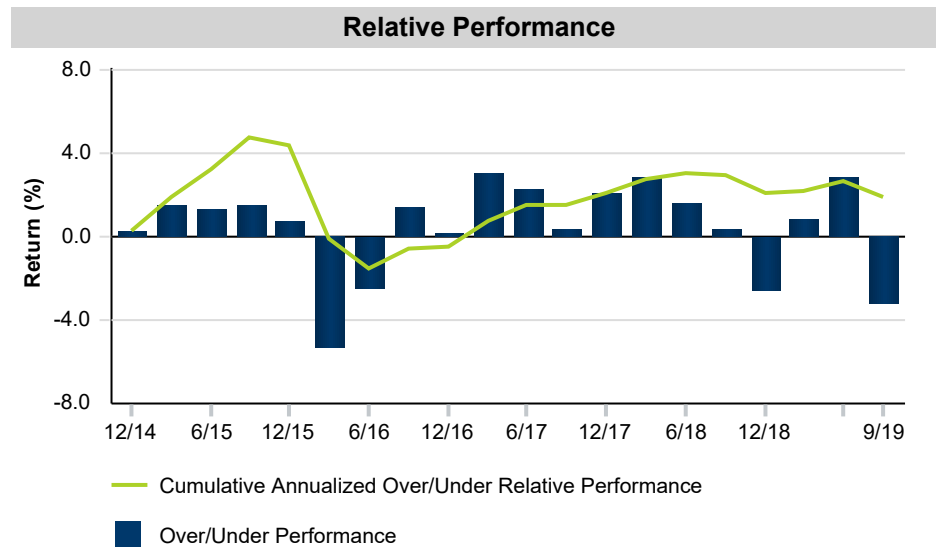
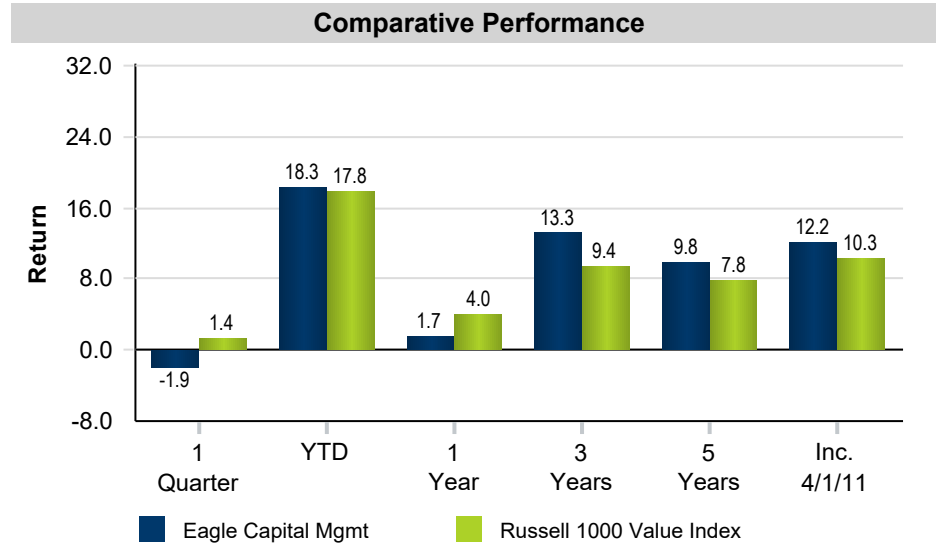


Rolling 3 Years Performance



Manager Summary

Eagle Capital Mgmt vs IM U.S. Large Cap Value Equity (SA+CF)
 Periods Ended September 30, 2019

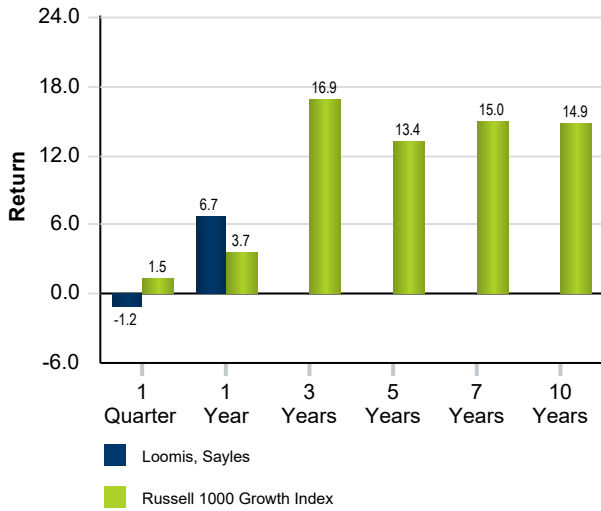


Performance Summary

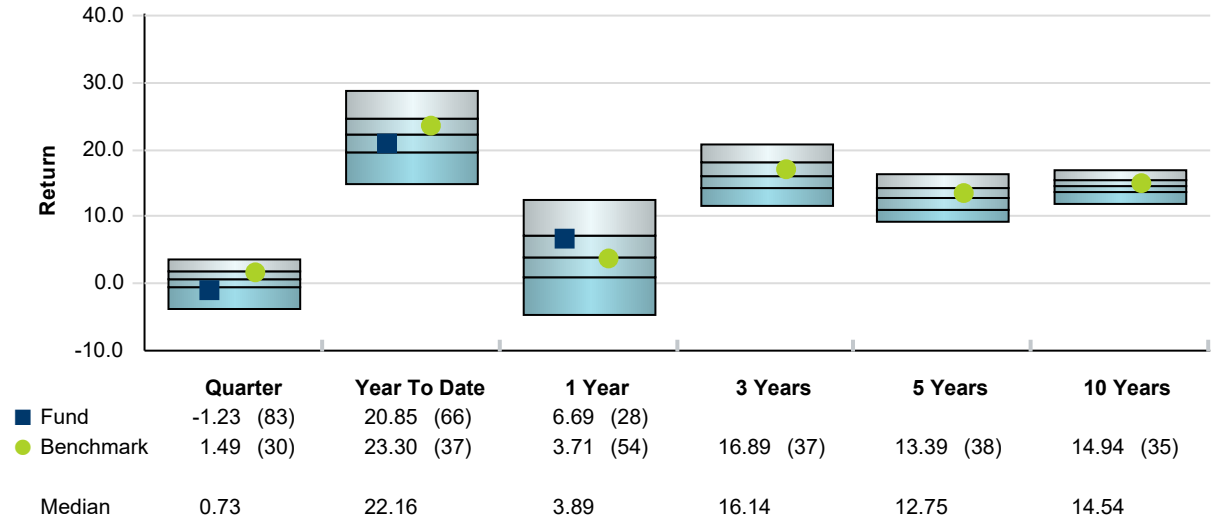
Loomis, Sayles

Periods Ended September 30, 2019

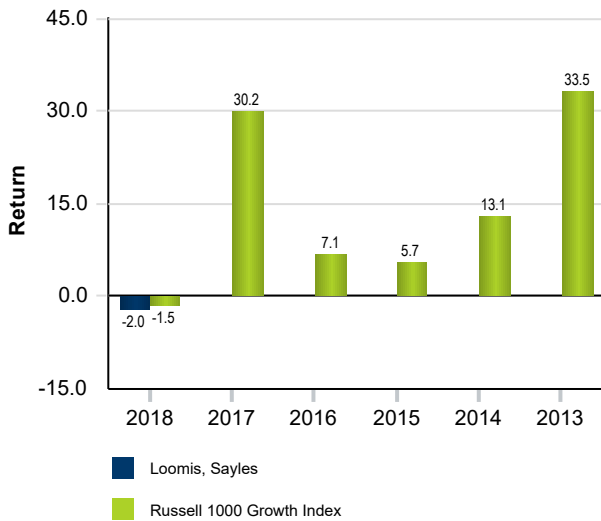
Comparative Performance



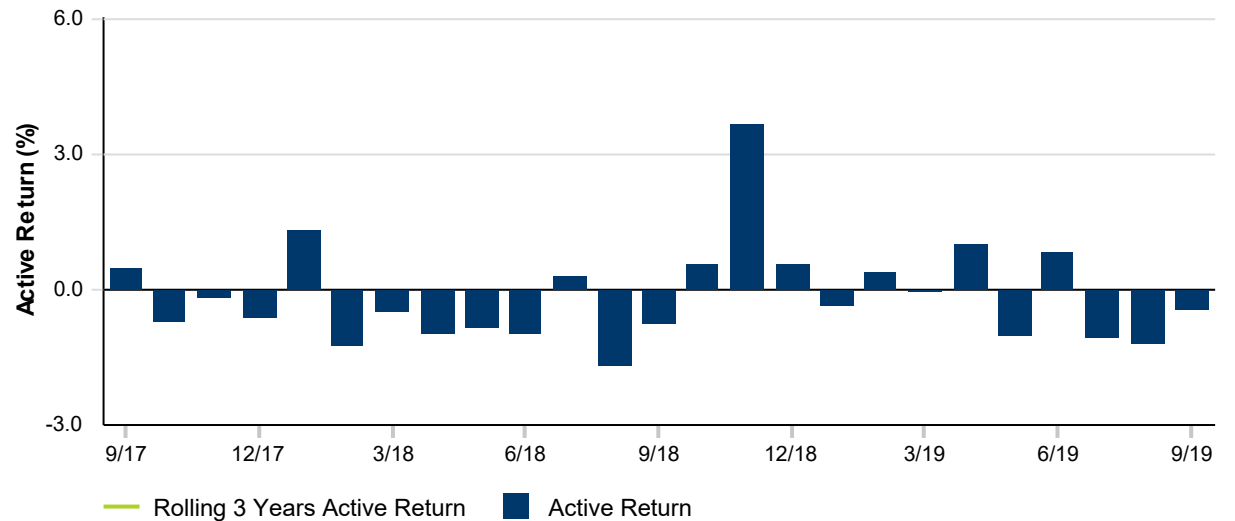
Peer Group Analysis: IM U.S. Large Cap Growth Equity (SA+CF)



Comparative Performance

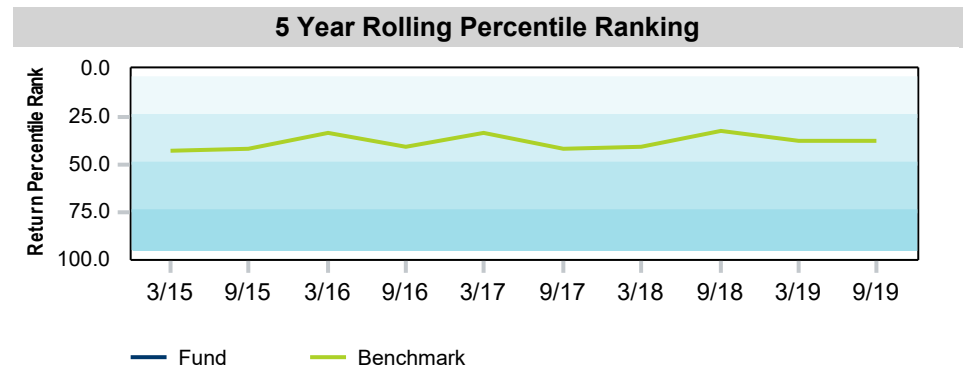
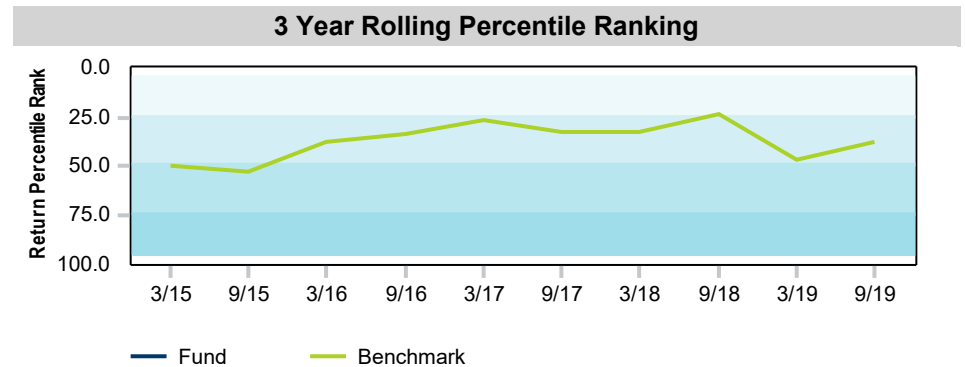
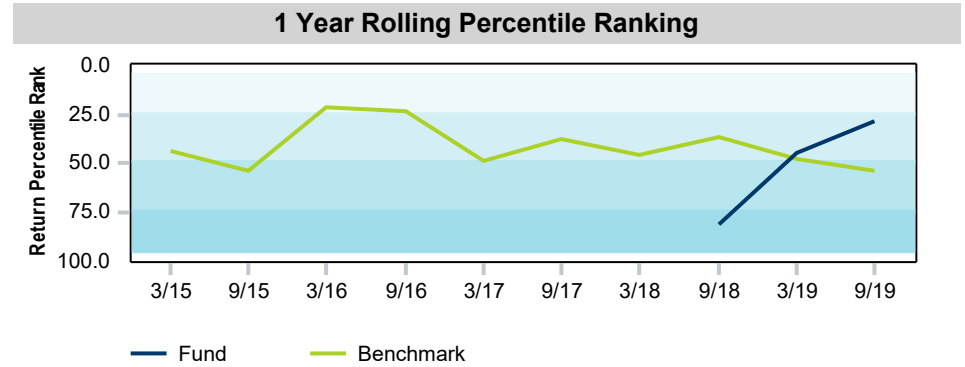
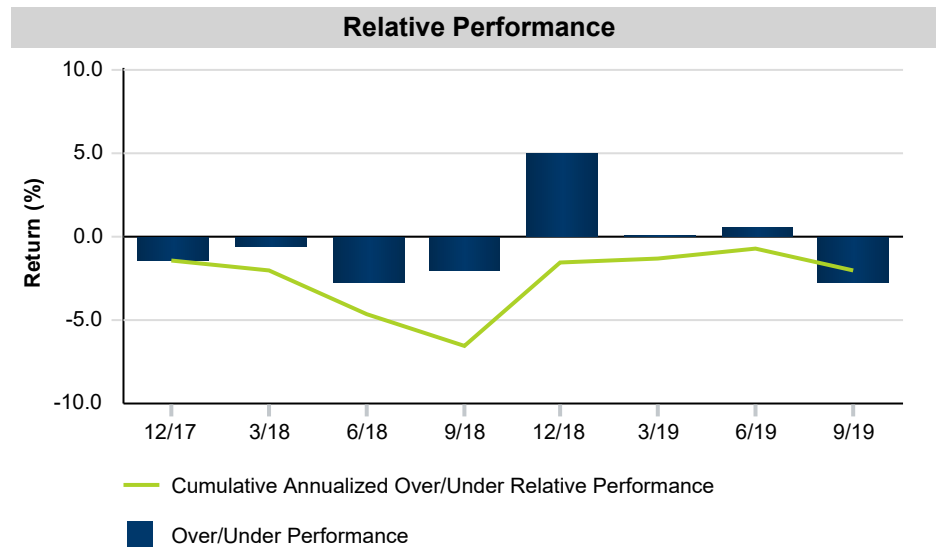
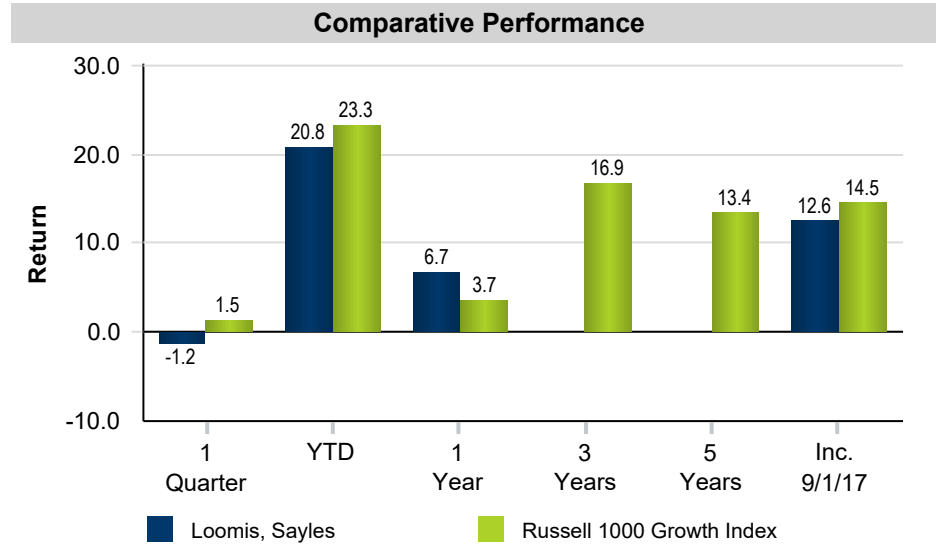


Rolling 3 Years Performance



Manager Summary

Loomis, Sayles vs IM U.S. Large Cap Growth Equity (SA+CF)
 Periods Ended September 30, 2019

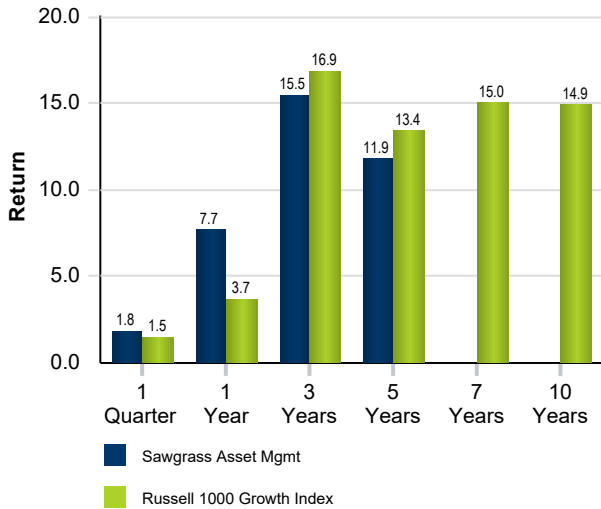


Performance Summary

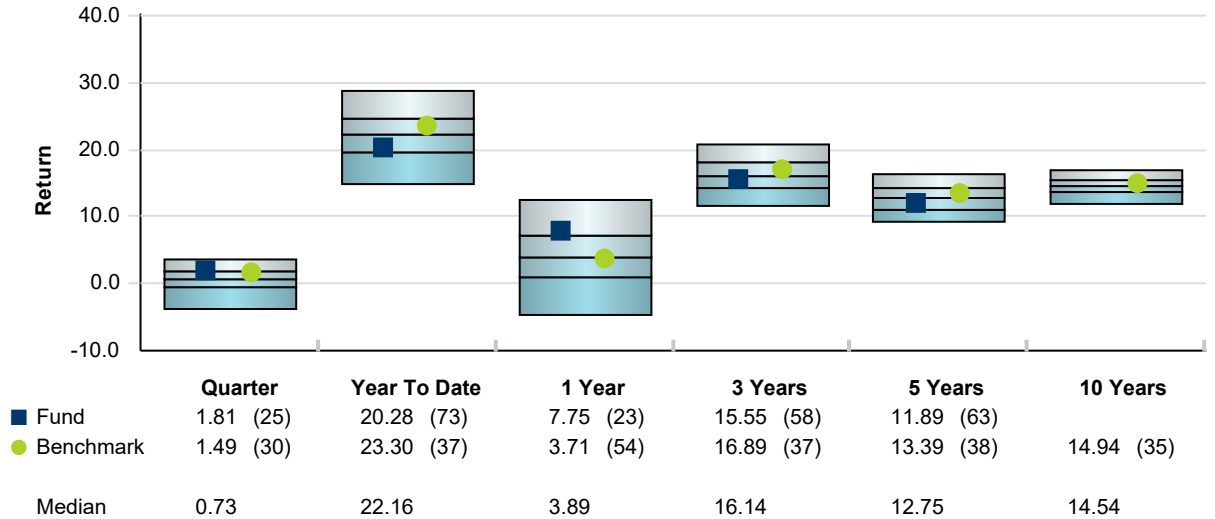
Sawgrass Asset Mgmt

Periods Ended September 30, 2019

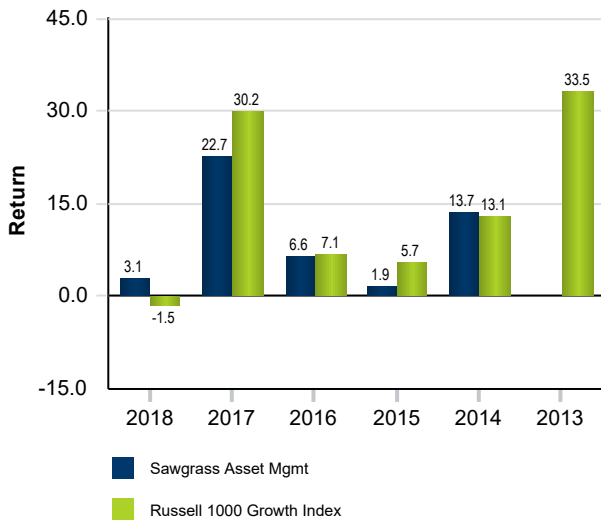
Comparative Performance



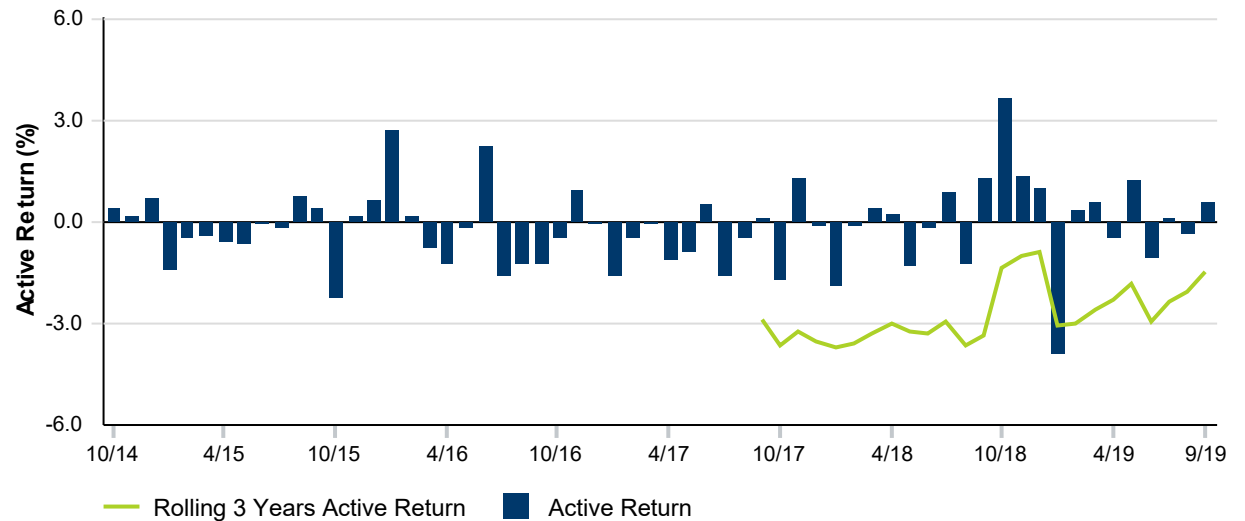
Peer Group Analysis: IM U.S. Large Cap Growth Equity (SA+CF)



