



# Quarterly Investment Performance Analysis

Water and Power Employees' Retirement Plan

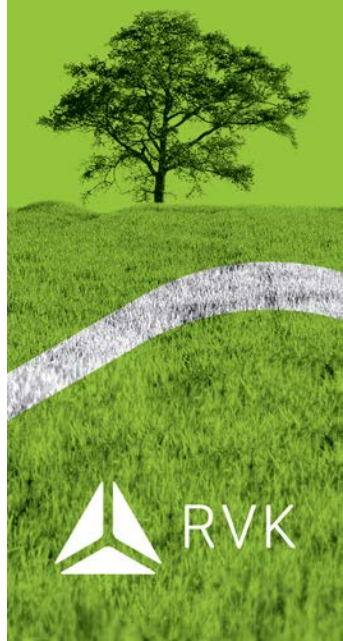
Period Ended: December 31, 2017



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# Executive Summary



### Capital Markets Review

Price action across global financial markets continued to be driven by expectations of ongoing economic growth and generally accommodative central bank policies, with equity markets trading to record levels and global sovereign debt yields continuing to trade within recent ranges. The S&P 500 Index returned 6.6% during Q4, while the MSCI ACW Ex US Index rose 5.0%. For the year, the S&P 500 Index rose 21.8%, but was outpaced by the 27.2% gain of the MSCI ACW Ex US Index. Global commodity and oil markets also experienced a strong year-end, with oil markets breaking out of recent ranges to trade at multi-year highs.

Expectations of a modest acceleration in US inflation were cited as a major factor driving Treasury yields over the quarter, with the 10-year break-even inflation rate rising approximately 0.14%. This was the result of the 10-year nominal Treasury yield rising by approximately 0.08% and the 10-year Treasury Inflation Protected Securities ("TIPS") yield declining 0.06%, as market participants expressed concerns about inflation pressures building from continued low unemployment levels and robust US economic growth.

The nominal Treasury curve continued to flatten over the quarter. Market participants suggest that recent and expected monetary policy actions, as well as expectations for increased Treasury issuance amidst fiscal stimulus policies, are driving short-maturity and mid-maturity yields higher. Comparatively, longer-dated yields proved stable, and reportedly continue to be heavily influenced by relatively modest expectations for sustained US economic growth and building inflation expectations.

The Federal Open Market Committee ("FOMC") increased policy rates during its December meeting, setting the new target range for the Federal Funds rate at 1.25% to 1.50%, with market participants citing minimal price action after the announcement due to it being widely anticipated. This increase was the third in 2017, with the FOMC again highlighting an improving economy and healthy labor market as the chief rationale behind their decision to raise rates. The FOMC also began to unwind positions held in the System Open Market Account in October, as announced at the September FOMC meeting.

Finally, the US dollar continued to depreciate over the quarter, weakening by 1.0% against major currencies amidst continued economic improvements across developed international and emerging markets. The depreciation over the quarter contributed to a total dollar depreciation of nearly 10% for the year.



### **Total Fund**

During the fourth quarter, the Retirement Plan outperformed its policy benchmark by 10 basis points and ranked in the 43<sup>rd</sup> percentile among peers. The Health Plan outperformed its policy benchmark by 17 basis points and ranked in the 38<sup>th</sup> percentile among peers.

Over the one-year trailing period, the Retirement Plan outperformed its policy benchmark by 132 basis points, and ranked in the 29<sup>th</sup> percentile among peers. The Health Plan outperformed the policy benchmark by 154 basis points, and ranked in the 23<sup>rd</sup> percentile among peers.

### **Domestic Equity**

The Domestic Equity Composite underperformed the Russell 3000 Index for the quarter, returning 6.25% versus 6.34% for the index. This performance ranked the composite in the 37<sup>th</sup> percentile among peers. Emerald Small Cap Growth had the highest absolute performance for the quarter, returning 7.94%. Earnest Partners Small Cap Value had the highest relative performance for the quarter, returning 6.76% and outperforming the Russell 2000 Value Index by 471 basis points. Fred Alger Large Cap Growth had the lowest absolute and relative performance returning 5.10% and underperforming the Russell 1000 Growth Index by 276 basis points.

### **International Equity**

The International Equity Composite slightly underperformed the MSCI ACW Ex US IM Index for the quarter, returning 5.22% versus 5.23% for the index. This performance ranked the composite in the 34<sup>th</sup> percentile among peers. LA Capital Emerging had the highest absolute performance for the quarter, returning 7.25%. MFS Developed Int'l had the highest relative performance for the quarter, returning 6.00% and outperforming the MSCI Wrld Ex US IM Index by 154 basis points. Fidelity Developed Int'l had the lowest absolute performance, returning 3.49% for the quarter. Wellington Emerging had the lowest relative performance, returning 6.23% and underperforming the MSCI Emg Mkts IM Index by 144 basis points.