Comparative Performance



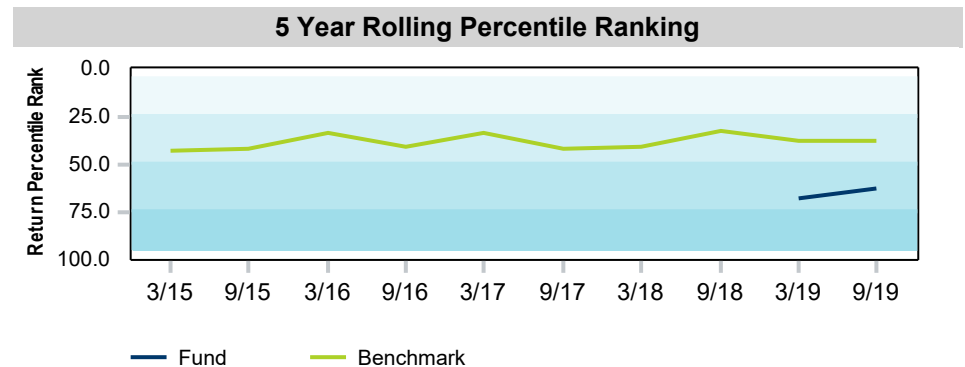
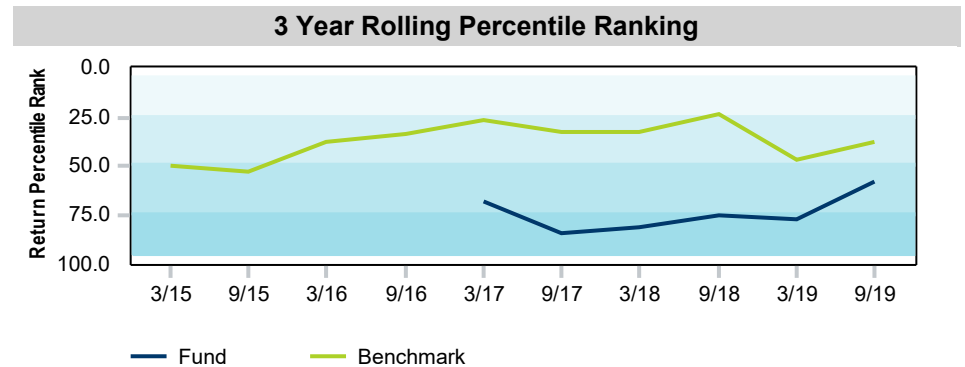
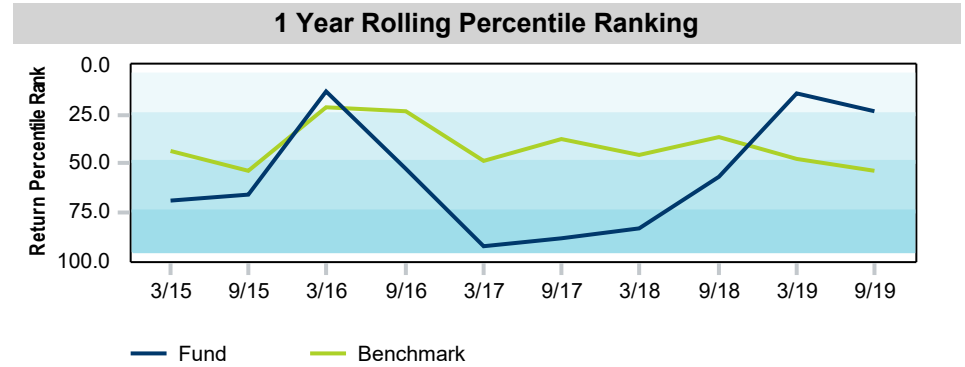
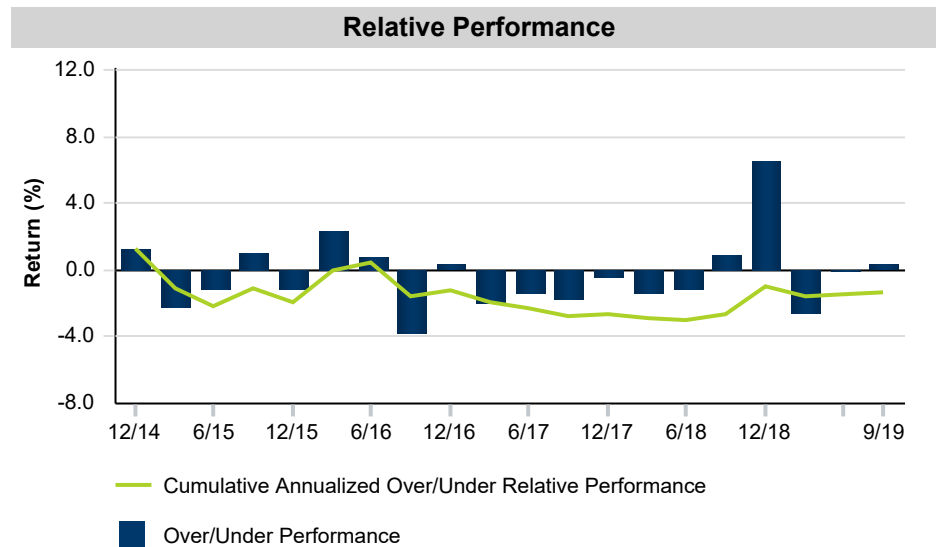
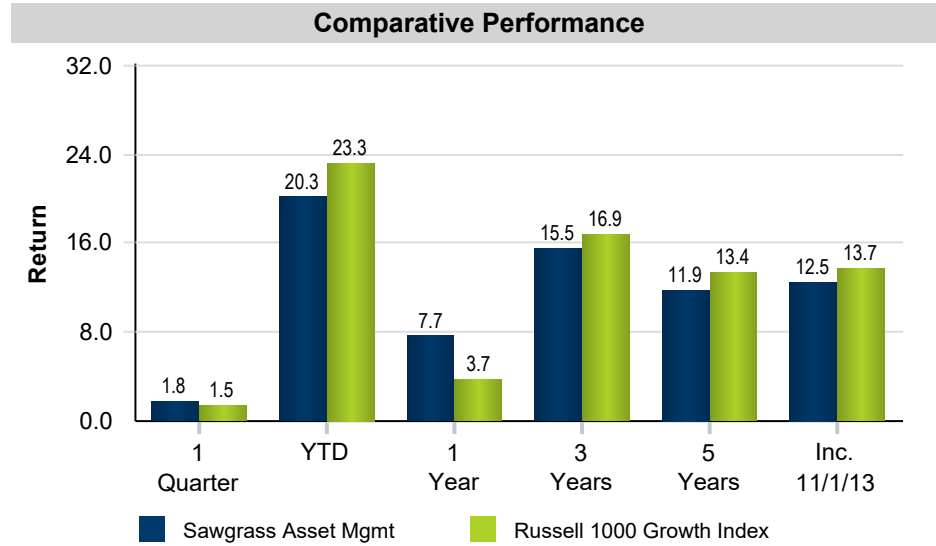
Rolling 3 Years Performance



Manager Summary

Sawgrass Asset Mgmt vs IM U.S. Large Cap Growth Equity (SA+CF)

Periods Ended September 30, 2019

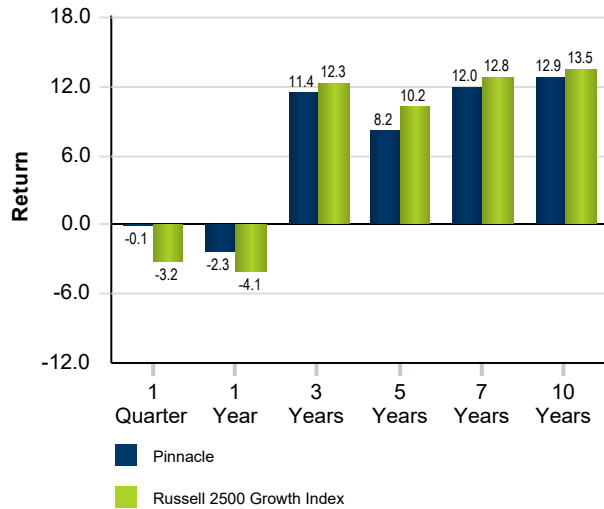


Performance Summary

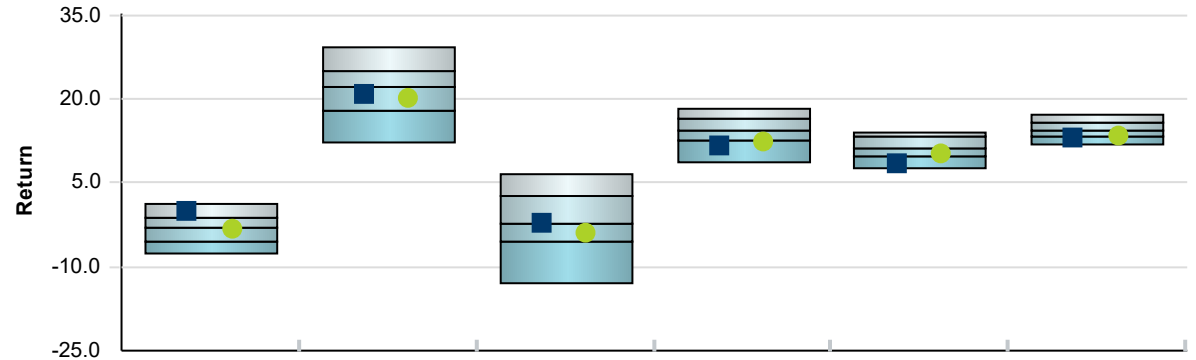
Pinnacle

Periods Ended September 30, 2019

Comparative Performance

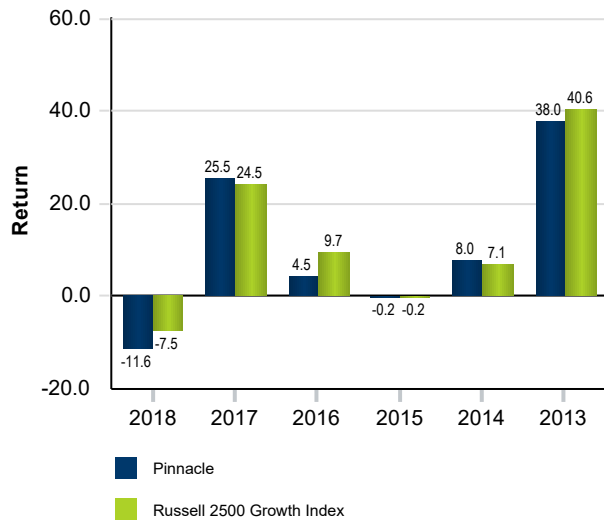


Peer Group Analysis: IM U.S. SMID Cap Growth Equity (SA+CF)

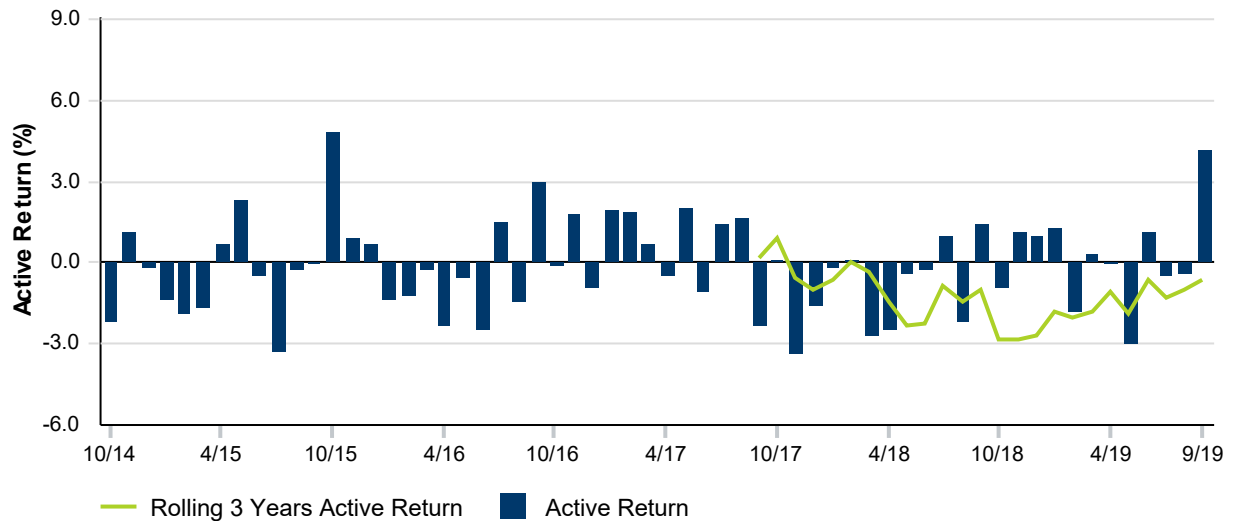


	Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years
Fund	-0.05 (15)	20.87 (55)	-2.28 (50)	11.45 (84)	8.24 (88)	12.91 (85)
Benchmark	-3.18 (54)	19.97 (58)	-4.11 (61)	12.33 (80)	10.22 (67)	13.48 (71)
Median	-3.01	22.06	-2.36	14.47	11.17	14.44

Comparative Performance

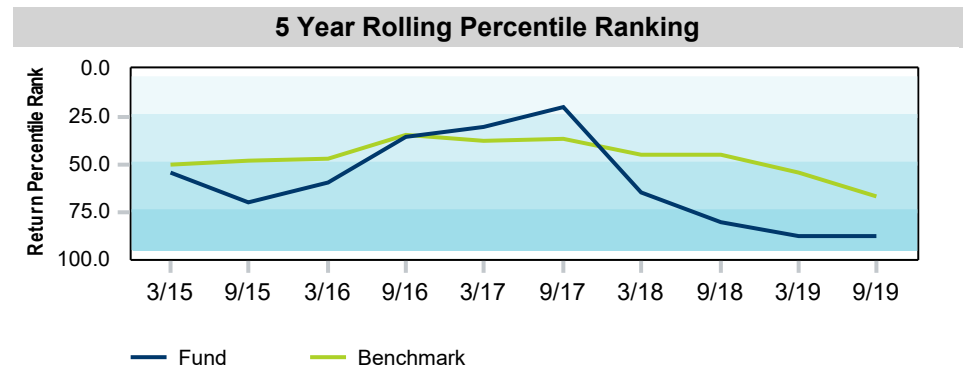
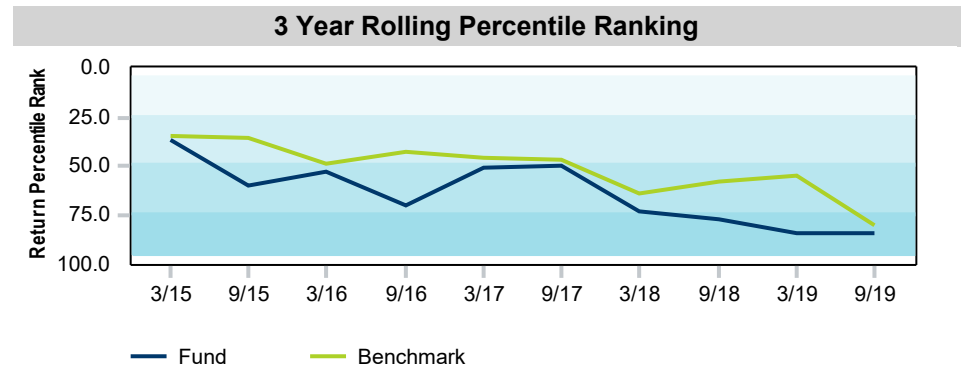
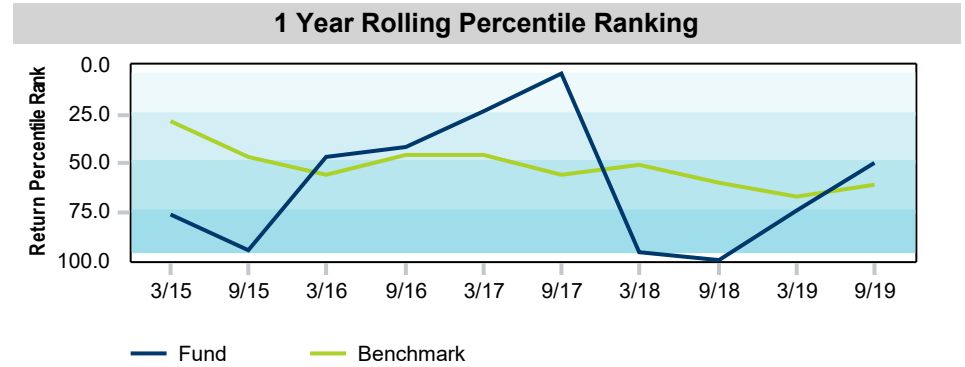
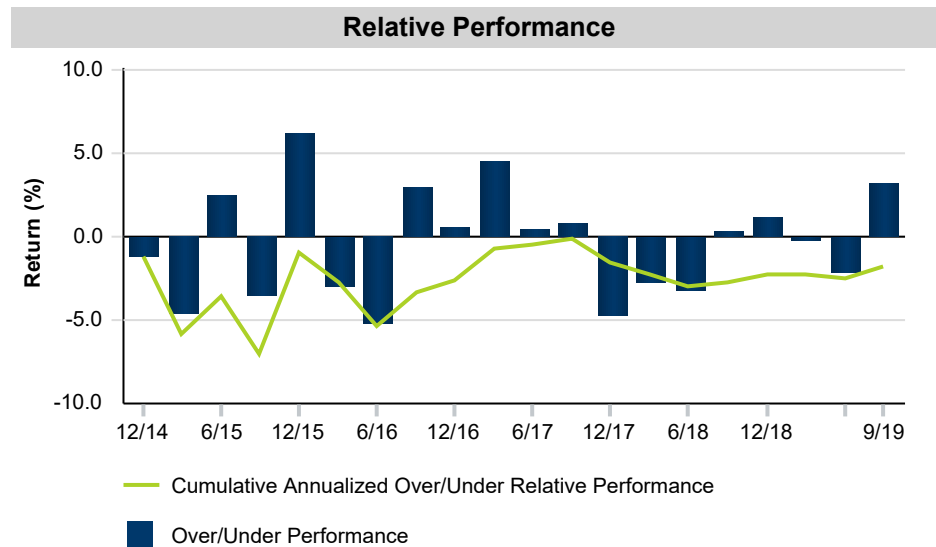
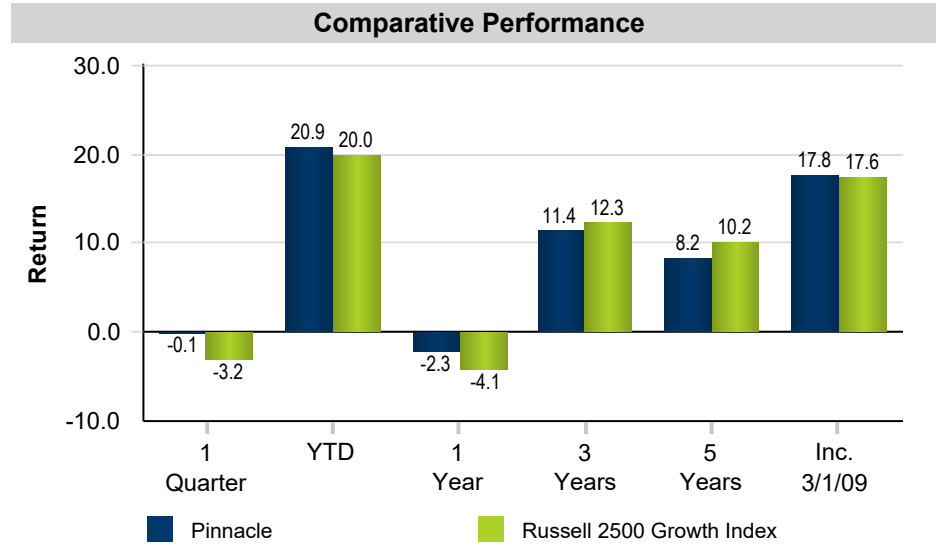


Rolling 3 Years Performance



Manager Summary

Pinnacle vs IM U.S. SMID Cap Growth Equity (SA+CF)
 Periods Ended September 30, 2019

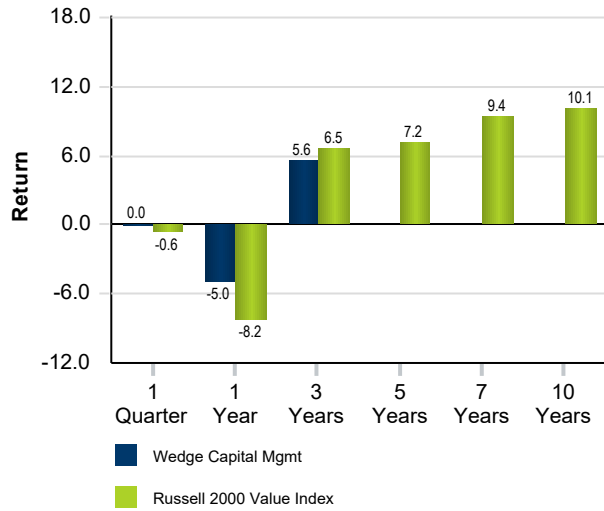


Performance Summary

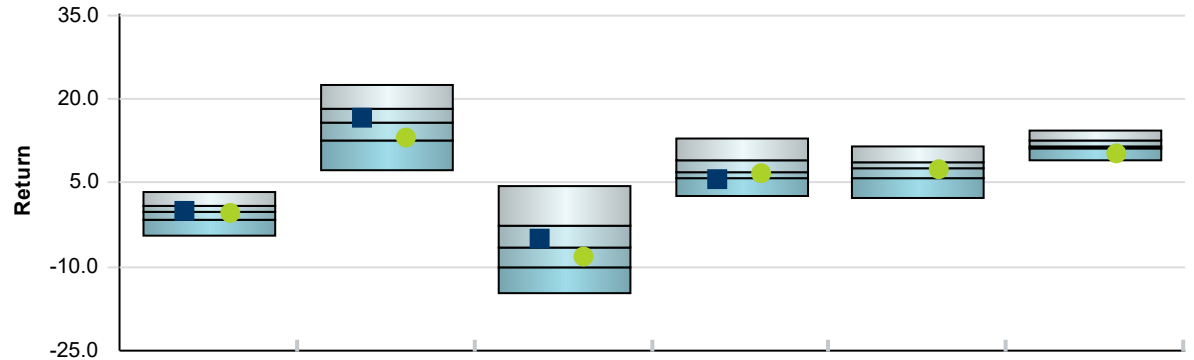
Wedge Capital Mgmt

Periods Ended September 30, 2019

Comparative Performance

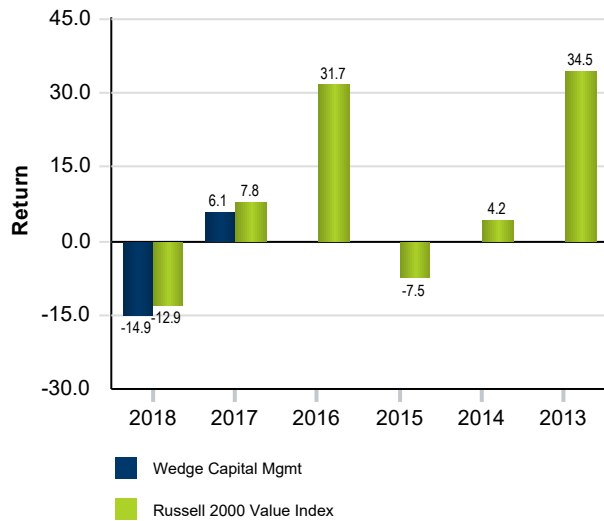


Peer Group Analysis: IM U.S. Small Cap Value Equity (SA+CF)

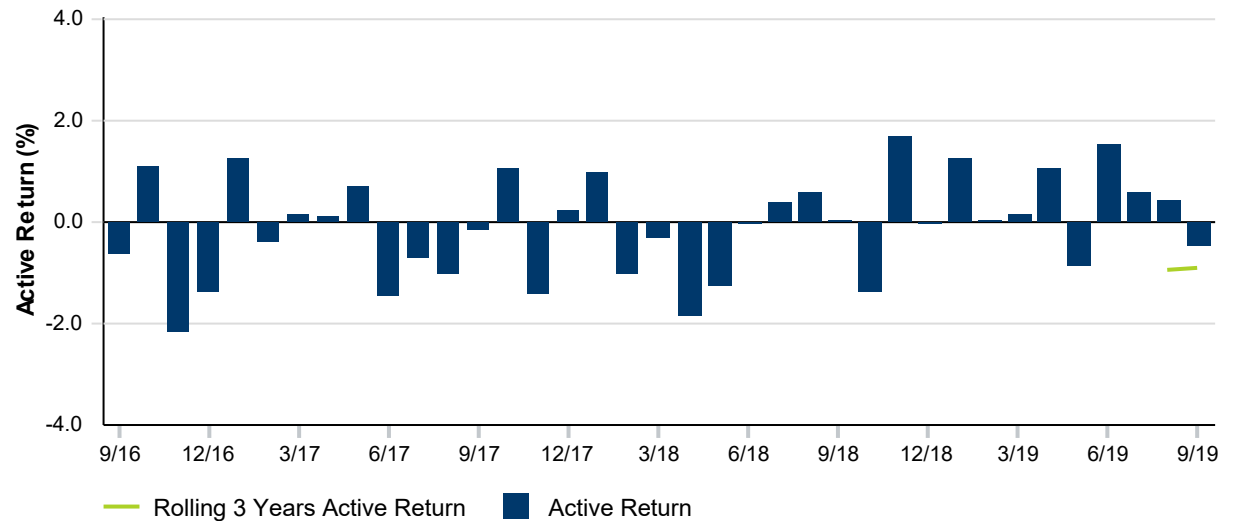


	Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years
Fund	0.00 (44)	16.70 (40)	-5.00 (38)	5.55 (80)		
Benchmark	-0.57 (58)	12.82 (74)	-8.24 (62)	6.54 (63)	7.17 (60)	10.06 (90)
Median	-0.27	15.73	-6.71	7.10	7.68	11.74

Comparative Performance

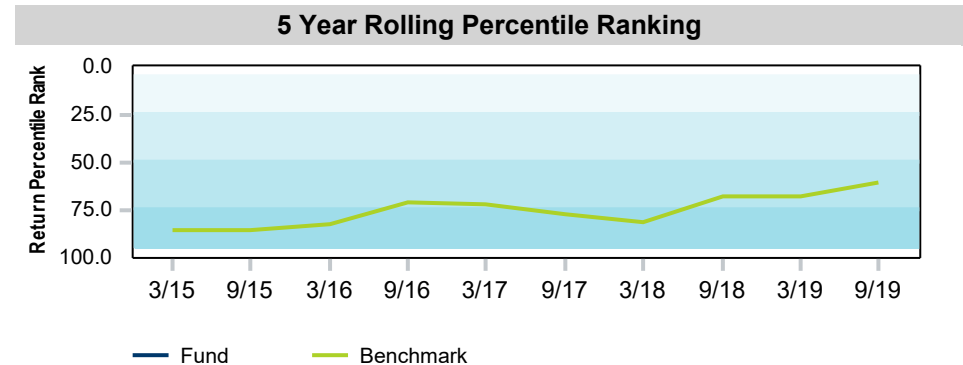
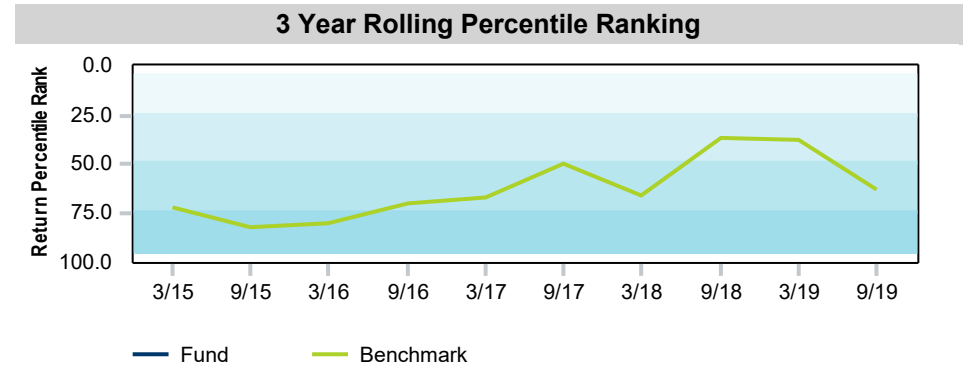
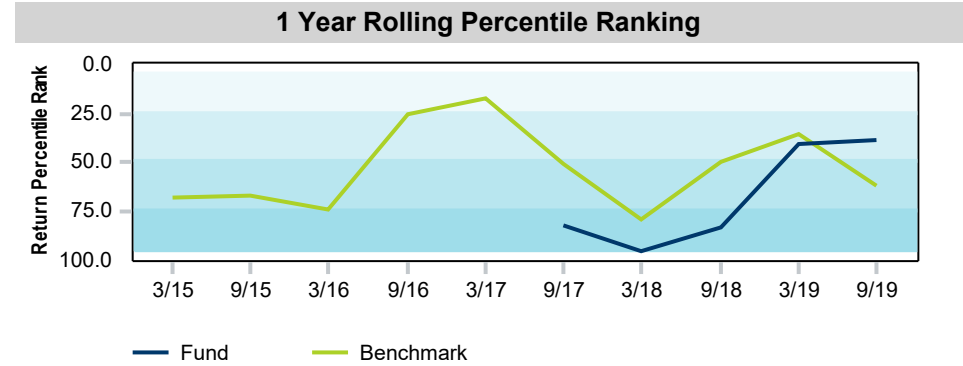
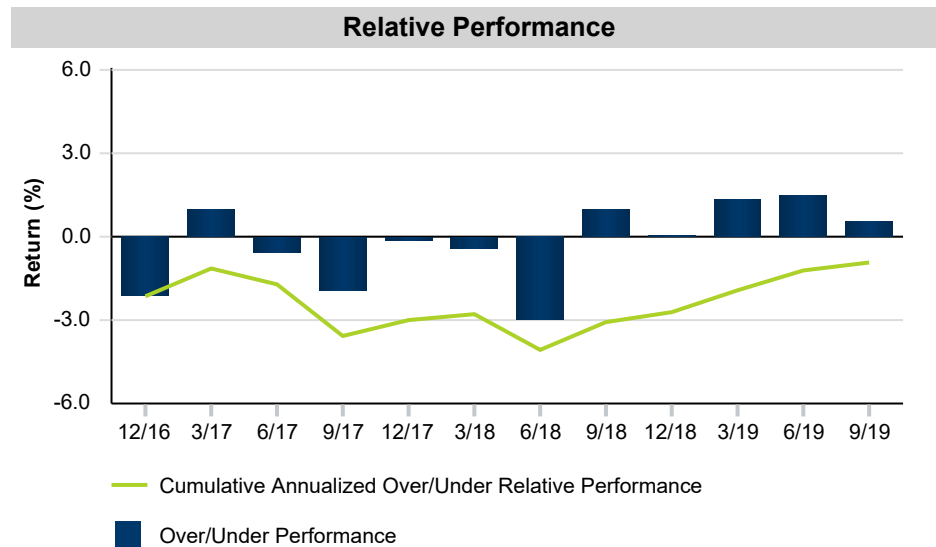
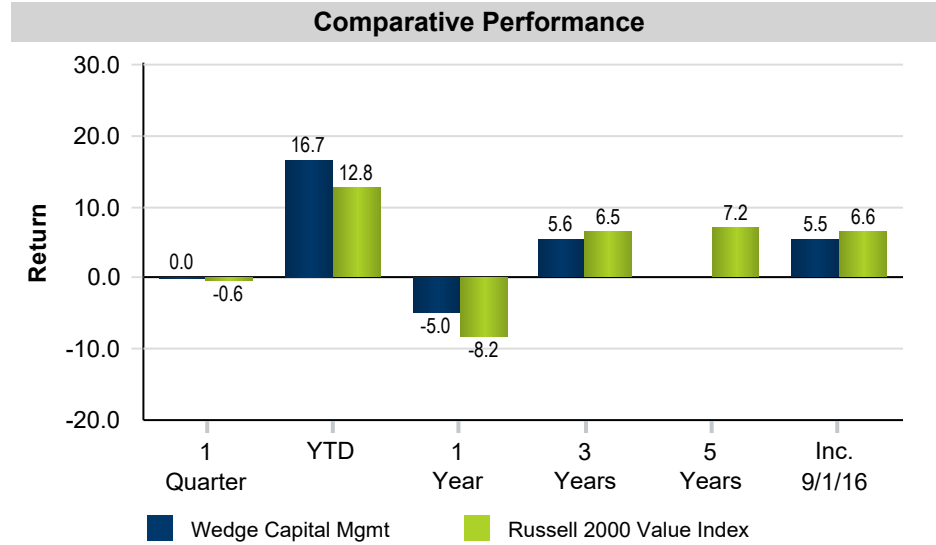


Rolling 3 Years Performance



Manager Summary

Wedge Capital Mgmt vs IM U.S. Small Cap Value Equity (SA+CF)
 Periods Ended September 30, 2019





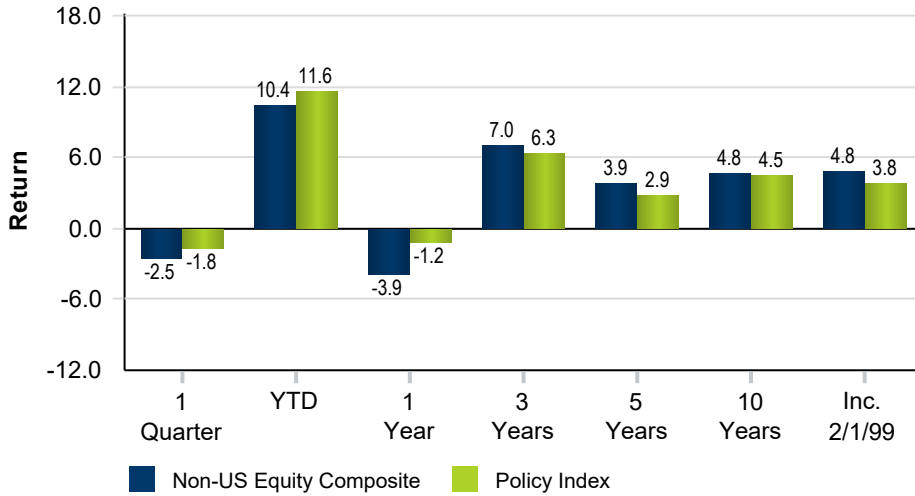
Non-US Equity Composite

Composite Performance Summary

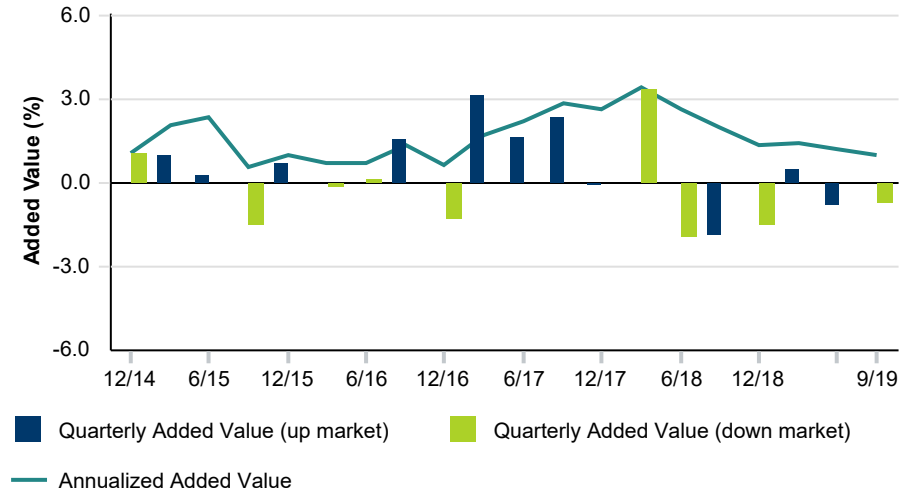
Non-US Equity Composite

Periods Ended September 30, 2019

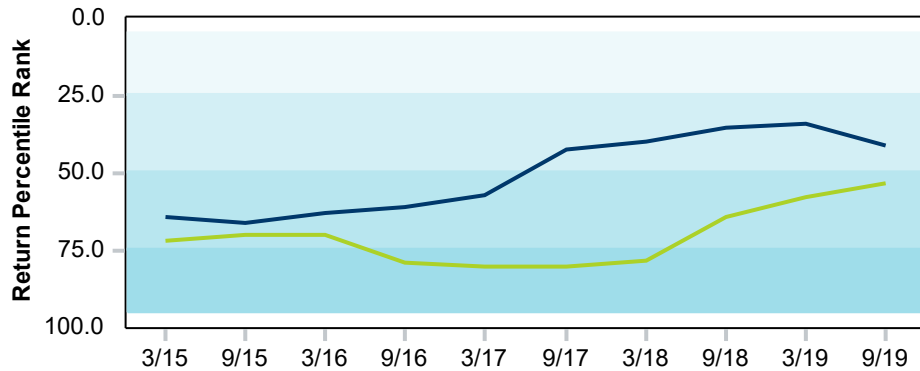
Comparative Performance



Added Value History

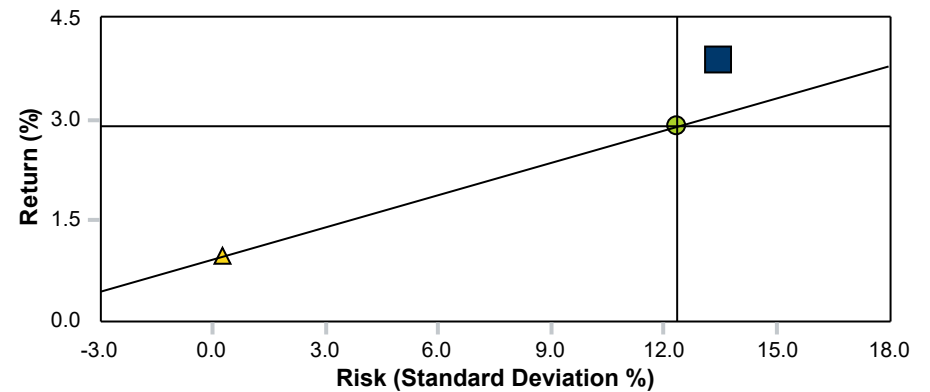


Rolling Percentile Rank: IM International Equity (SA+CF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Non-US Equity Composite	10	0 (0%)	5 (50%)	5 (50%)	0 (0%)
Benchmark	10	0 (0%)	0 (0%)	6 (60%)	4 (40%)

Risk and Return 10/1/14 - 09/30/19



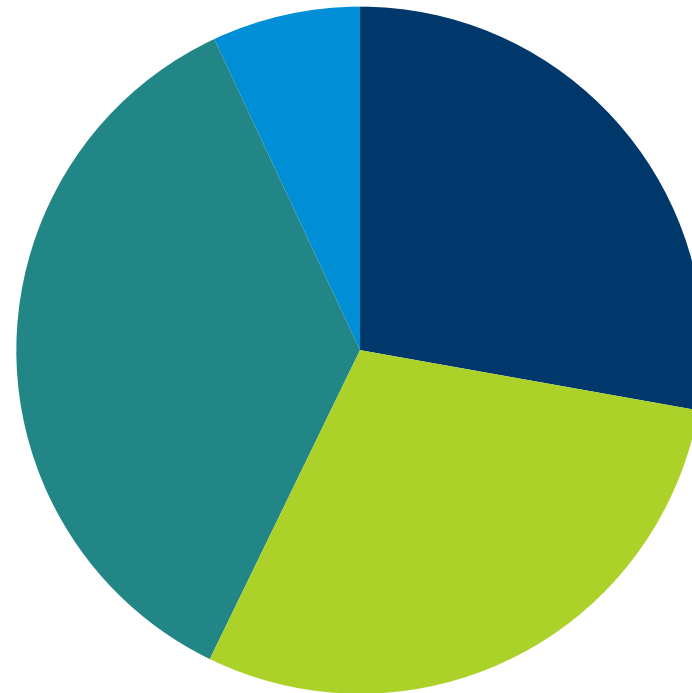
- Non-US Equity Composite
- Policy Index
- ▲ 90 Day US Treasury Bill

Asset Allocation By Manager

Non-US Equity Composite

Periods Ended September 30, 2019

Sep-2019 : 409,489,383

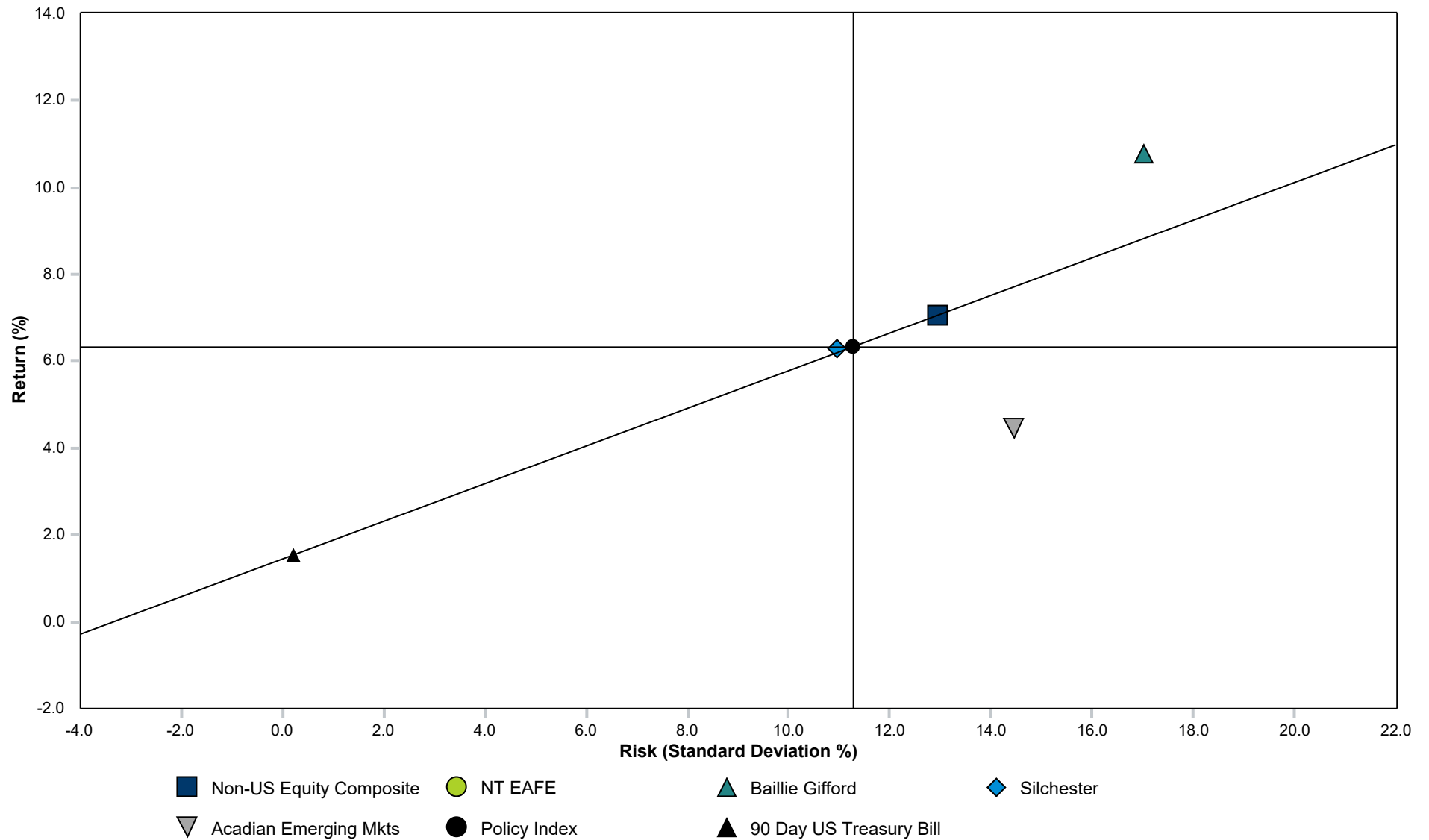


	Market Value \$	Allocation (%)
■ Acadian Emerging Mkts	113,854,703	27.8
■ Baillie Gifford	120,389,343	29.4
■ Silchester	146,695,381	35.8
■ NT EAFE	28,549,955	7.0

Risk vs. Return

Non-US Equity Composite

Periods Ended 3 Years Ending September 30, 2019



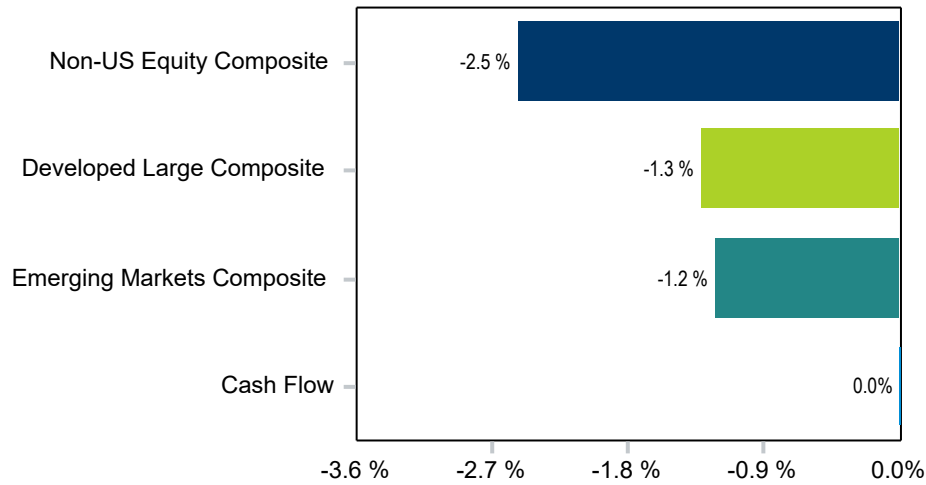
Calculation based on monthly periodicity.

Return and Risk Contribution

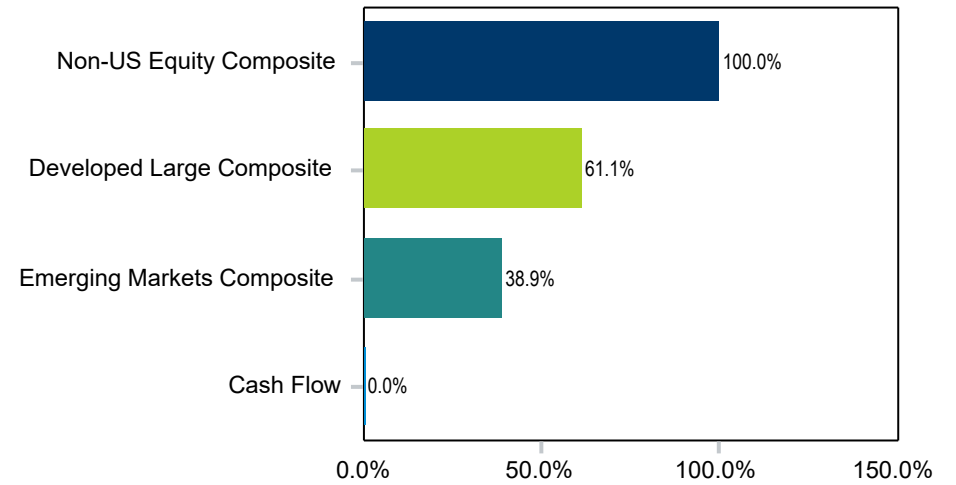
Non-US Equity Composite

Periods Ended September 30, 2019

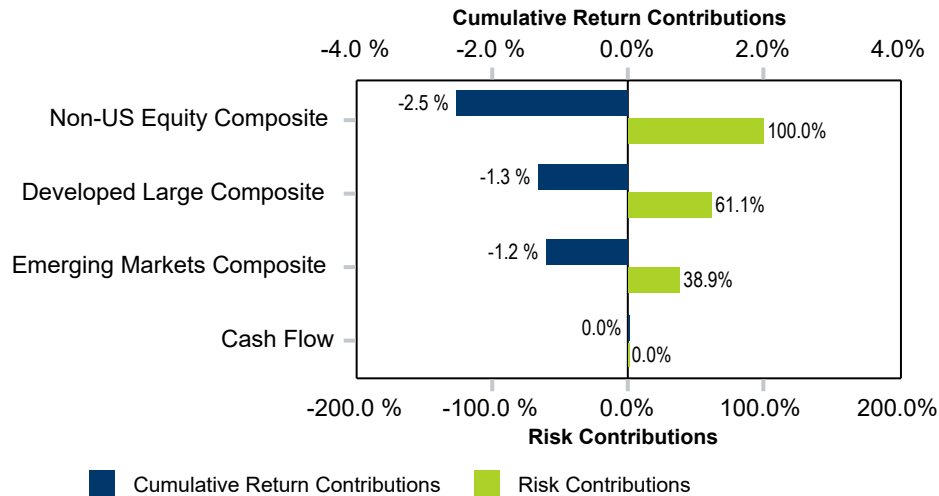
Cumulative Return Contributions



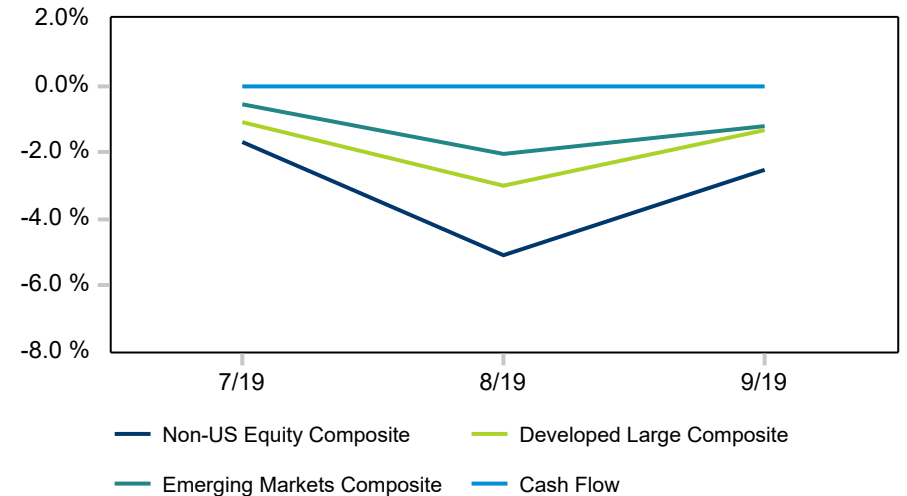
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History

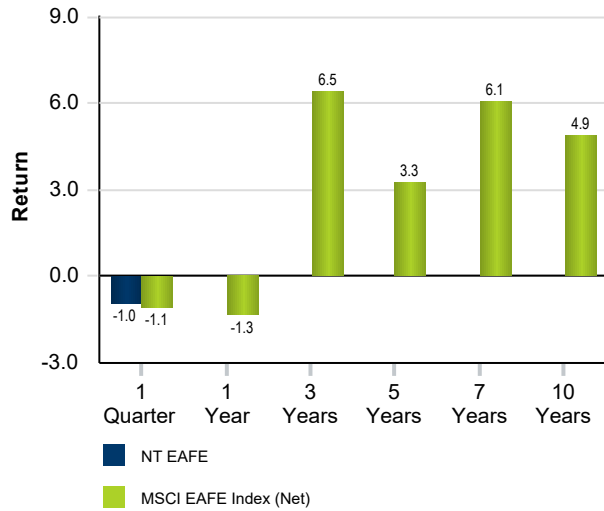


Performance Summary

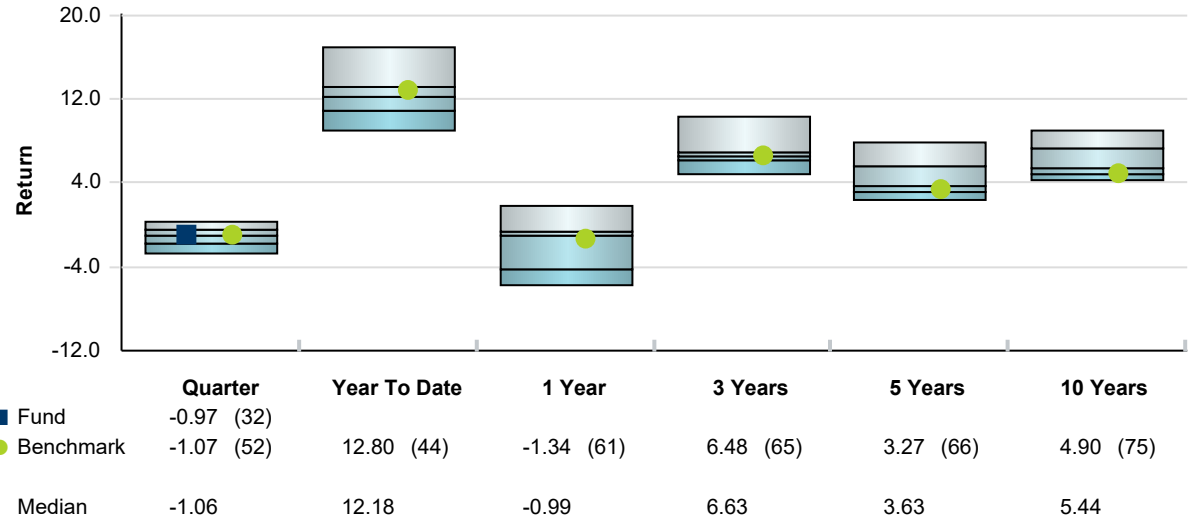
NT EAFE

Periods Ended September 30, 2019

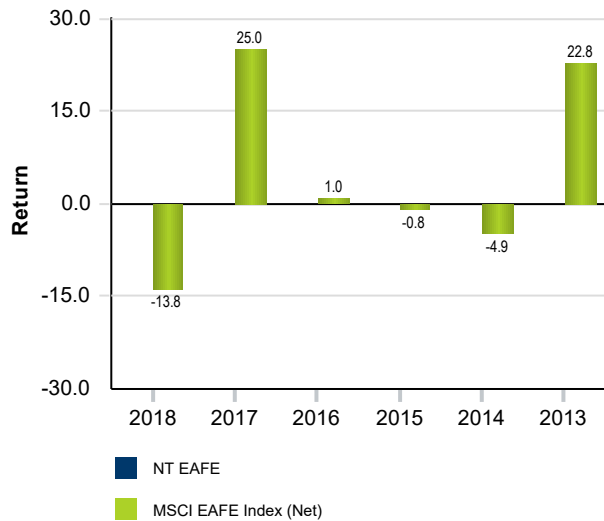
Comparative Performance



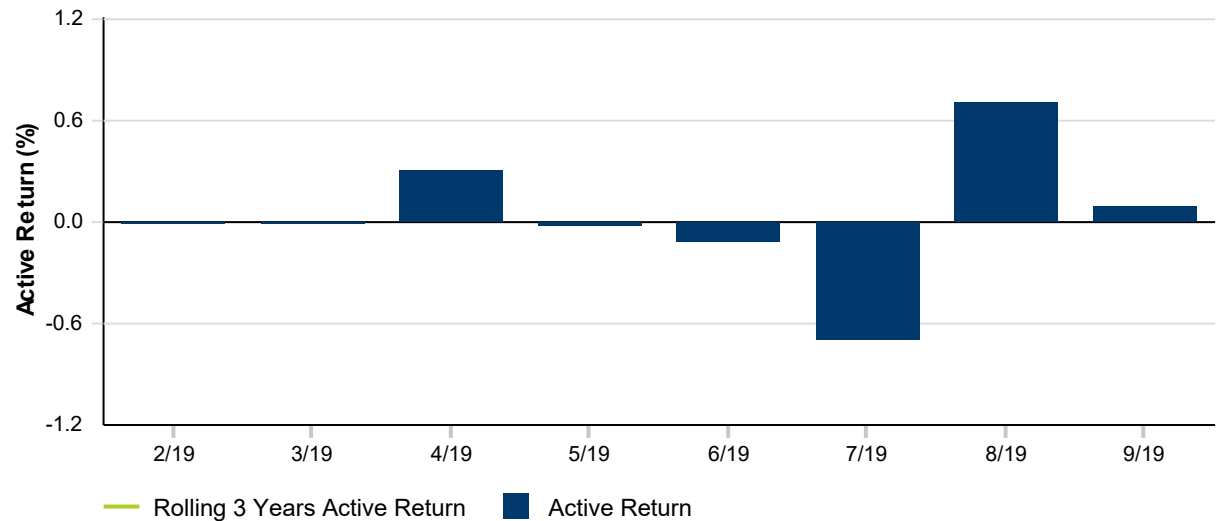
Peer Group Analysis: IM Enhanced and Indexed International Equity (SA+CF)



Comparative Performance



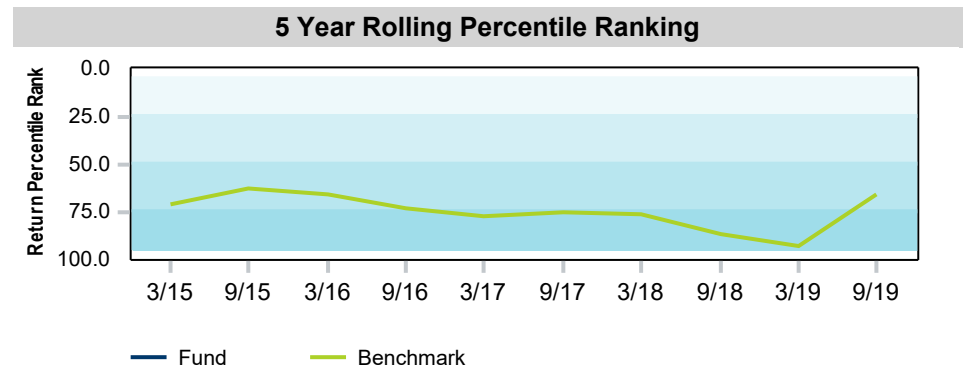
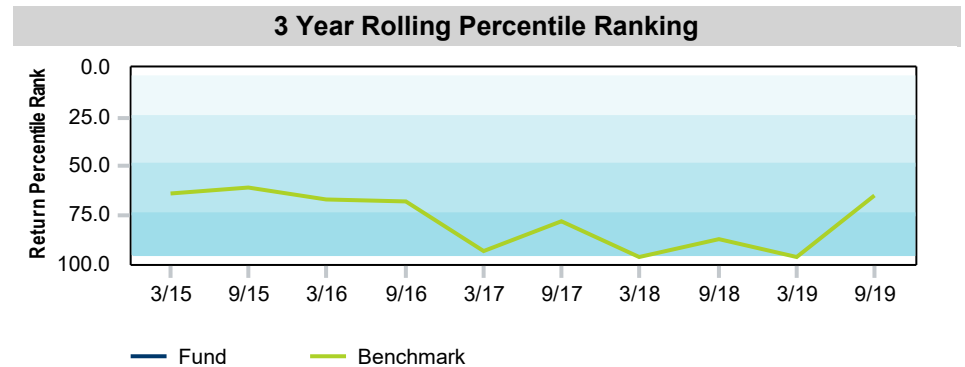
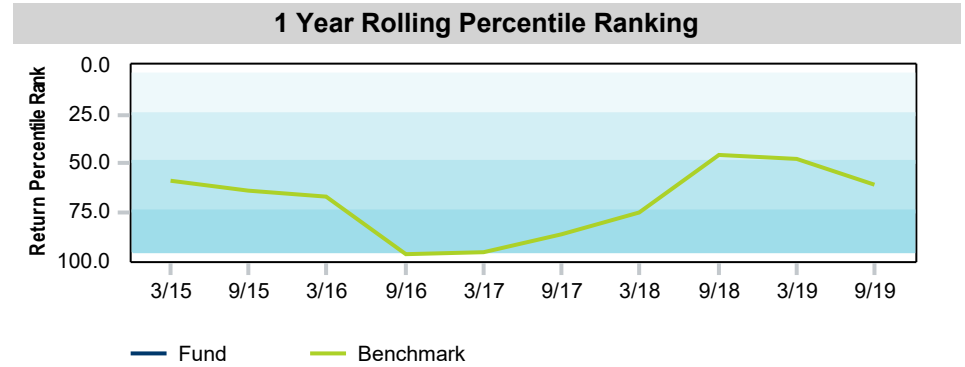
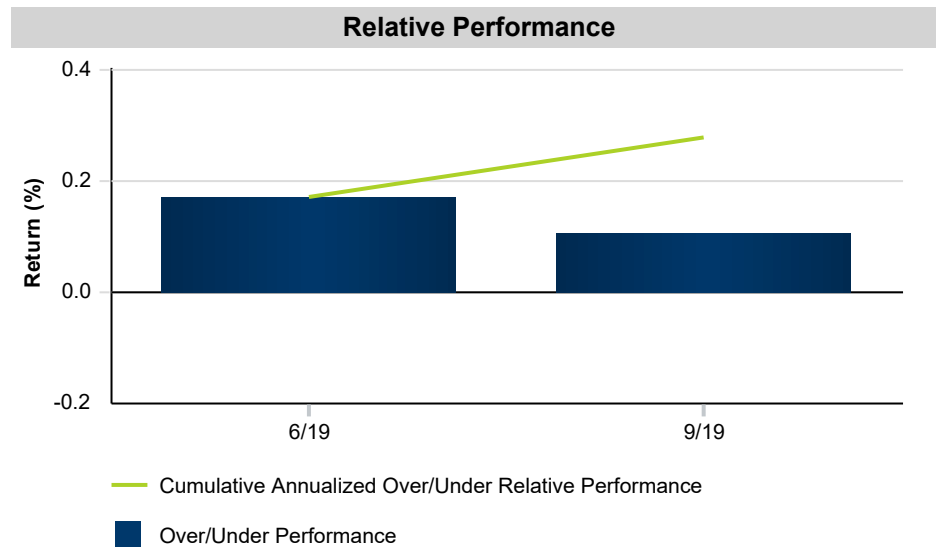
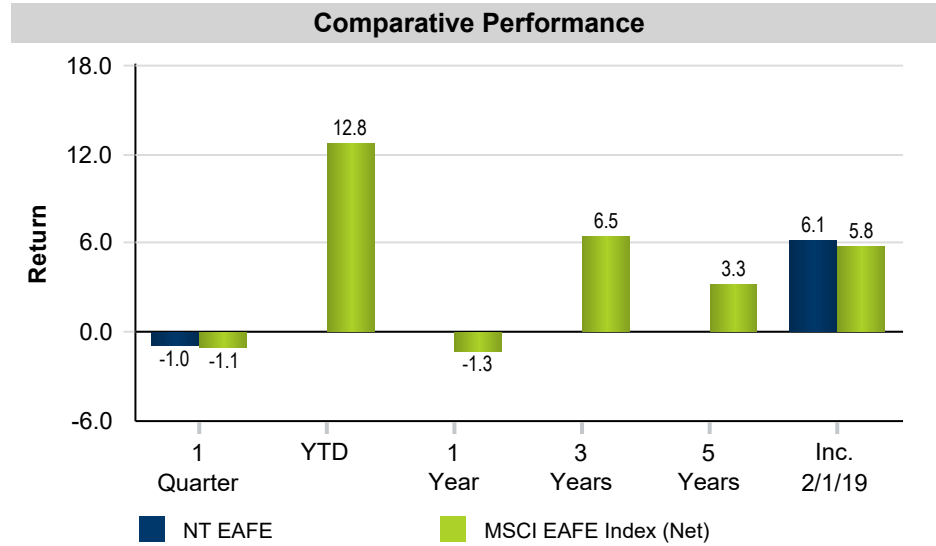
Rolling 3 Years Performance



Manager Summary

NT EAFE vs IM Enhanced and Indexed International Equity (SA+CF)

Periods Ended September 30, 2019

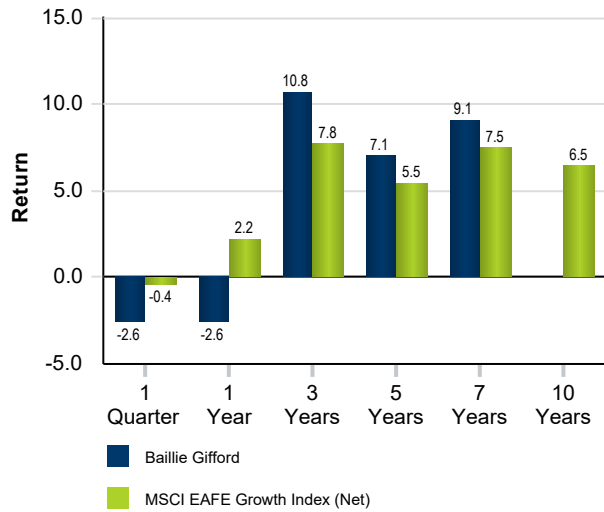


Performance Summary

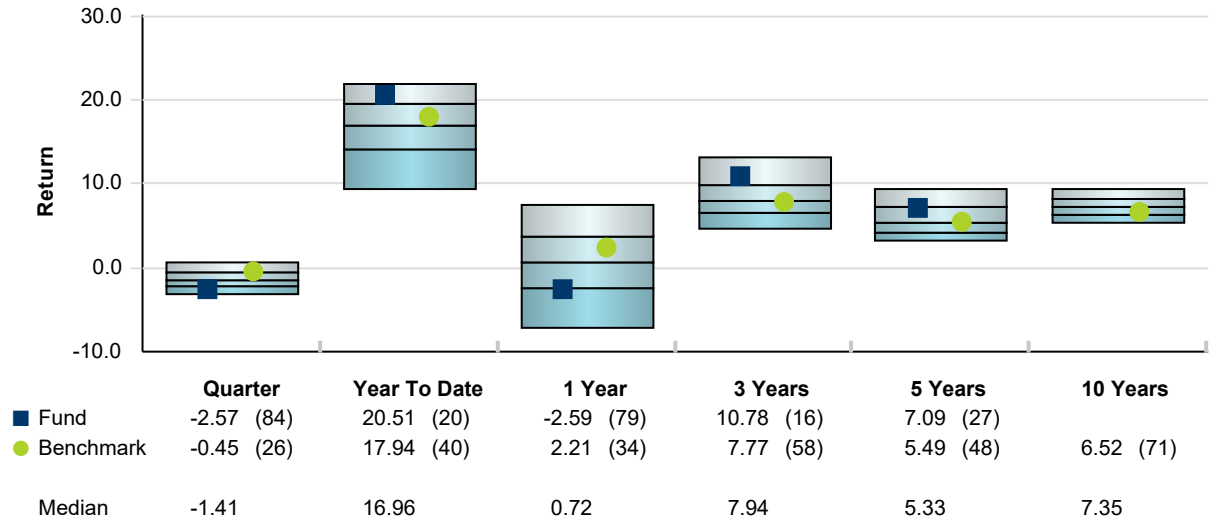
Baillie Gifford

Periods Ended September 30, 2019

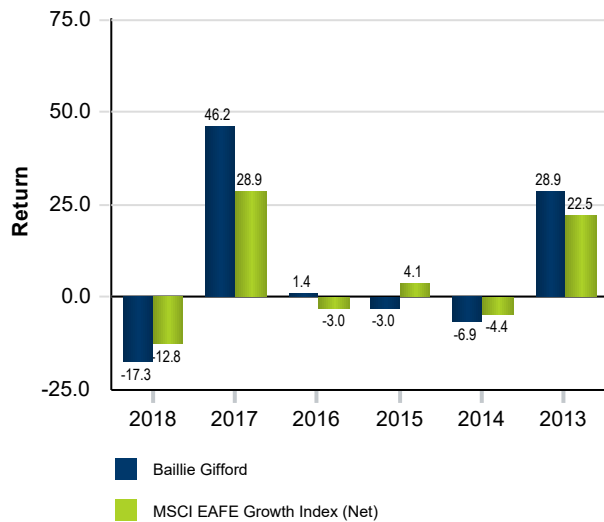
Comparative Performance



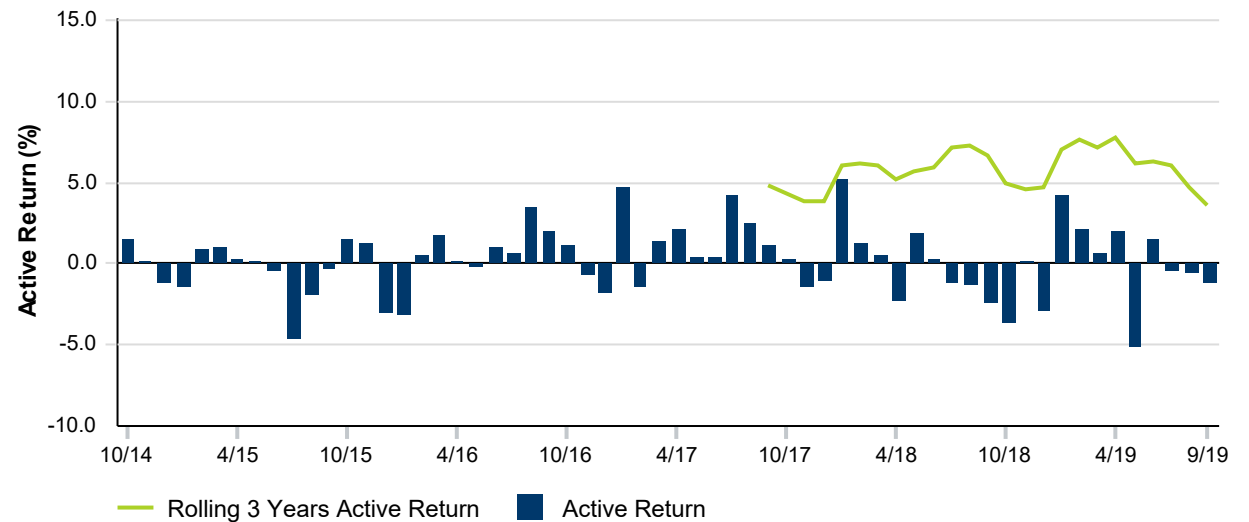
Peer Group Analysis: IM International Large Cap Growth Equity (SA+CF)



Comparative Performance



Rolling 3 Years Performance

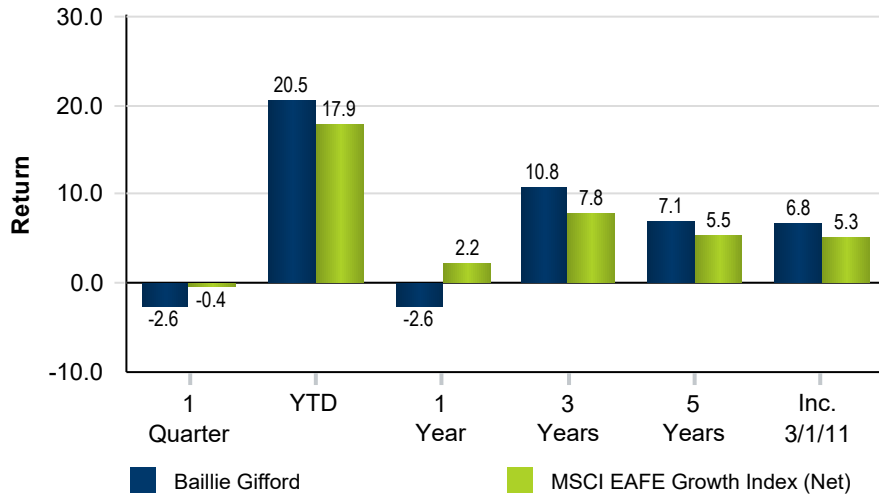


Manager Summary

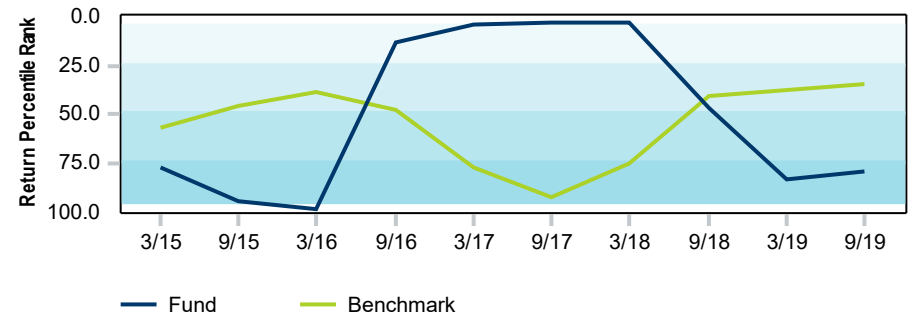
Baillie Gifford vs IM International Large Cap Growth Equity (SA+CF)

Periods Ended September 30, 2019

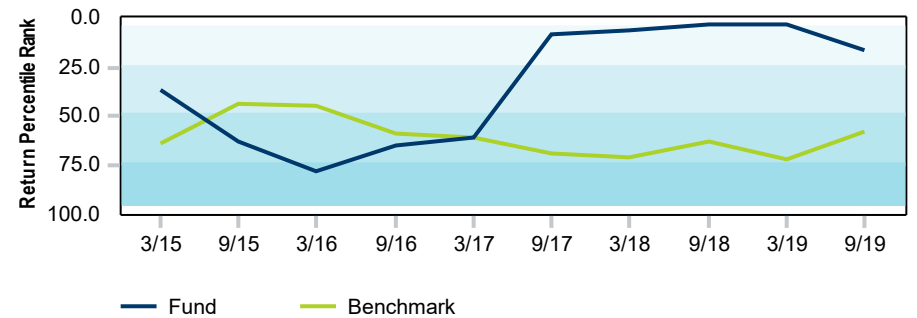
Comparative Performance



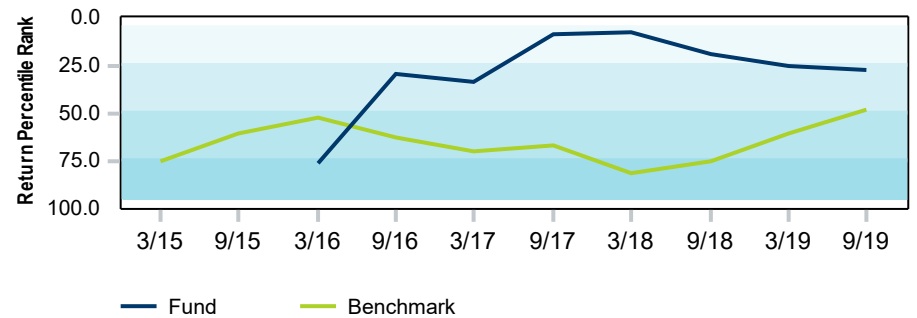
1 Year Rolling Percentile Ranking



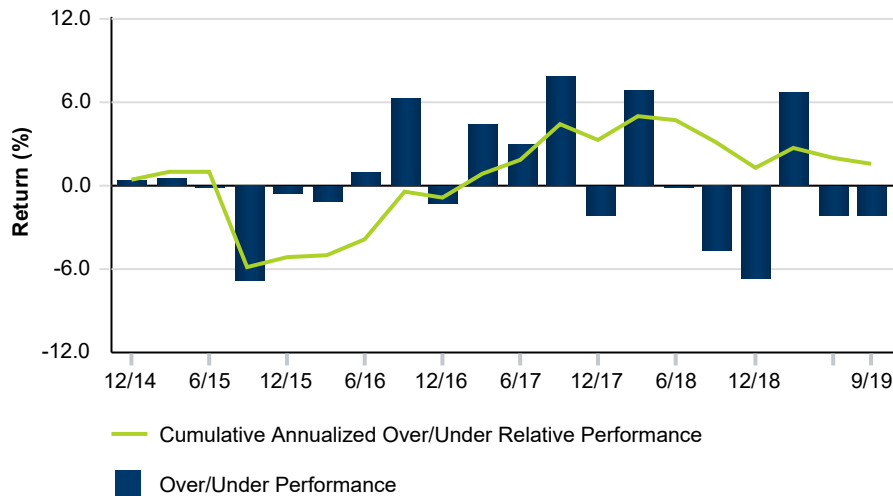
3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking



Relative Performance

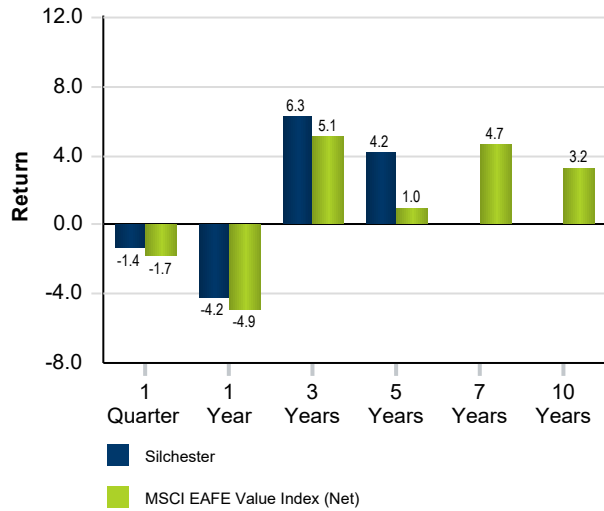


Performance Summary

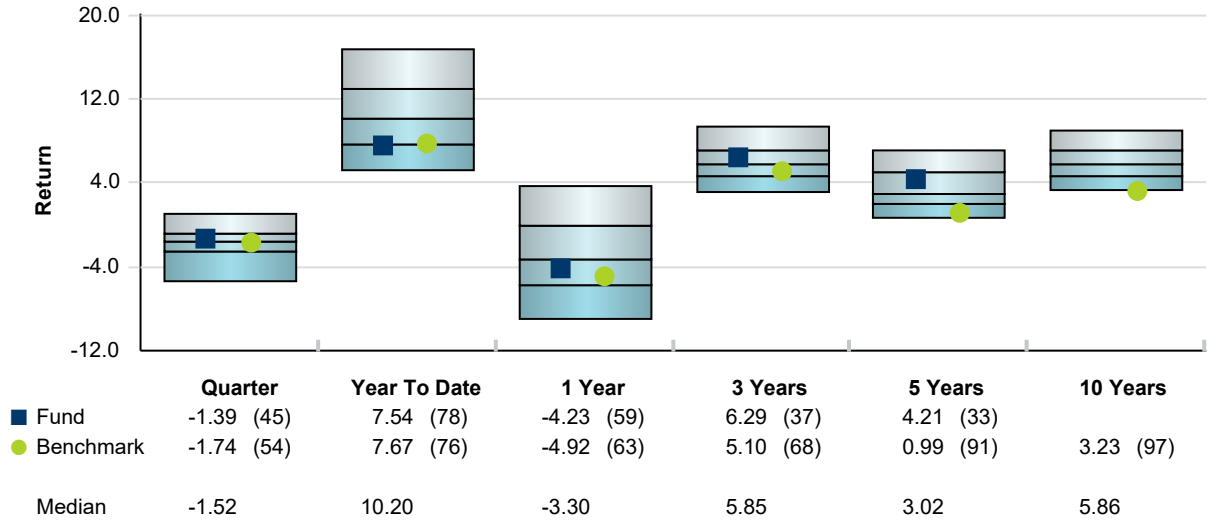
Silchester

Periods Ended September 30, 2019

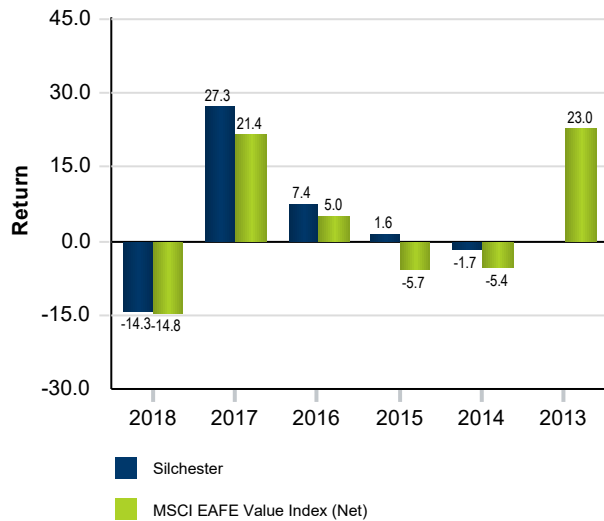
Comparative Performance



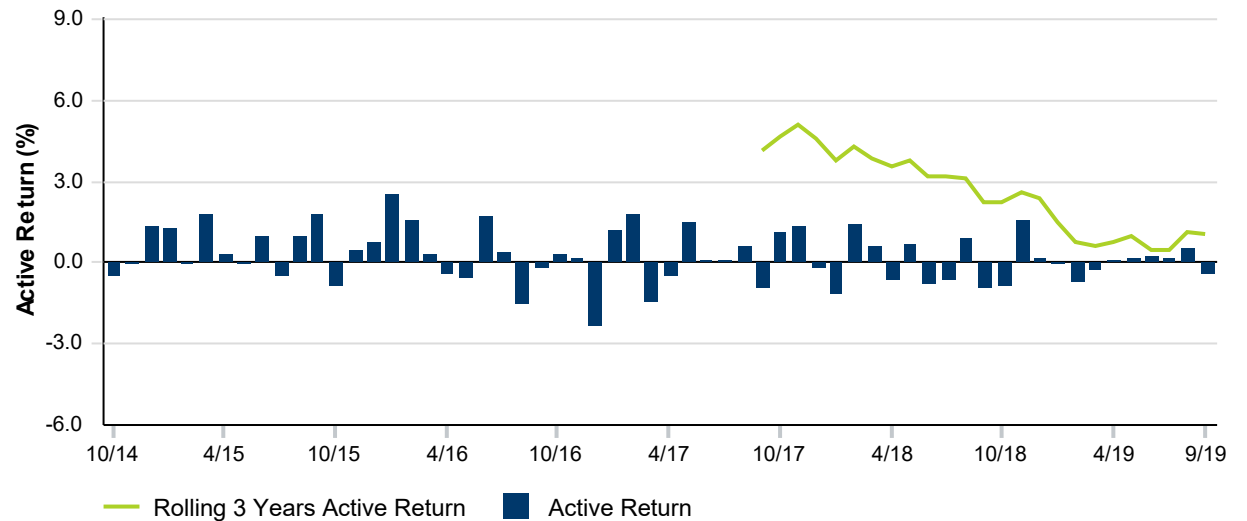
Peer Group Analysis: IM International Large Cap Value Equity (SA+CF)



Comparative Performance



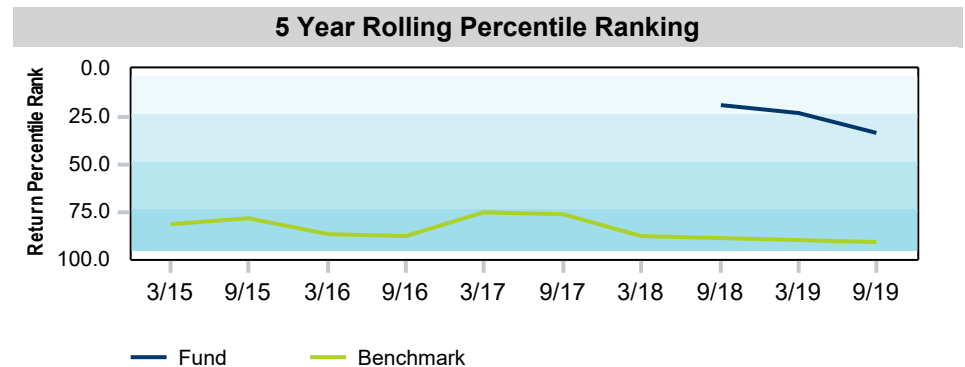
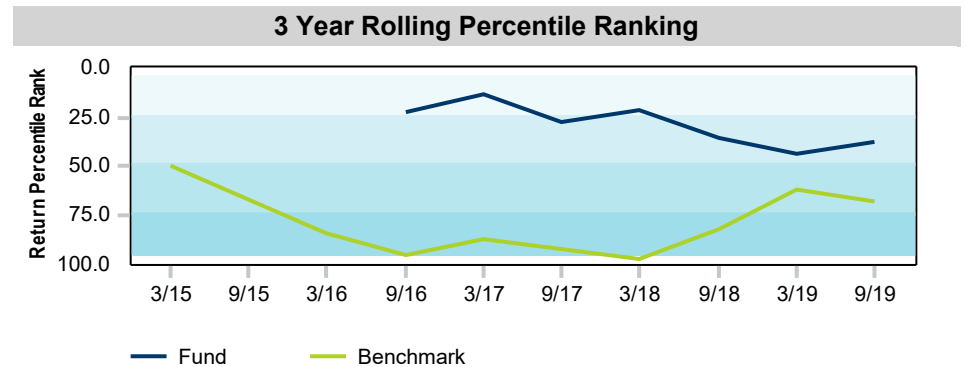
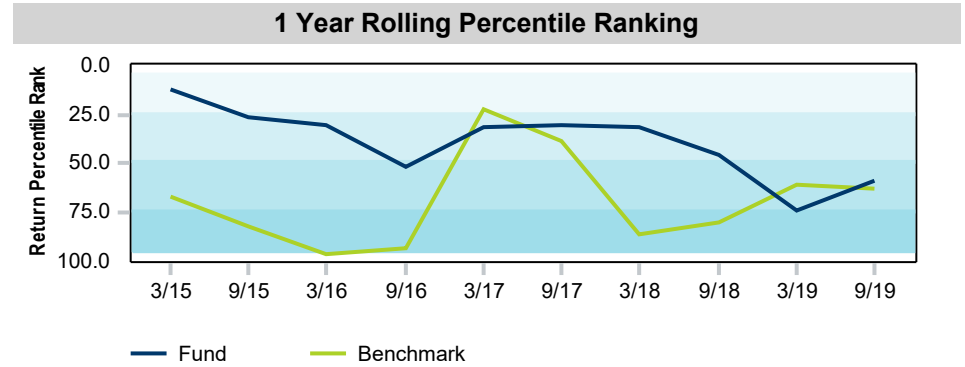
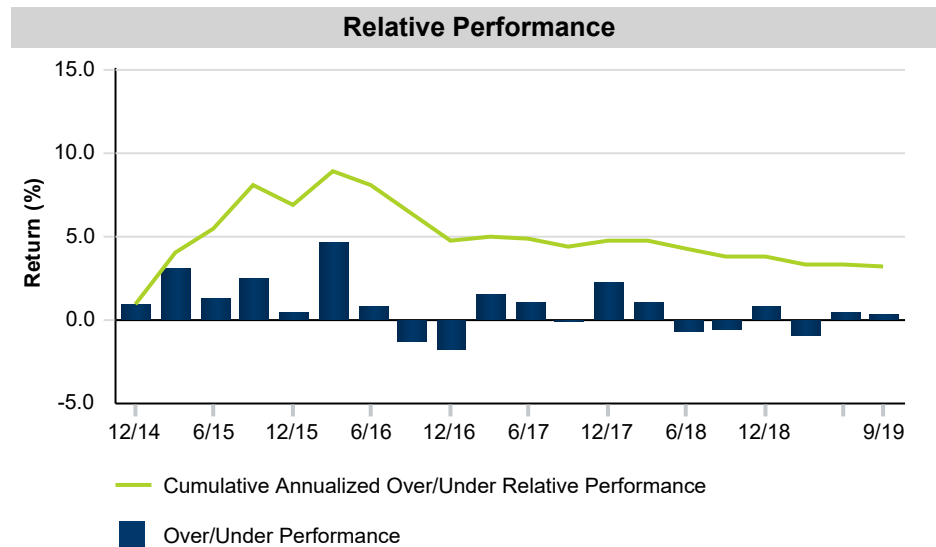
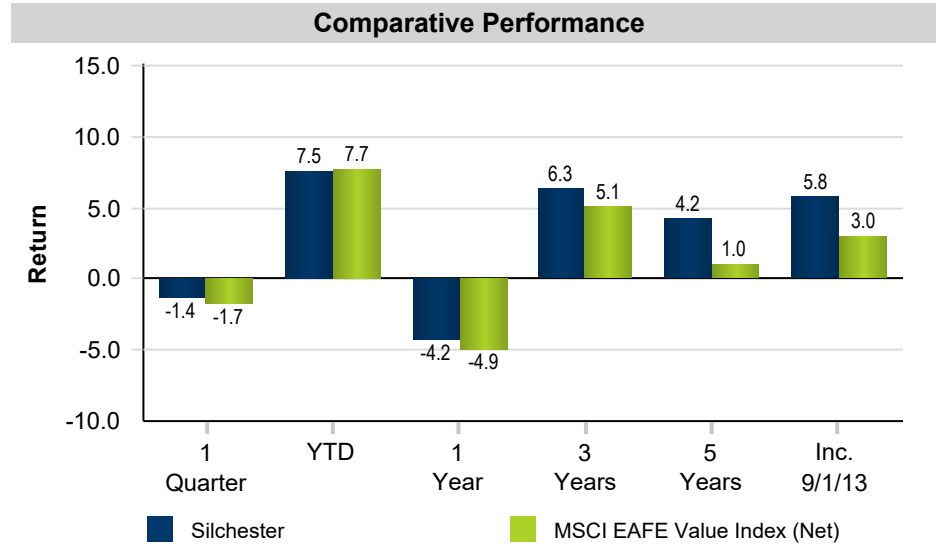
Rolling 3 Years Performance



Manager Summary

Silchester vs IM International Large Cap Value Equity (SA+CF)

Periods Ended September 30, 2019

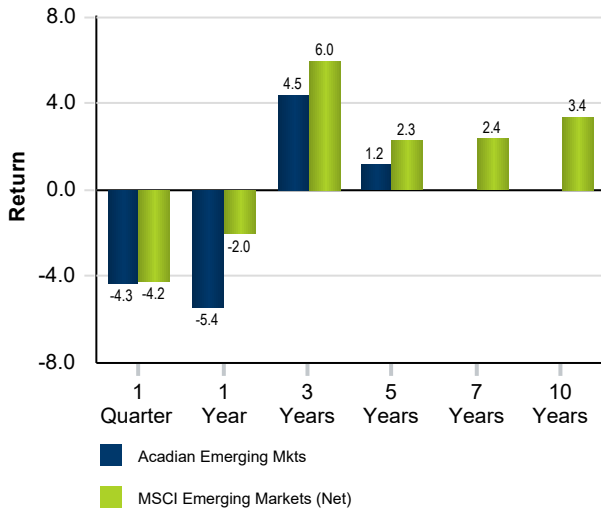


Performance Summary

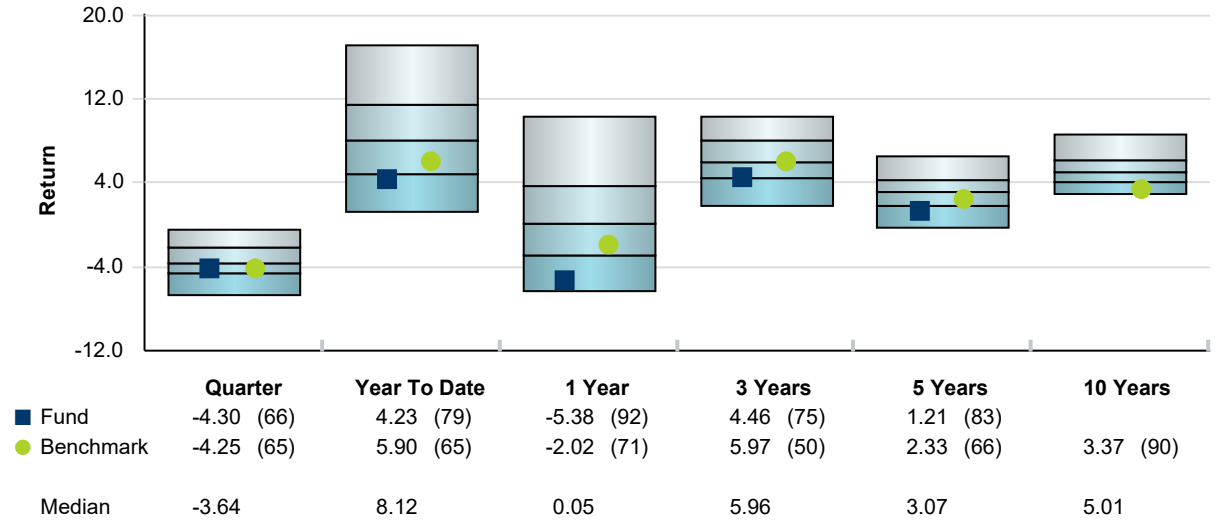
Acadian Emerging Mkts

Periods Ended September 30, 2019

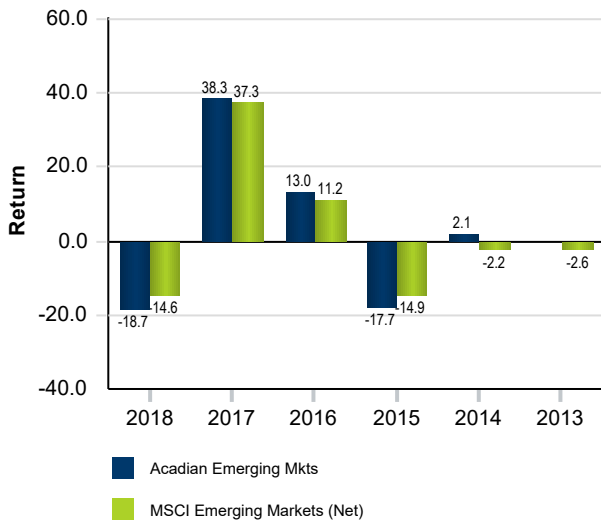
Comparative Performance



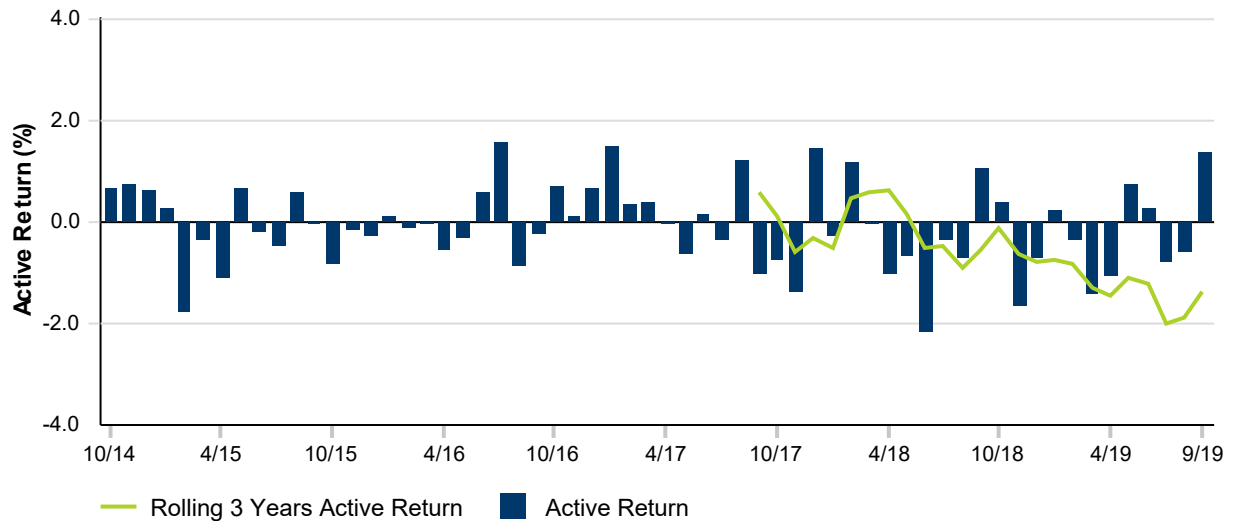
Peer Group Analysis: IM Emerging Markets Equity (SA+CF)



Comparative Performance



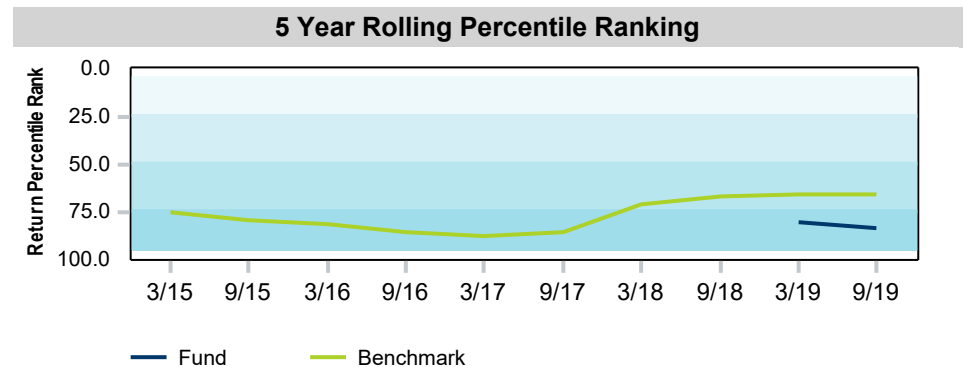
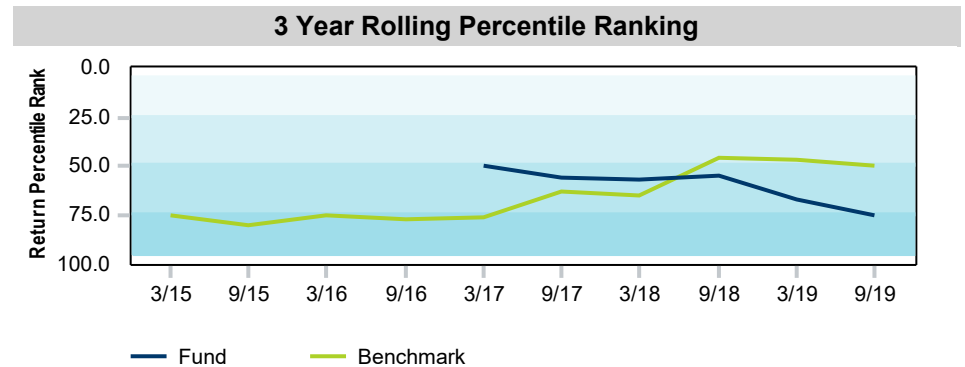
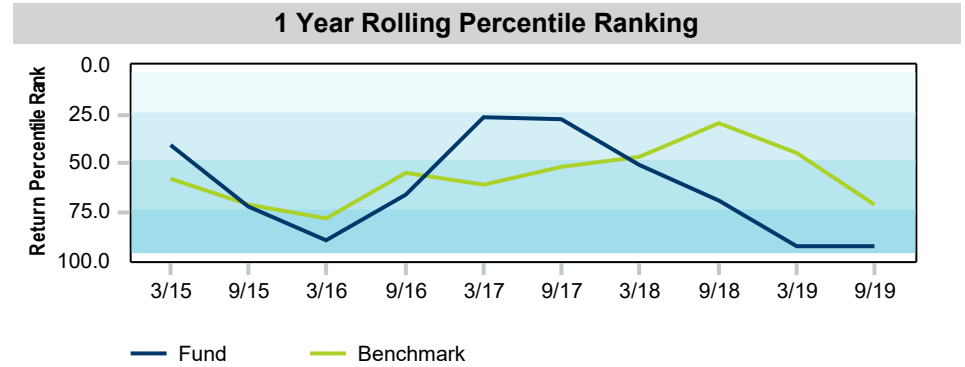
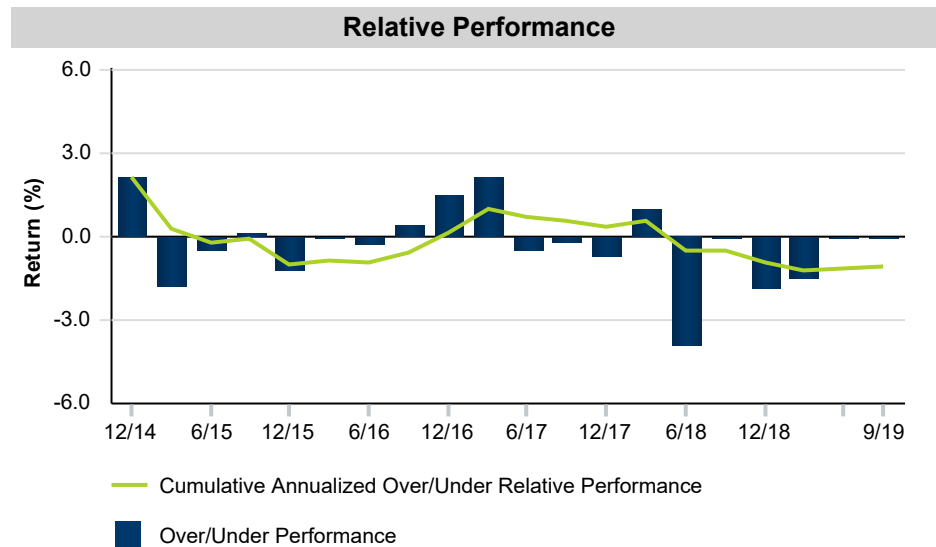
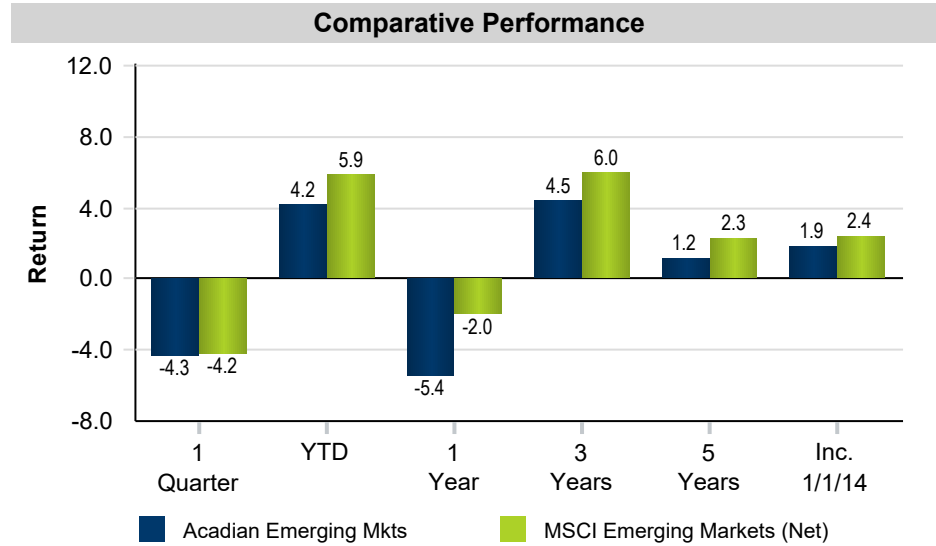
Rolling 3 Years Performance

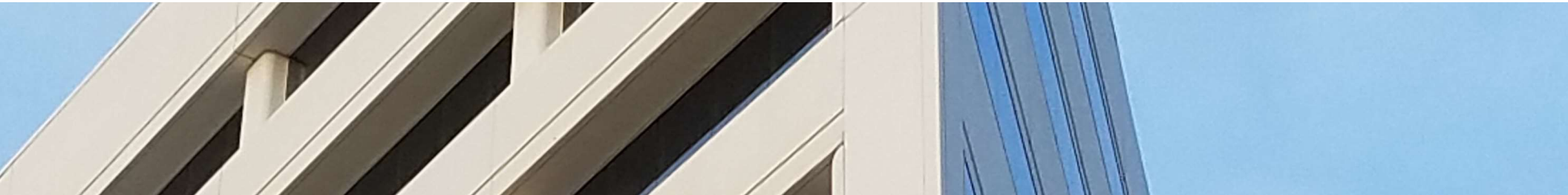


Manager Summary

Acadian Emerging Mkts vs IM Emerging Markets Equity (SA+CF)

Periods Ended September 30, 2019





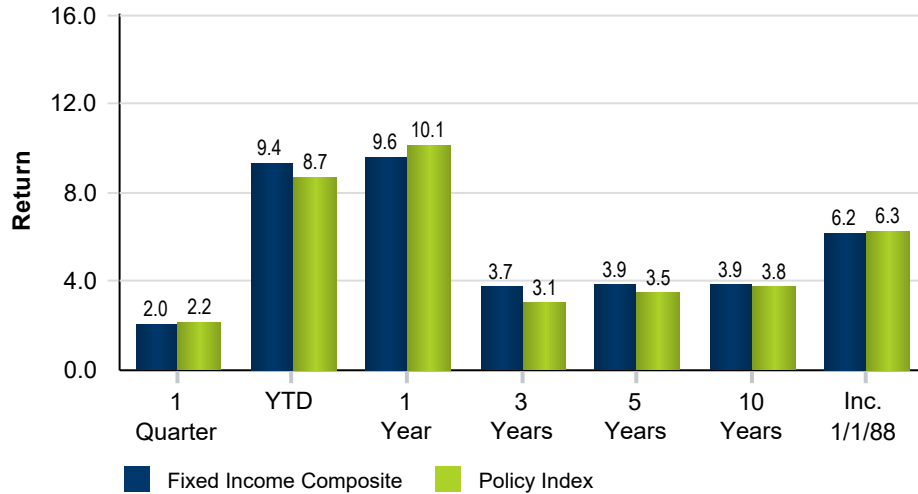
Fixed Income Composite

Composite Performance Summary

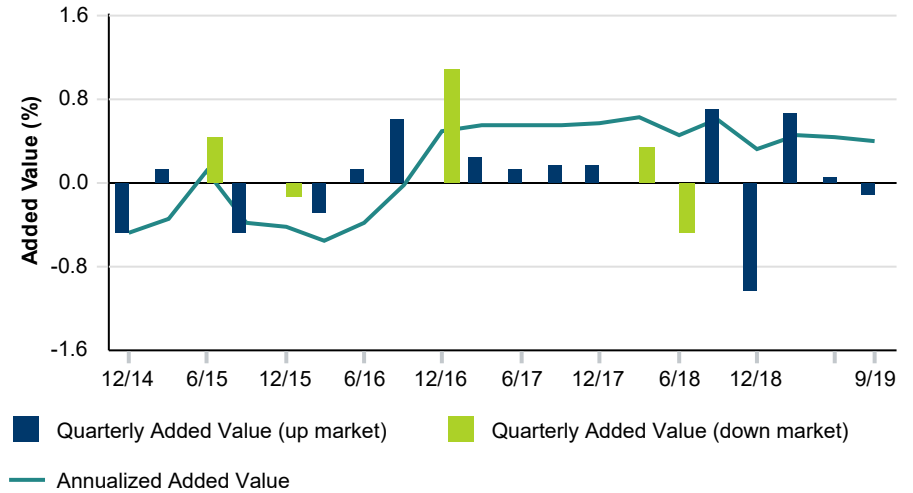
Fixed Income Composite

Periods Ended September 30, 2019

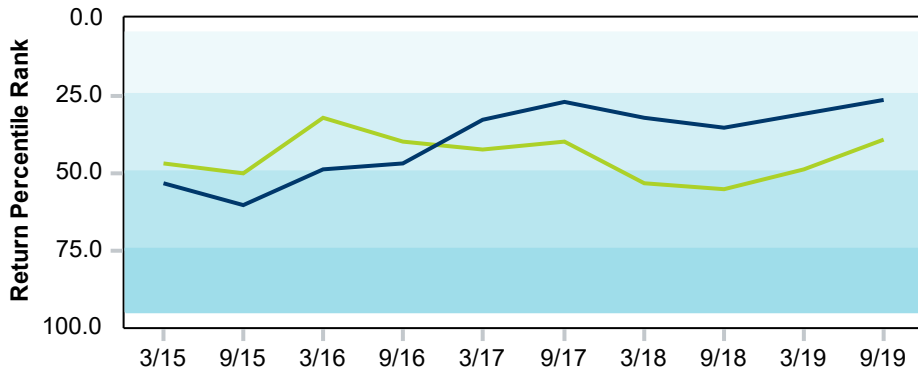
Comparative Performance



Added Value History

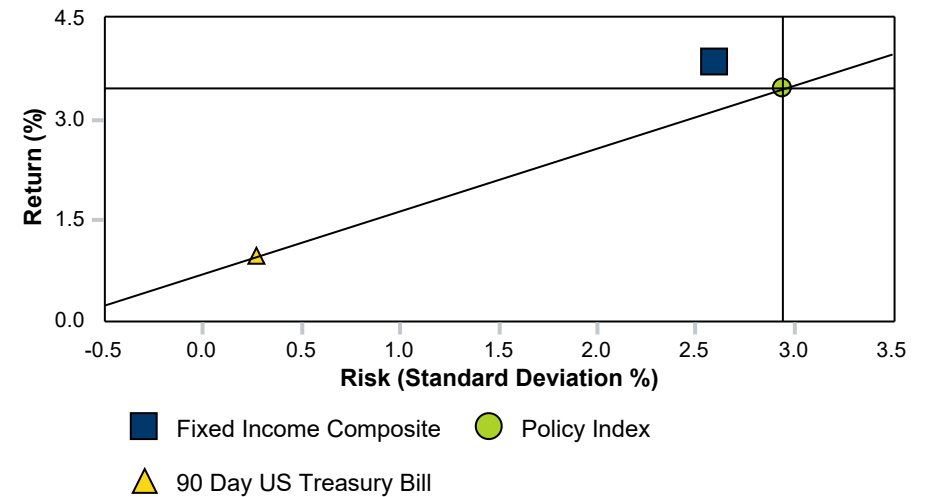


Rolling Percentile Rank: IM U.S. Fixed Income (SA+CF+MF)



	Total Period	5-25 Count	25-Median Count	Median-75 Count	75-95 Count
Fixed Income Composite	10	0 (0%)	8 (80%)	2 (20%)	0 (0%)
Benchmark	10	0 (0%)	8 (80%)	2 (20%)	0 (0%)

Risk and Return 10/1/14 - 09/30/19

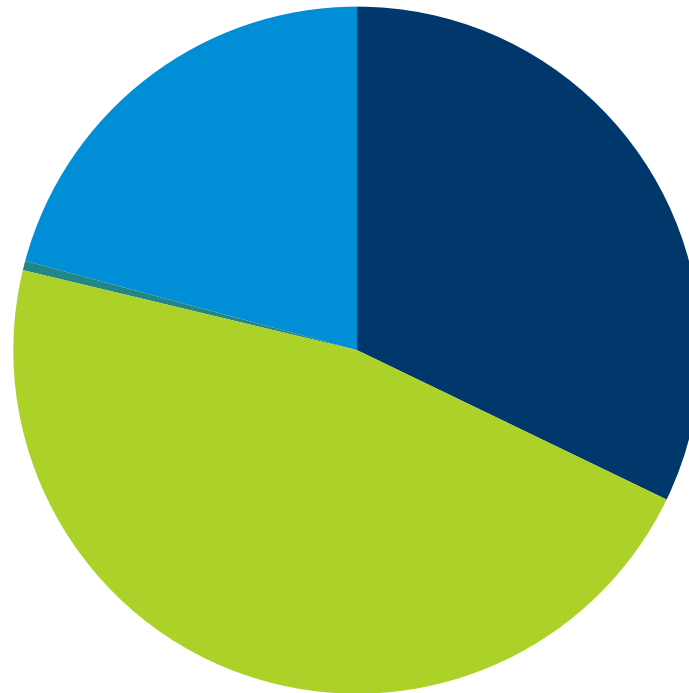


Asset Allocation By Manager

Fixed Income Composite

Periods Ended September 30, 2019

Sep-2019 : 450,623,528

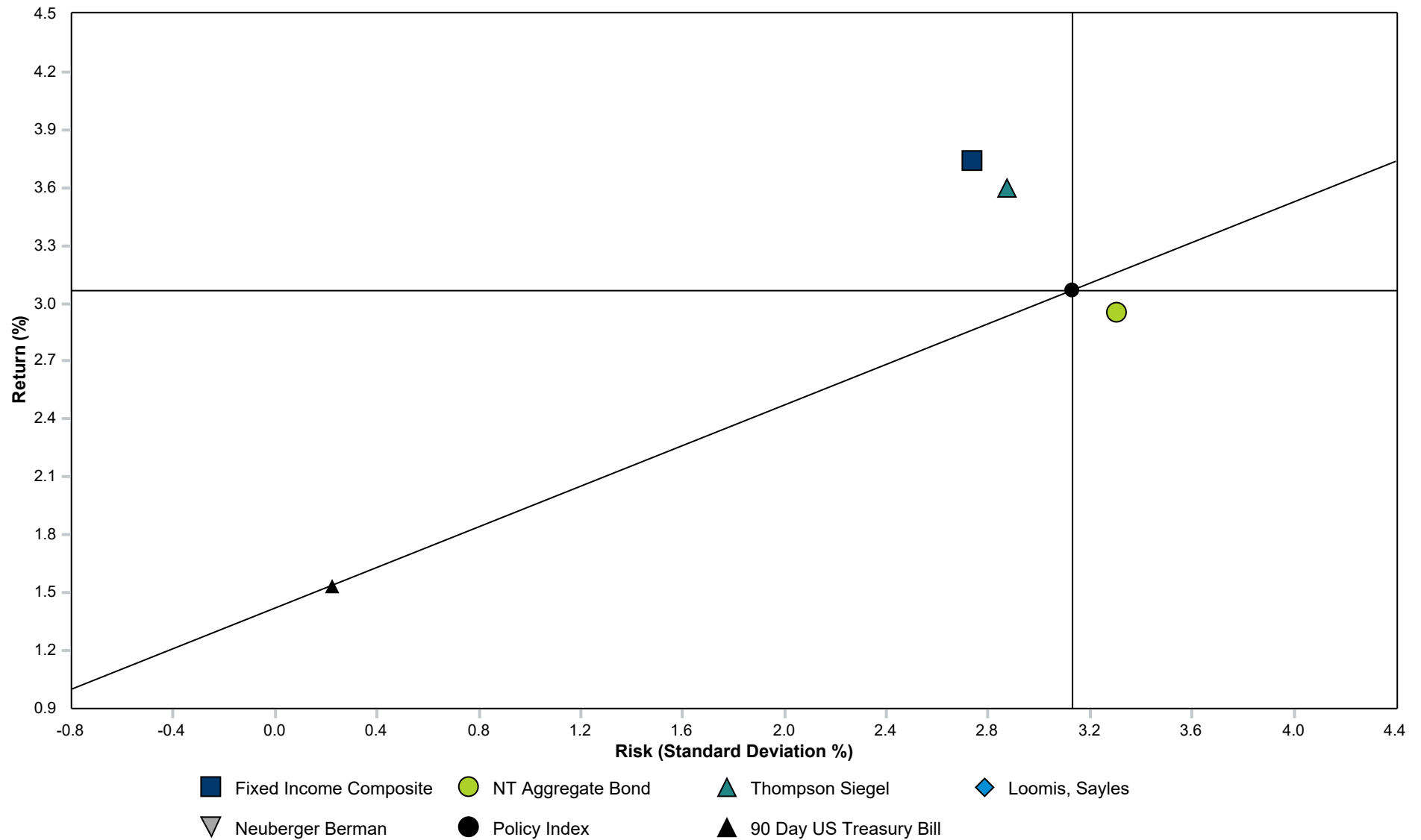


	Market Value \$	Allocation (%)
■ Loomis, Sayles	144,925,185	32.2
■ Neuberger Berman	209,909,262	46.6
■ NT Aggregate Bond	1,999,642	0.4
■ Thompson Siegel	93,789,439	20.8

Risk vs. Return

Fixed Income Composite

Periods Ended 3 Years Ending September 30, 2019



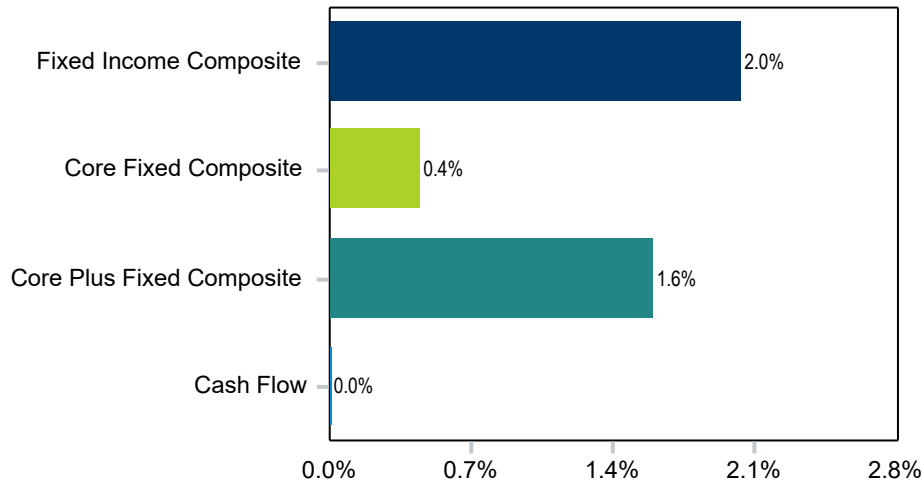
Calculation based on monthly periodicity.

Return and Risk Contribution

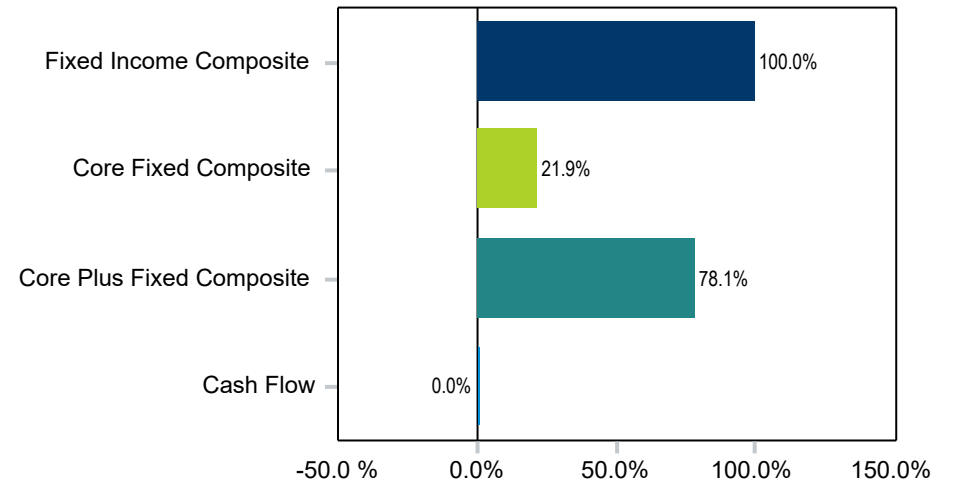
Fixed Income Composite

Periods Ended September 30, 2019

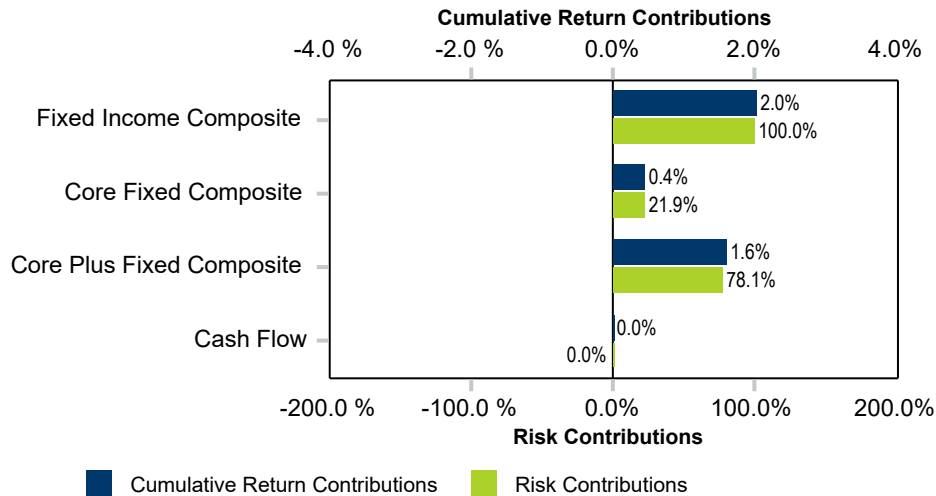
Cumulative Return Contributions



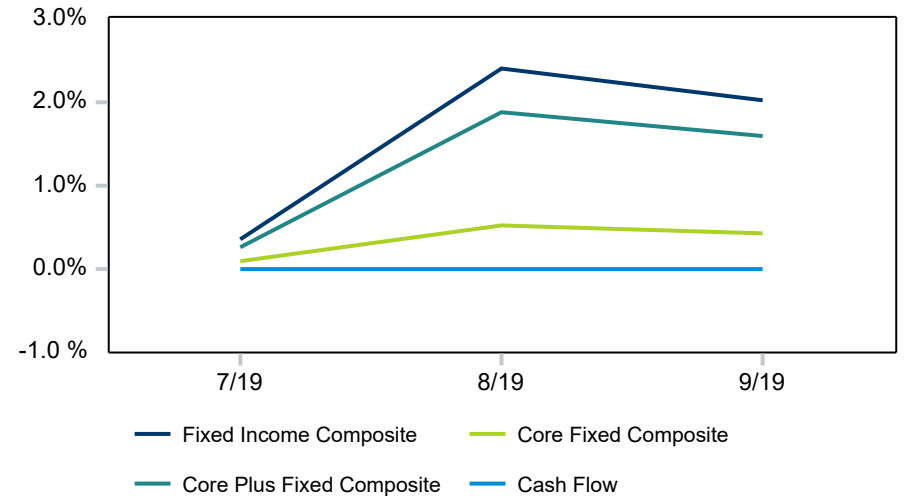
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History

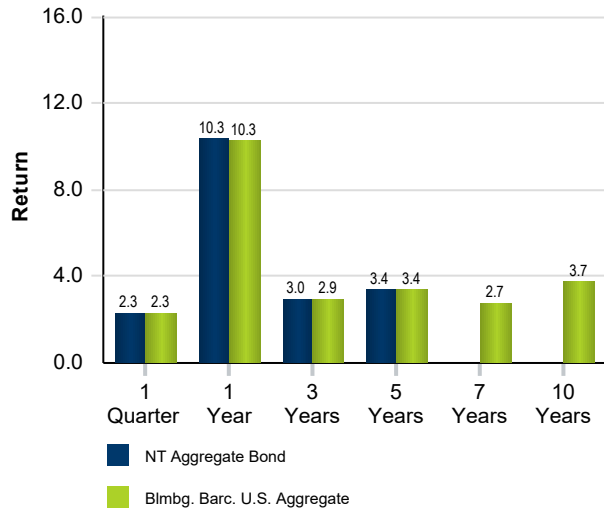


Performance Summary

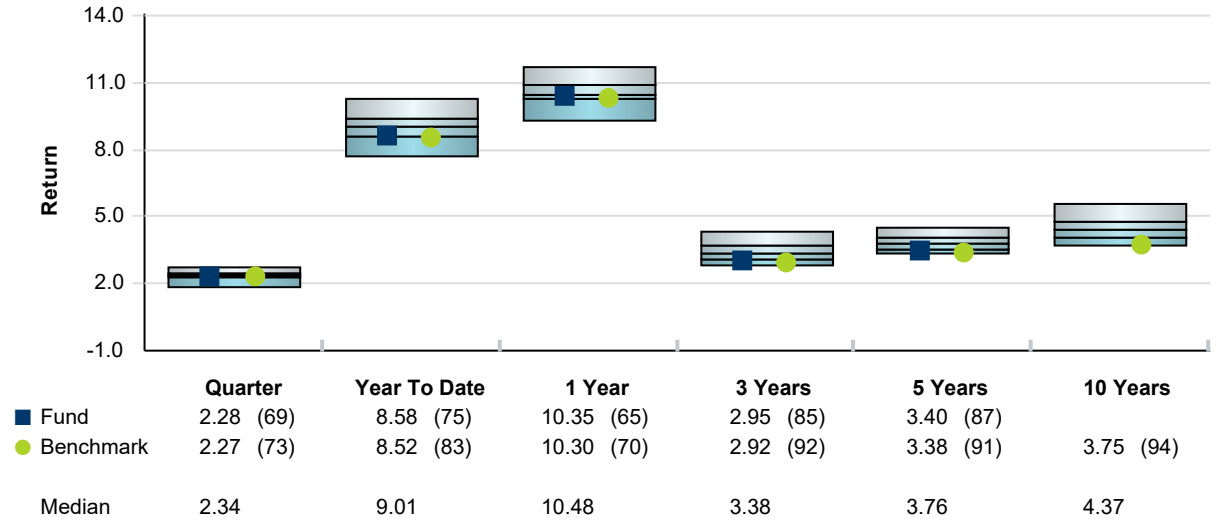
NT Aggregate Bond

Periods Ended September 30, 2019

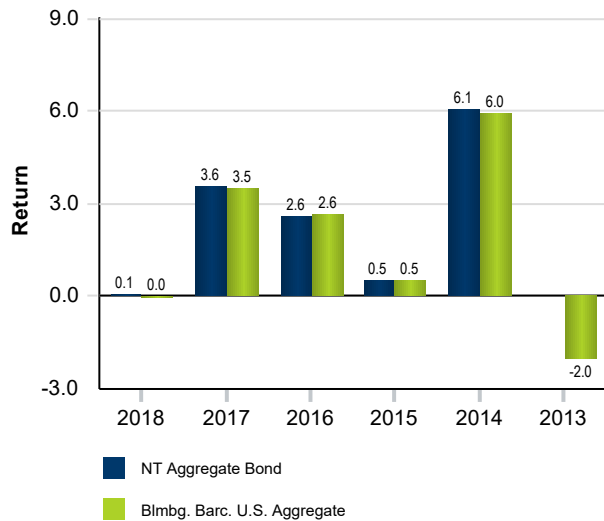
Comparative Performance



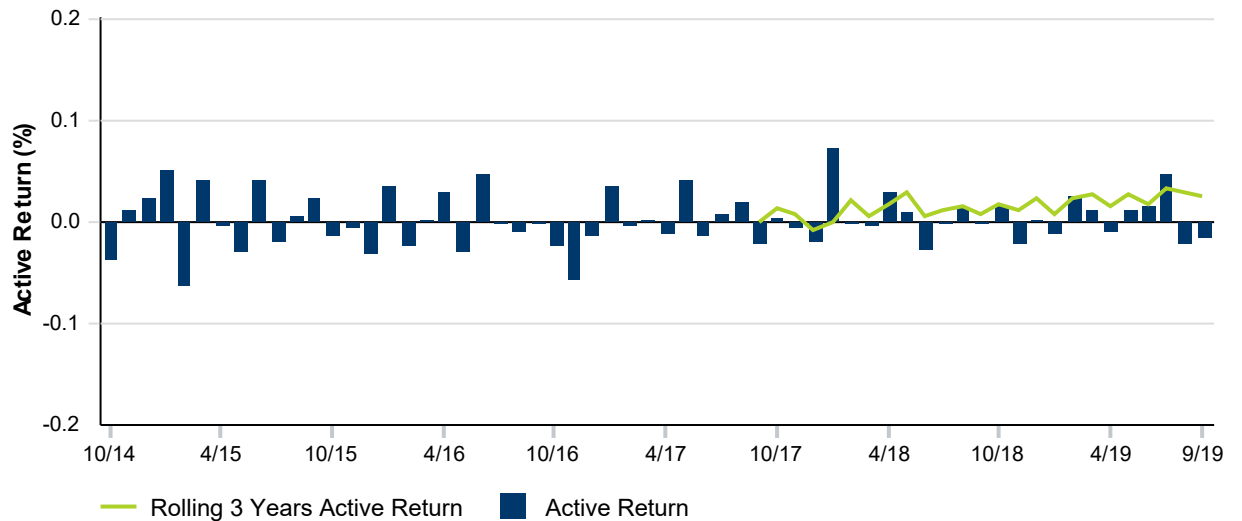
Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)



Comparative Performance



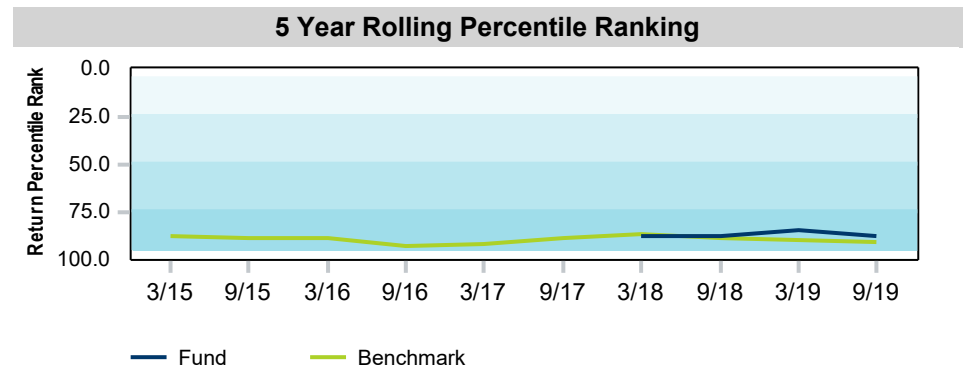
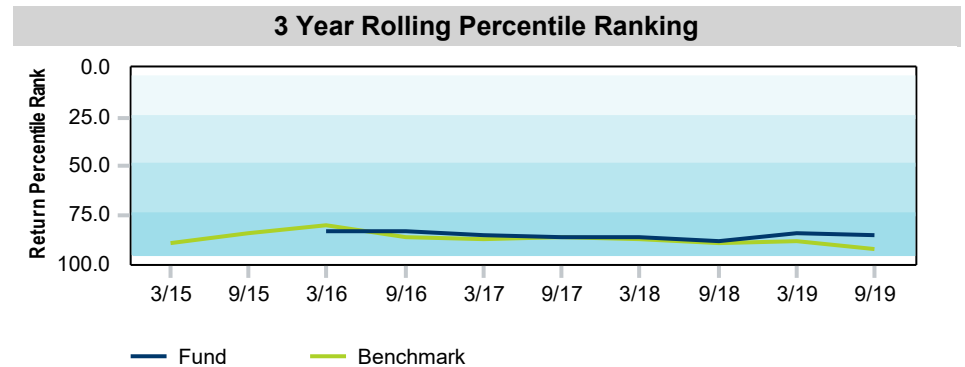
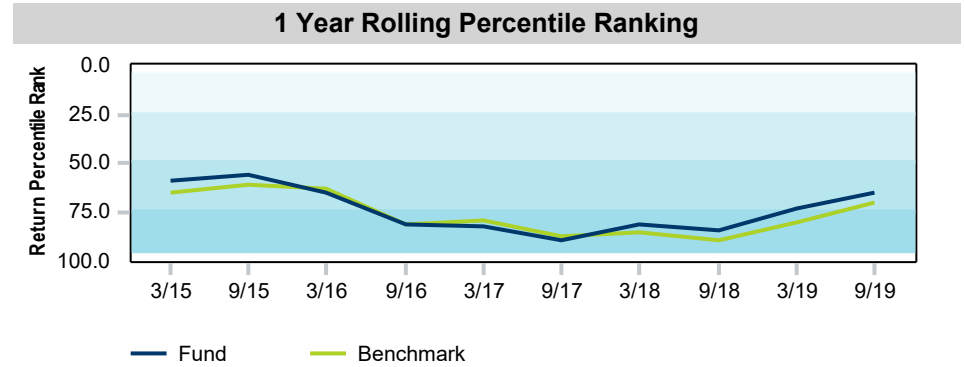
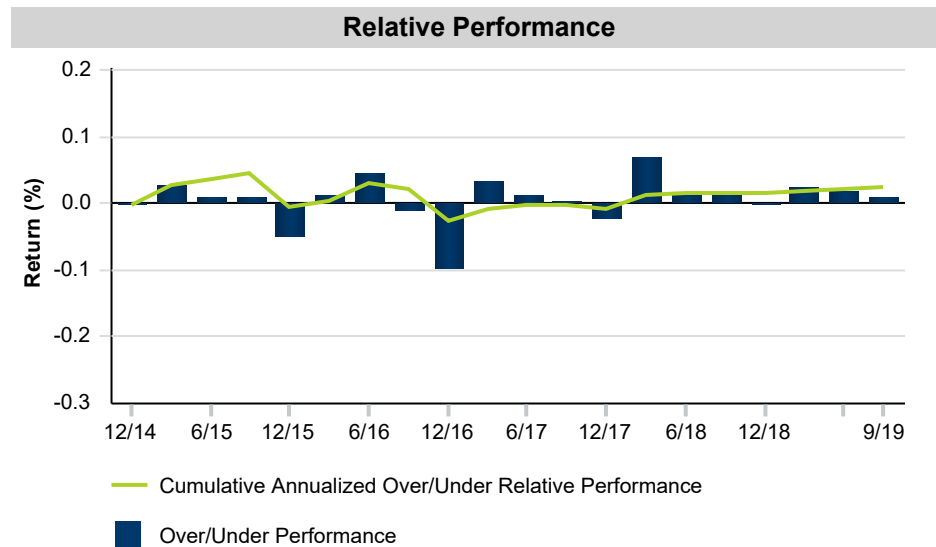
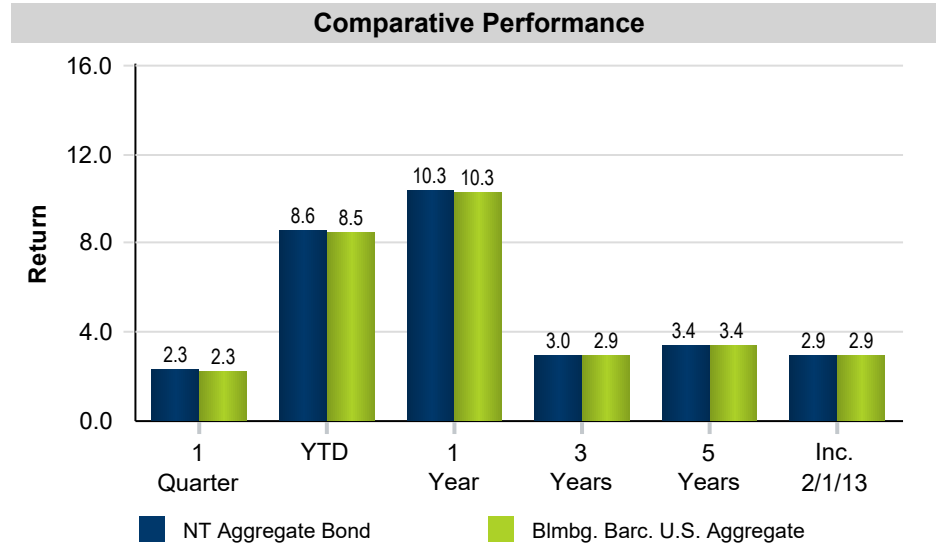
Rolling 3 Years Performance



Manager Summary

NT Aggregate Bond vs IM U.S. Broad Market Core Fixed Income (SA+CF)

Periods Ended September 30, 2019

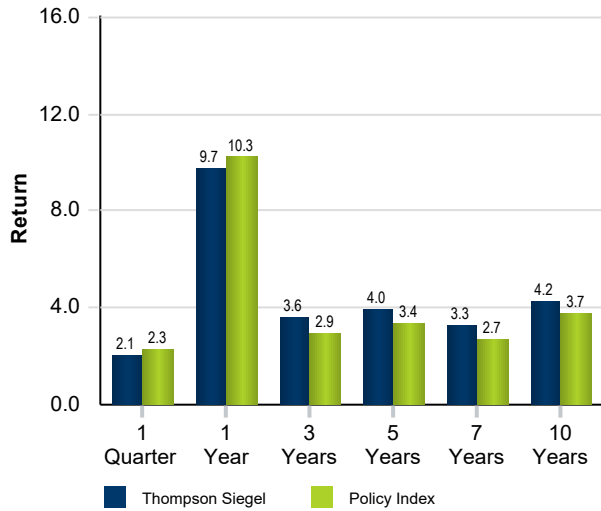


Performance Summary

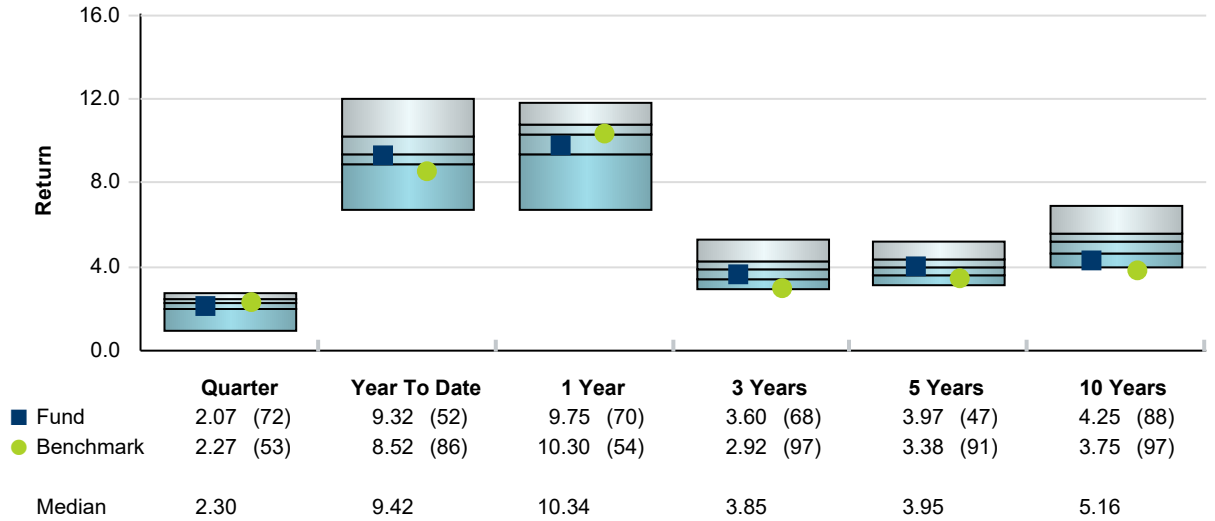
Thompson Siegel

Periods Ended September 30, 2019

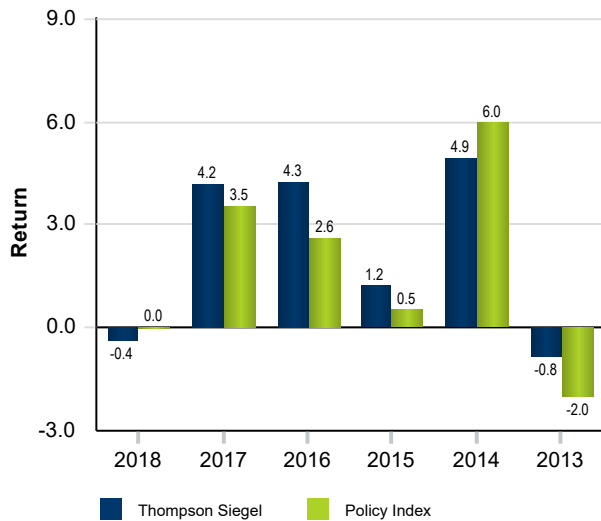
Comparative Performance



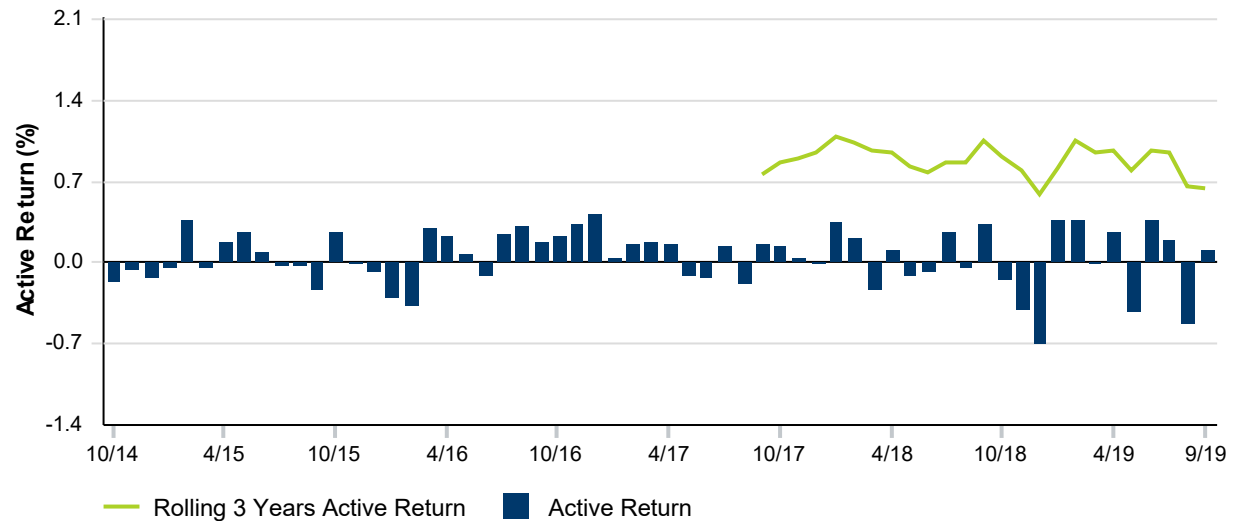
Peer Group Analysis: IM U.S. Broad Market Core+ Fixed Income (SA+CF)



Comparative Performance

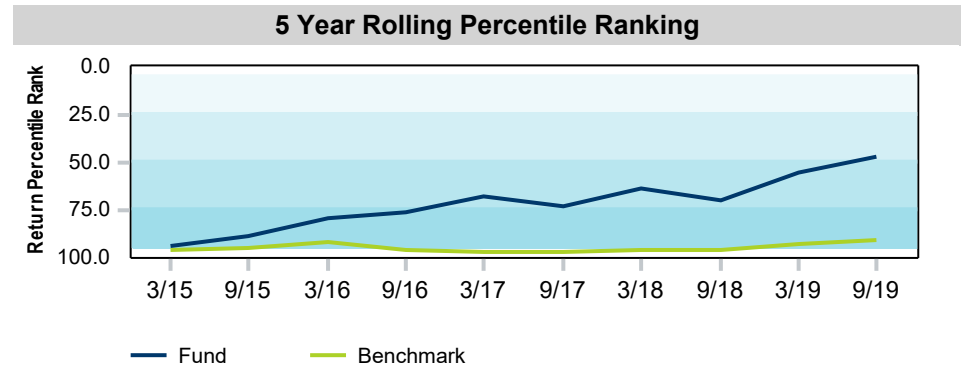
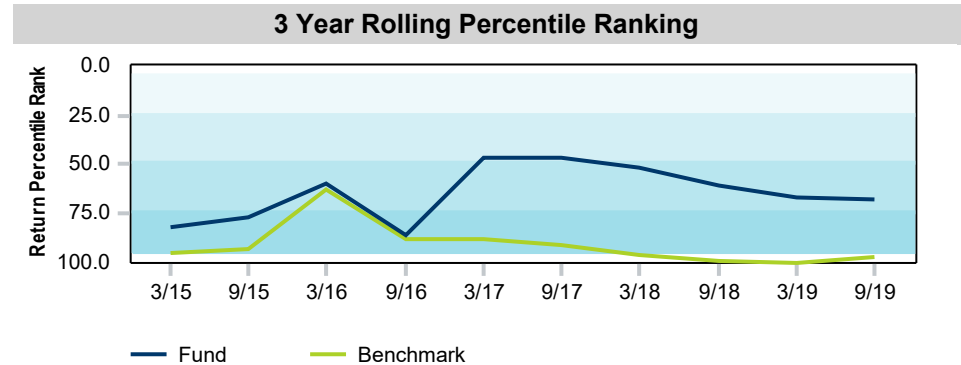
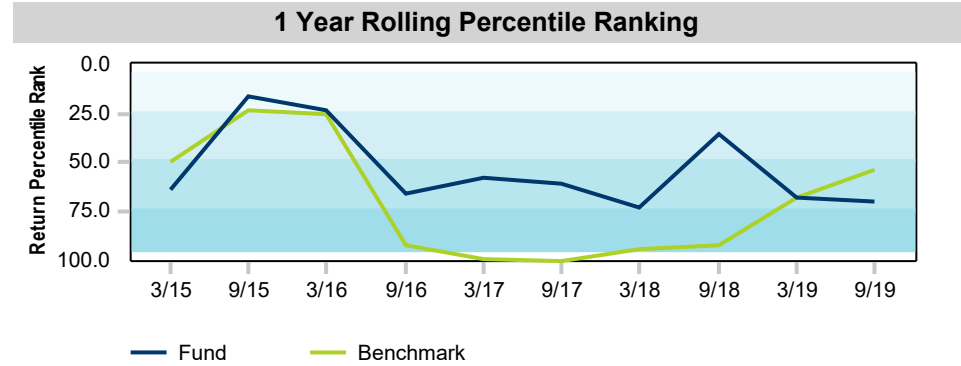
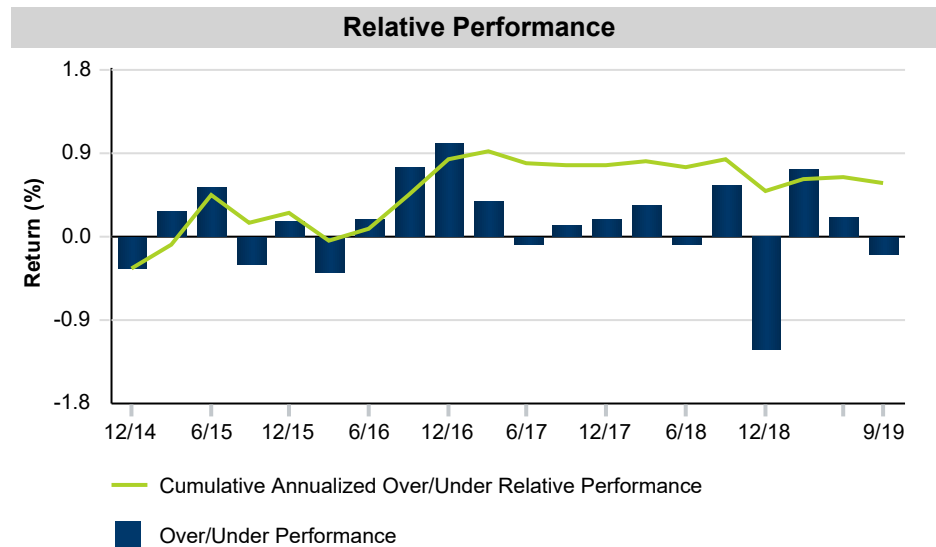
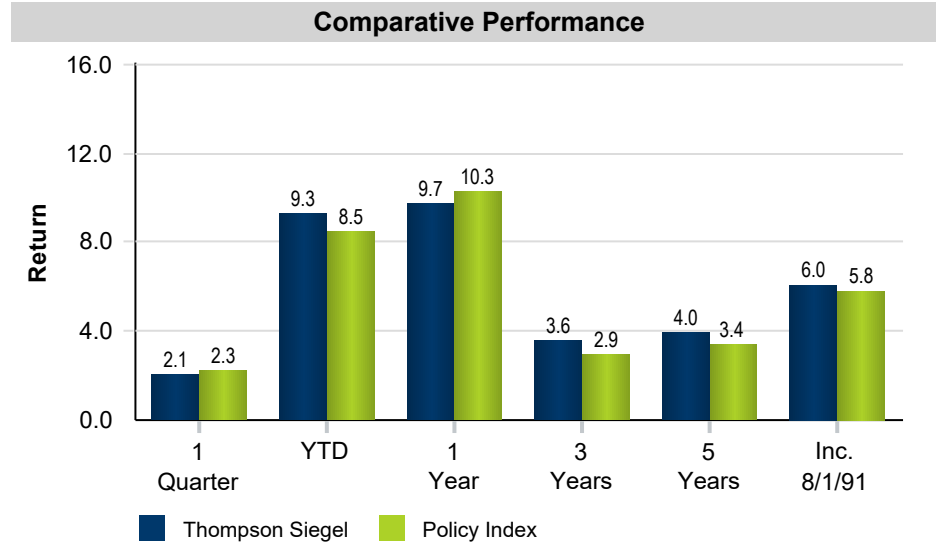


Rolling 3 Years Performance



Manager Summary

Thompson Siegel vs IM U.S. Broad Market Core+ Fixed Income (SA+CF)
 Periods Ended September 30, 2019

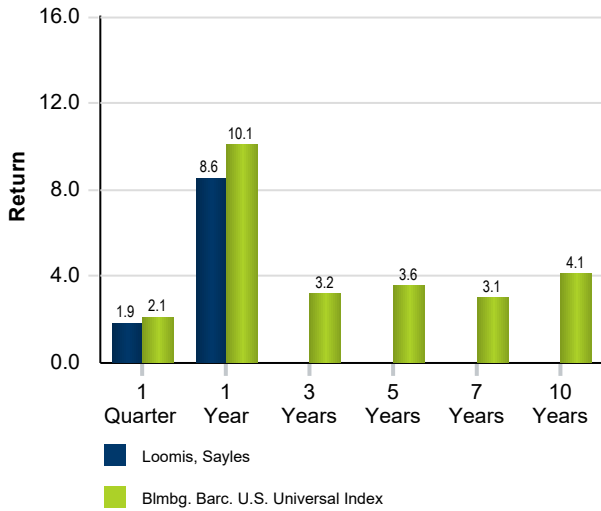


Performance Summary

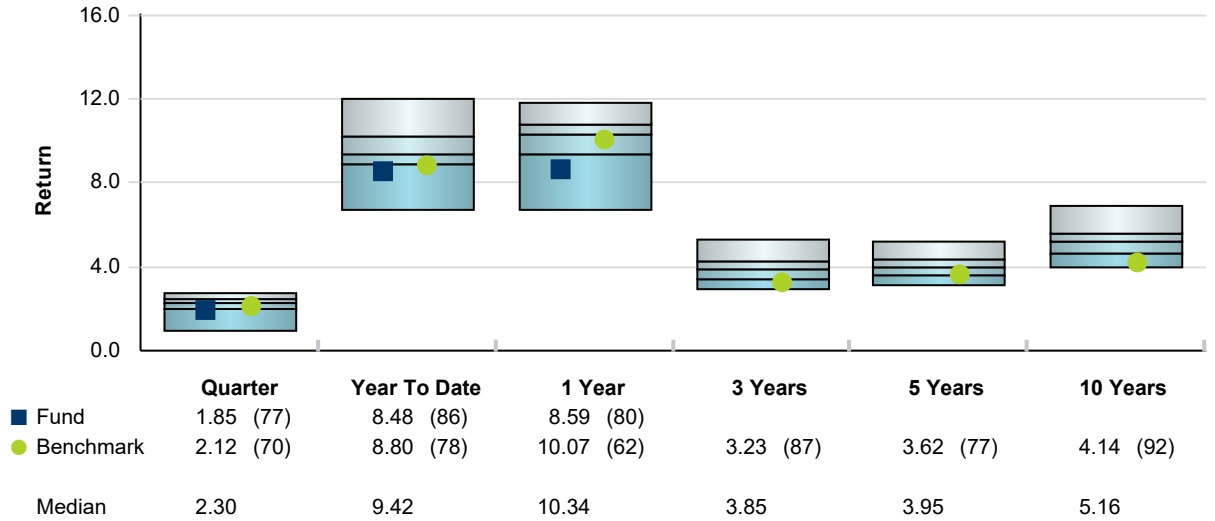
Loomis, Sayles

Periods Ended September 30, 2019

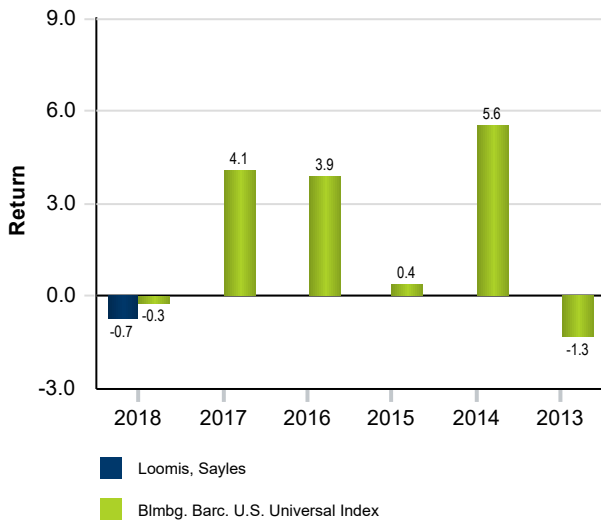
Comparative Performance



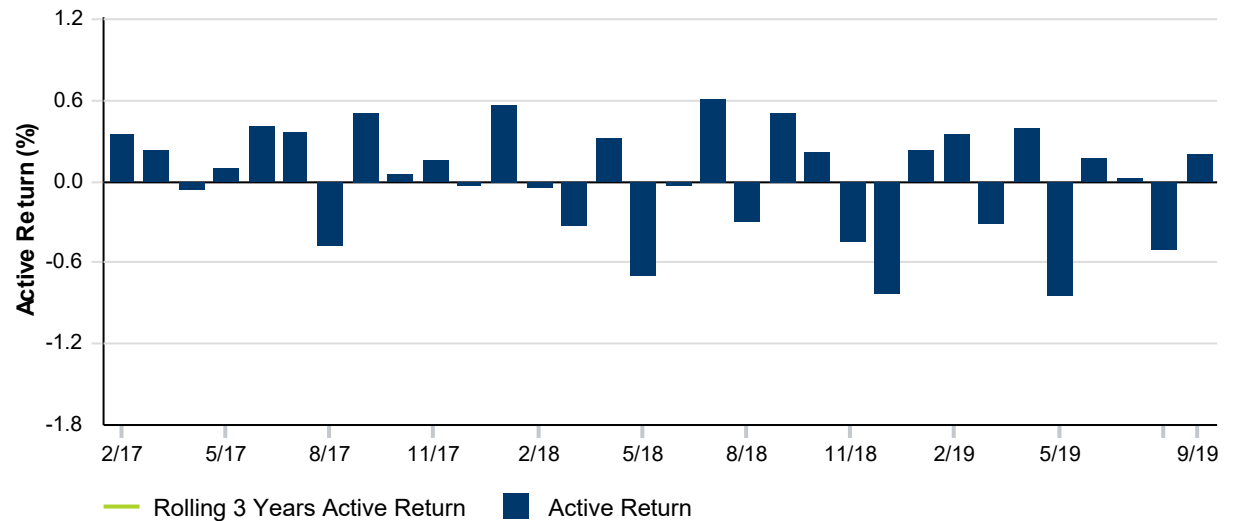
Peer Group Analysis: IM U.S. Broad Market Core+ Fixed Income (SA+CF)



Comparative Performance



Rolling 3 Years Performance

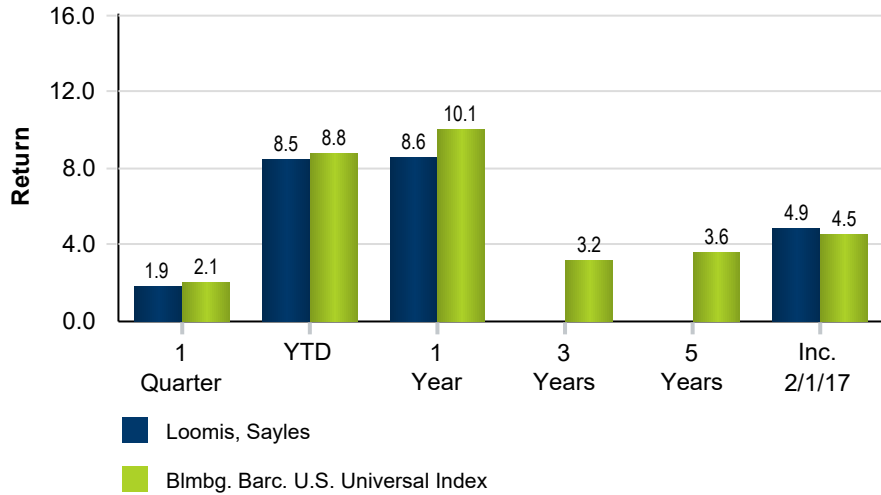


Manager Summary

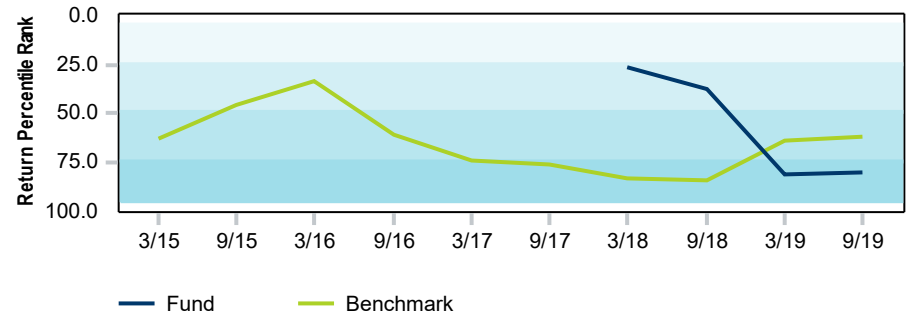
Loomis, Sayles vs IM U.S. Broad Market Core+ Fixed Income (SA+CF)

Periods Ended September 30, 2019

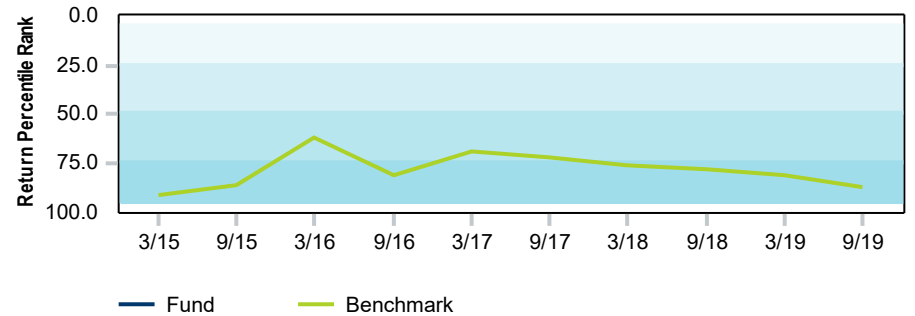
Comparative Performance



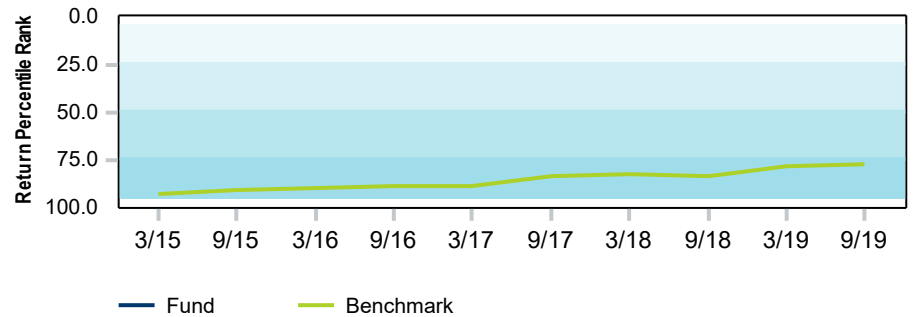
1 Year Rolling Percentile Ranking



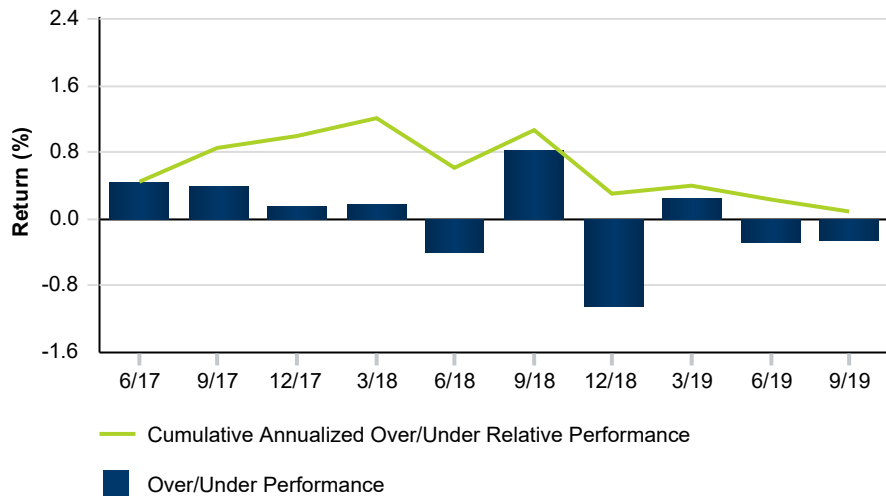
3 Year Rolling Percentile Ranking



5 Year Rolling Percentile Ranking



Relative Performance

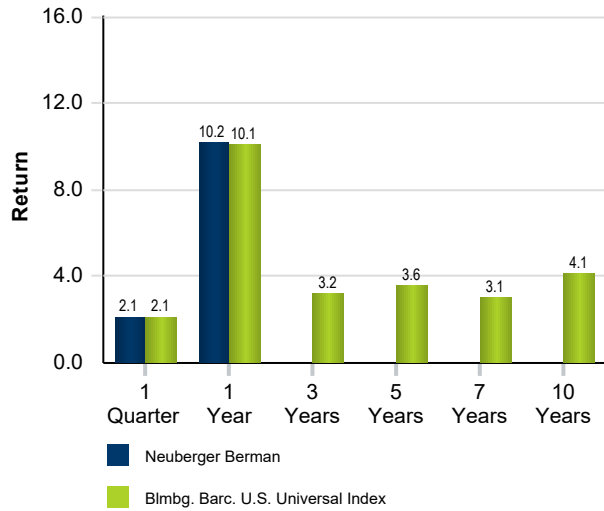


Performance Summary

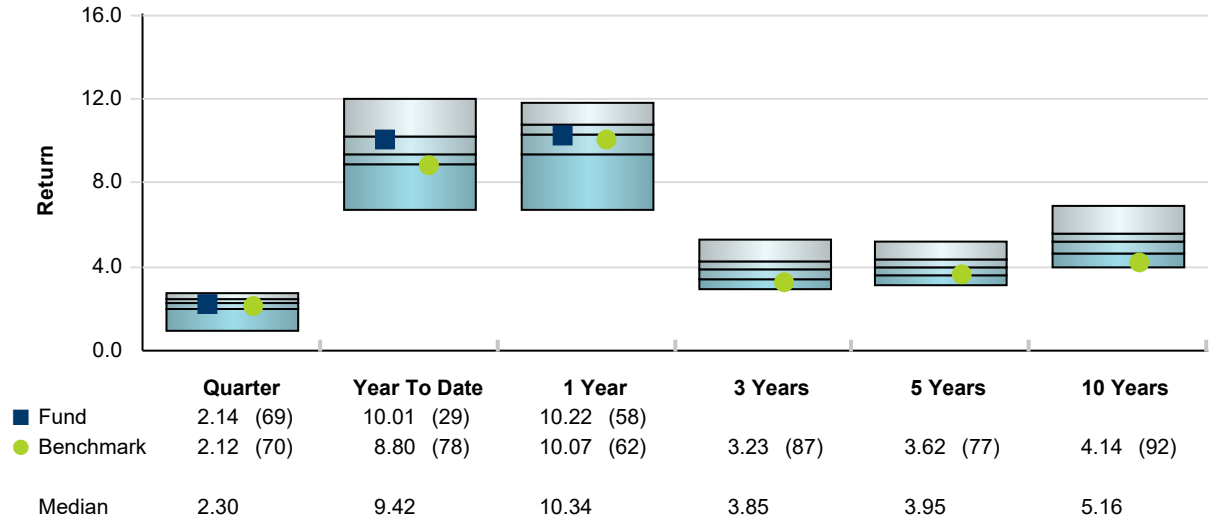
Neuberger Berman

Periods Ended September 30, 2019

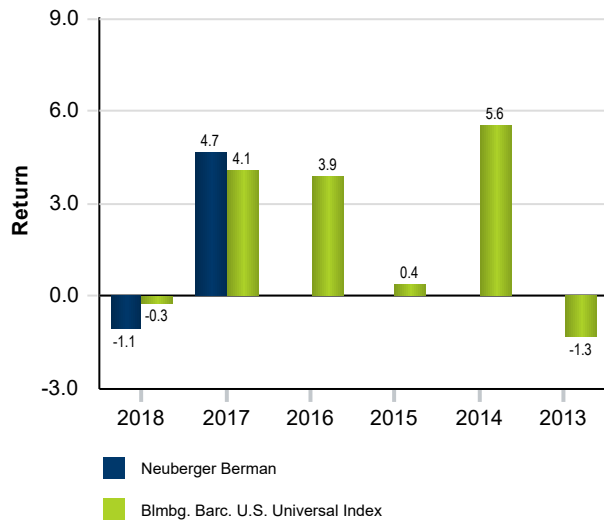
Comparative Performance



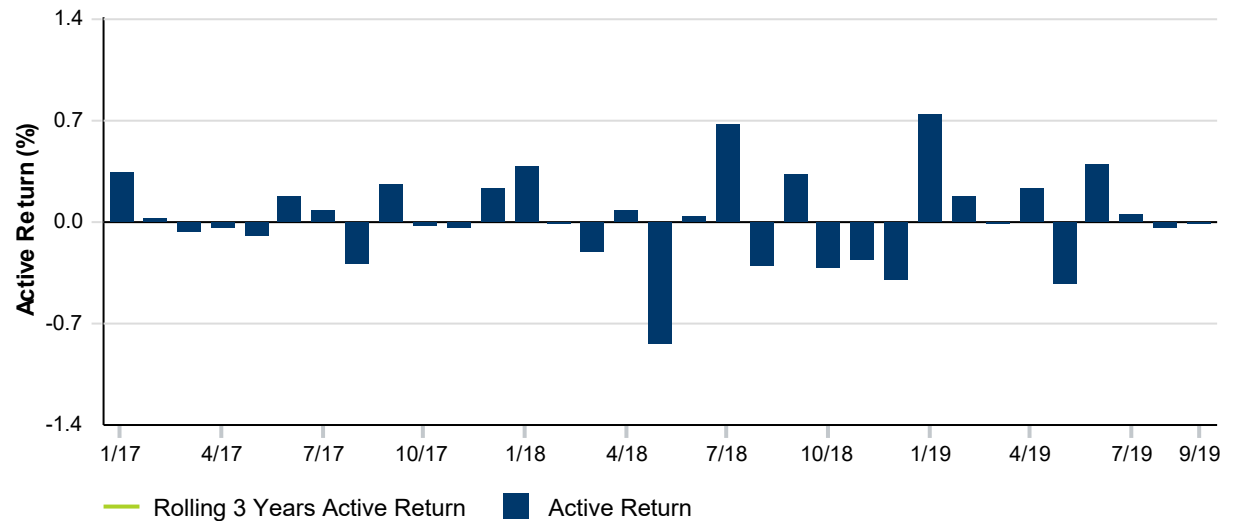
Peer Group Analysis: IM U.S. Broad Market Core+ Fixed Income (SA+CF)



Comparative Performance

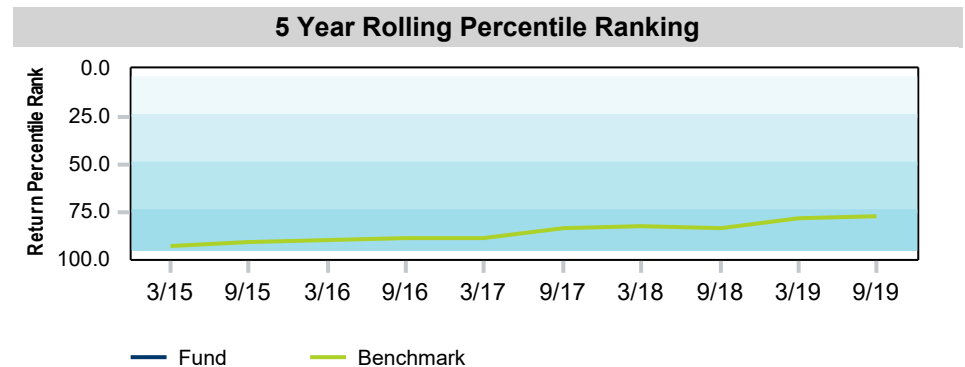
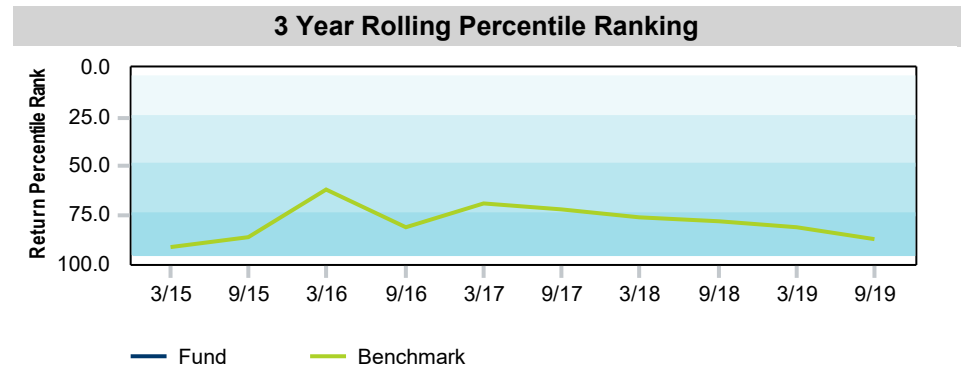
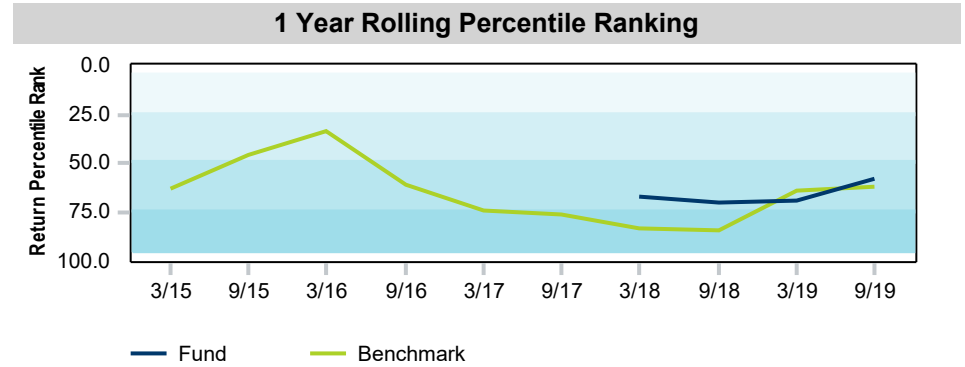
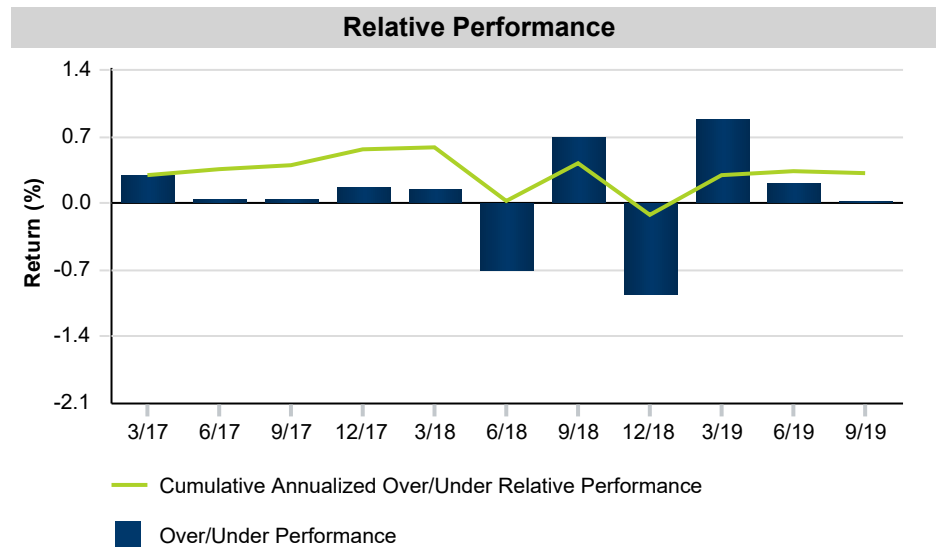
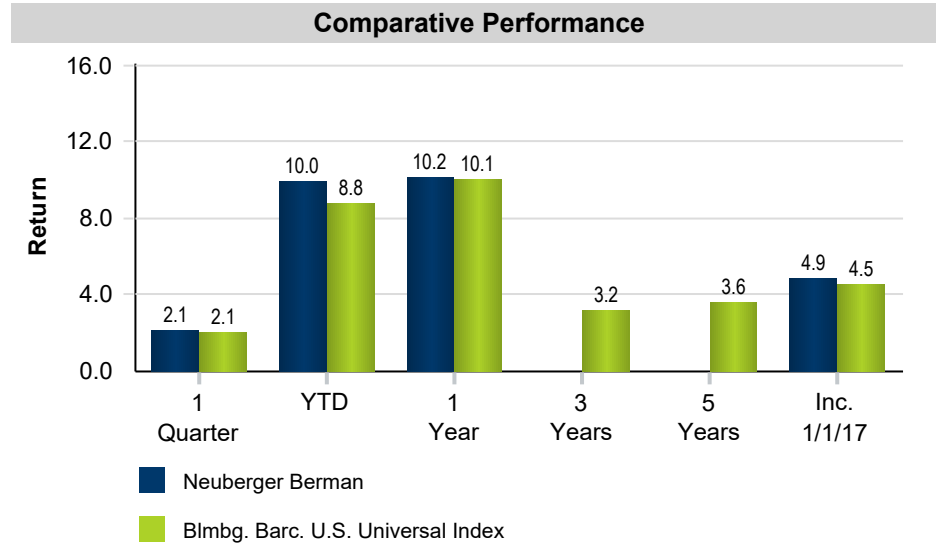


Rolling 3 Years Performance



Manager Summary

Neuberger Berman vs IM U.S. Broad Market Core+ Fixed Income (SA+CF)
 Periods Ended September 30, 2019





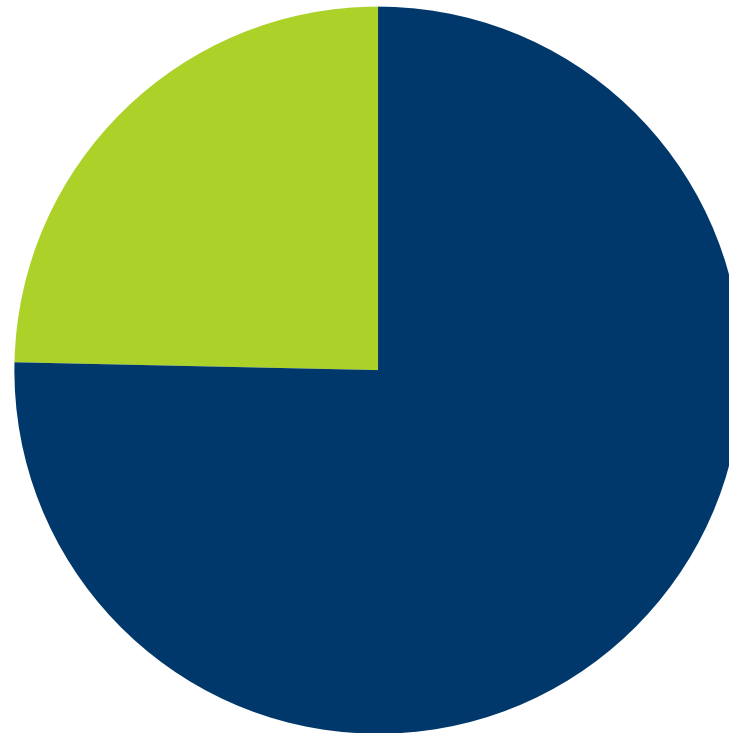
Real Estate Composite

Asset Allocation By Manager

Real Estate Composite

Periods Ended September 30, 2019

Sep-2019 : 231,272,501

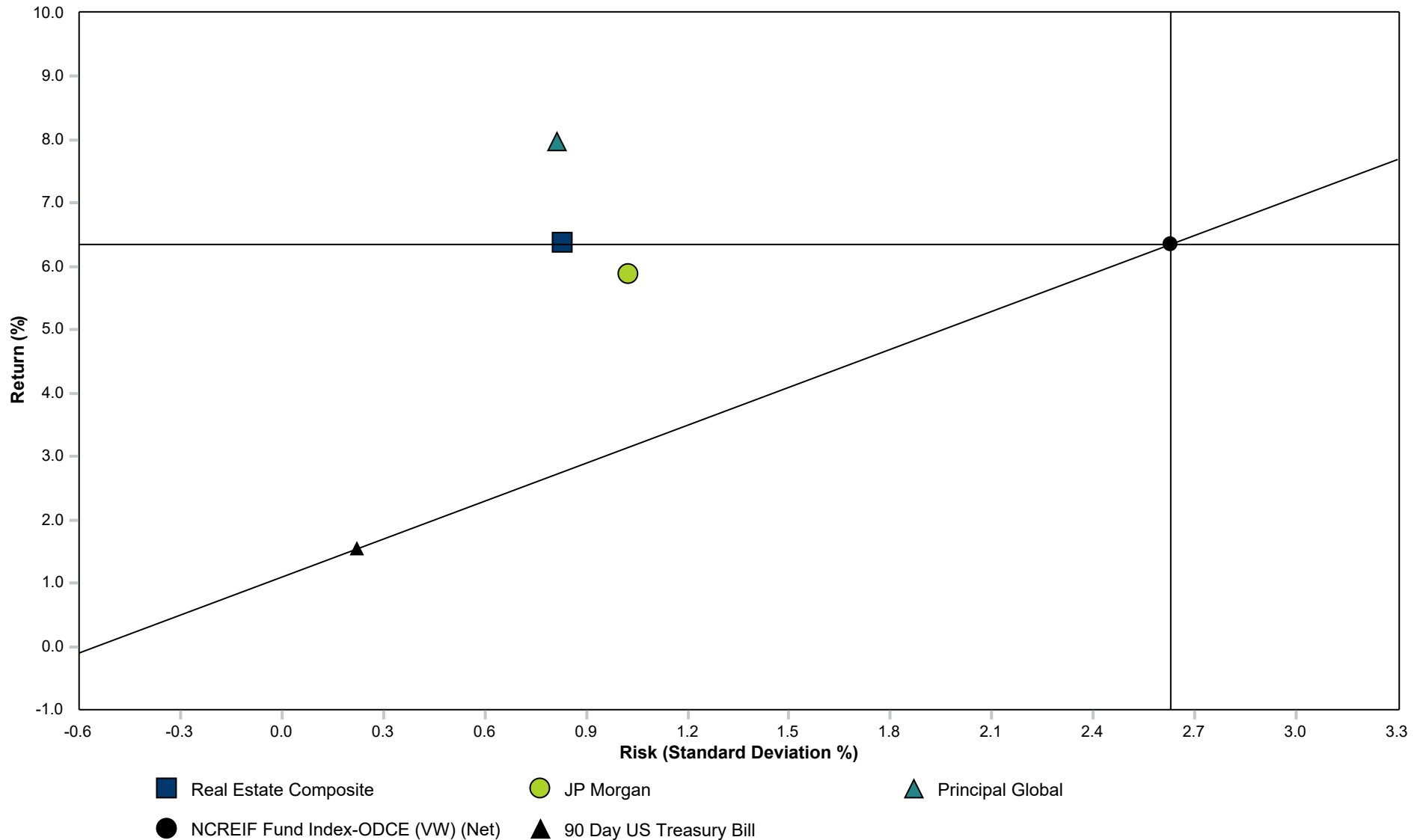


	Market Value \$	Allocation (%)
■ JP Morgan	174,257,852	75.3
■ Principal Global	57,014,649	24.7

Risk vs. Return

Real Estate Composite

Periods Ended 3 Years Ending September 30, 2019



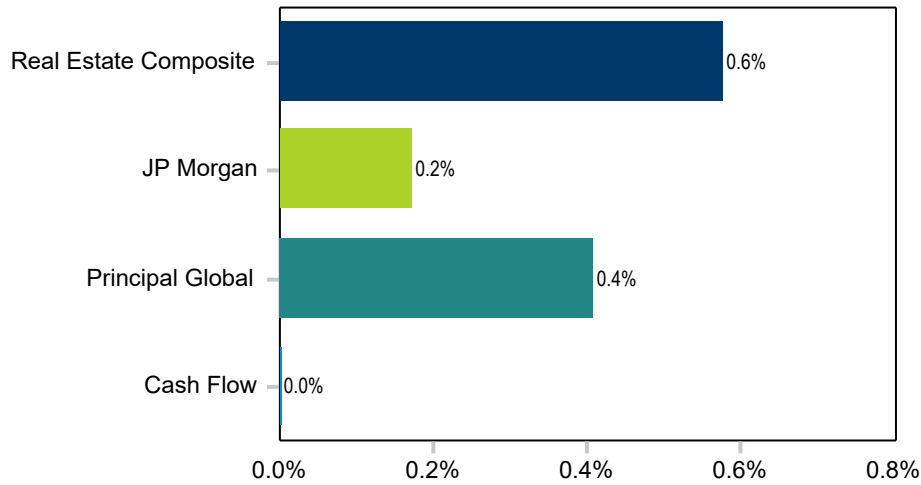
Calculation based on monthly periodicity.

Return and Risk Contribution

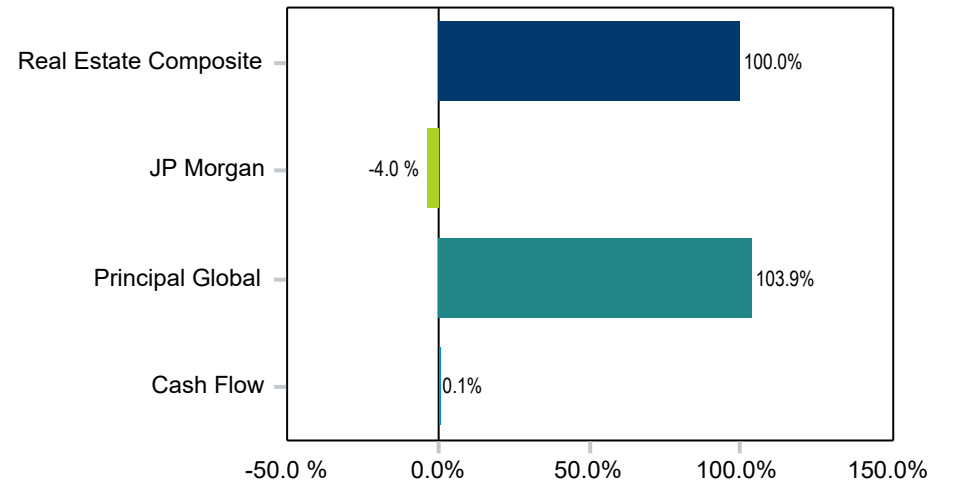
Real Estate Composite

Periods Ended September 30, 2019

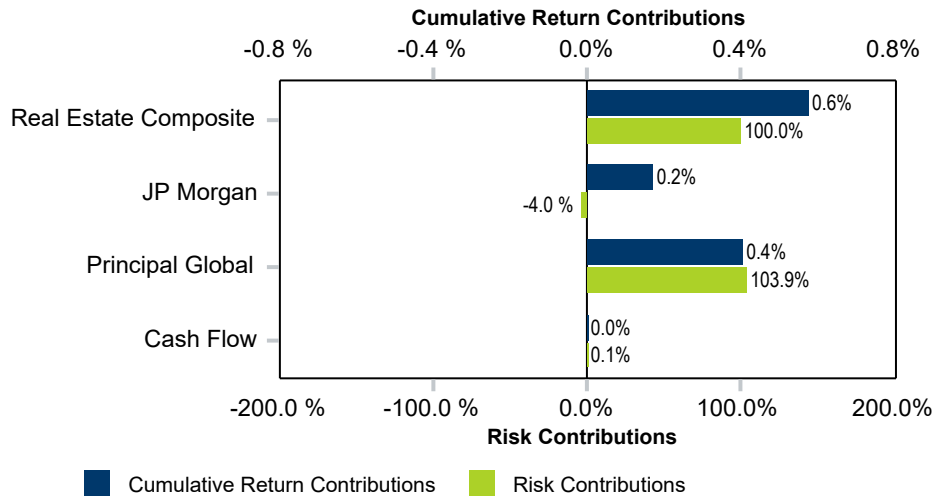
Cumulative Return Contributions



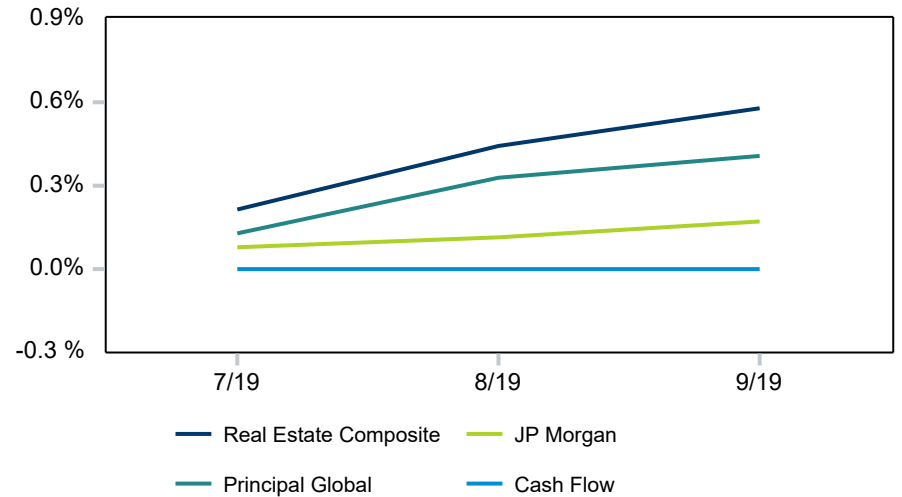
Risk Contributions



Cumulative Return and Risk Contributions



Cumulative Return Contributions History





MLP Composite

Summary Statistics

Harvest MLP

Periods Ended 1 Year Ending September 30, 2019

Return Summary Statistics

	<u>Harvest MLP</u>	<u>S&P MLP Total Return Index</u>
Maximum Return	15.39	13.16
Minimum Return	-10.98	-9.04
Return	-10.07	-6.88
Cumulative Return	-10.07	-6.88
Active Return	-2.87	0.00
Excess Return	-10.43	-7.56

Risk Summary Statistics

	<u>Harvest MLP</u>	<u>S&P MLP Total Return Index</u>
Upside Risk	4.71	4.09
Downside Risk	15.77	13.73
Beta	1.14	1.00

Risk/Return Summary Statistics

	<u>Harvest MLP</u>	<u>S&P MLP Total Return Index</u>
Standard Deviation	22.57	19.68
Alpha	-2.14	0.00
Active Return/Risk	-0.13	0.00
Tracking Error	4.12	0.00
Information Ratio	-0.70	
Sharpe Ratio	-0.46	-0.38

Correlation Statistics

	<u>Harvest MLP</u>	<u>S&P MLP Total Return Index</u>
R-Squared	0.98	1.00
Actual Correlation	0.99	1.00

Summary Statistics

Tortoise MLP

Periods Ended 1 Year Ending September 30, 2019

Return Summary Statistics

	<u>Tortoise MLP</u>	<u>S&P MLP Total Return Index</u>
Maximum Return	13.77	13.16
Minimum Return	-8.85	-9.04
Return	-7.92	-6.88
Cumulative Return	-7.92	-6.88
Active Return	-1.07	0.00
Excess Return	-8.63	-7.56

Risk Summary Statistics

	<u>Tortoise MLP</u>	<u>S&P MLP Total Return Index</u>
Upside Risk	4.34	4.09
Downside Risk	13.34	13.73
Beta	0.99	1.00

Risk/Return Summary Statistics

	<u>Tortoise MLP</u>	<u>S&P MLP Total Return Index</u>
Standard Deviation	20.01	19.68
Alpha	-1.11	0.00
Active Return/Risk	-0.05	0.00
Tracking Error	4.45	0.00
Information Ratio	-0.24	
Sharpe Ratio	-0.43	-0.38

Correlation Statistics

	<u>Tortoise MLP</u>	<u>S&P MLP Total Return Index</u>
R-Squared	0.95	1.00
Actual Correlation	0.98	1.00