### **Fixed Income**

The Fixed Income Composite outperformed the Fixed Income Custom Index for the quarter, returning 0.45% versus 0.40% for the index. This performance ranked the composite in the 64<sup>th</sup> percentile among peers. Neuberger Unconstrained had the highest absolute and relative performance for the quarter, returning 1.34% and outperforming the 67% B Global Credit/33% B Global High Yield by 43 basis points. Wells Principal Protection had the lowest absolute performance over the quarter returning -0.19%.



## Alternative Asset Classes

### REAL RETURN

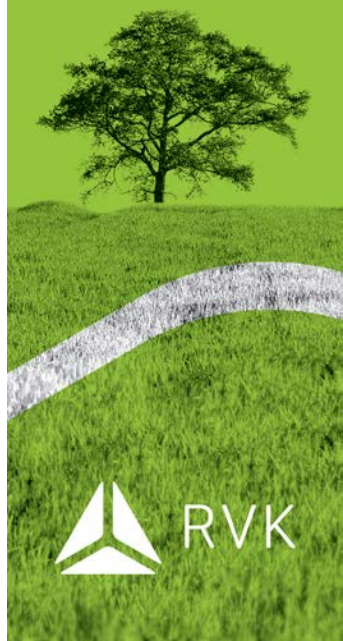
The Real Return Composite outperformed the Consumer Price Index+3% by 214 basis points during the fourth quarter. Invesco Commodity was the largest driver of positive performance returning 7.87% during the quarter, and outperforming its benchmark by 316 basis points. WAMCO also posted positive performance of 2.29%, but underperformed its benchmark by 22 basis points. Hancock Timberland and Molpus IV both detracted from composite performance, returning -0.40% and 0.23%, respectively.

### HEDGE FUNDS

The Hedge Funds Composite posted positive absolute returns, outperforming the BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag) by 12 basis points during the fourth quarter. MS Convergent had the highest absolute and relative performance for the quarter, returning 2.76% and outperforming the BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag) by 176 basis points. GAM Divergent had the lowest absolute and relative performance for the quarter, returning -0.14% and underperforming the BofA ML 3 Mo US T-Bill Index+3% (1Mo Lag) by 114 basis points.



# Watch List



**Water and Power Employees' Retirement Plan**  
**Watch List Summary**

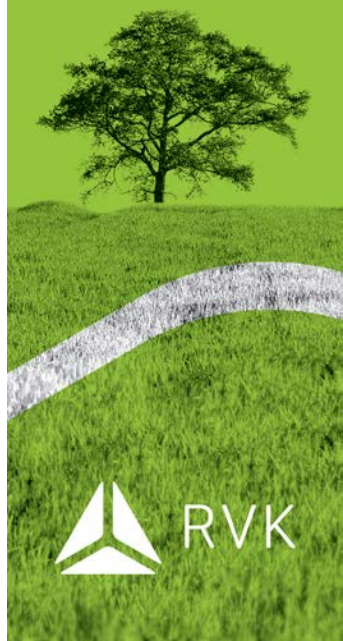
**As of December 31, 2017**

Watch List Managers	Date Qualified for Watch	Date Board Approved Manager for Watch	Recent Performance					Reasons on Watch	Recommendation
			QTD	FYTD	1 Year	3 Year	5 Year		
Continue On Watch									
Fred Alger Large Cap Growth (SA) <i>Russell 1000 Growth Index</i>	12/31/2015	4/13/2016	5.10 7.86	11.21 14.23	29.32 30.21	9.71 13.79	15.17 17.33	Failure to meet performance criteria.	The Board approved the recommendation to terminate Fred Alger Large Cap Growth (SA) on 11/08/2017. A RFP is in process.
T. Rowe Price Large Cap Growth (SA) <i>Russell 1000 Growth Index</i>	12/31/2016	2/8/2017	7.84 7.86	15.31 14.23	36.61 30.21	17.57 13.79	20.77 17.33	Portfolio Manager turnover.	The manager last provided an update to the Board on 04/12/2017.
Fidelity Developed Int'l (SA) <i>International Developed Blend</i>	9/30/2016	11/9/2016	3.49 4.46	9.55 10.59	25.16 25.17	7.87 8.11	8.27 7.97	Portfolio Manager turnover.	The manager last provided an update to the Board on 11/08/2017.
JP Morgan Principal Protection (SA) <i>Bloomberg US Int Agg Ex Credit</i>	3/31/2016	5/11/2016	-0.14 -0.13	0.42 0.50	1.86 1.80	N/A N/A	N/A N/A	Organization concerns.	Performance and management are continuously being monitored. The manager last provided an update to the Board on 09/13/2017.
Macquarie Unconstrained (SA) <i>67% B Global Credit/33% B Global High Yield</i>	9/30/2016	11/9/2016	0.88 0.91	2.80 2.65	7.86 6.73	N/A N/A	N/A N/A	Organization concerns.	Performance and management are continuously being monitored. The manager last provided an update to the Board on 06/28/2017.
WAMCO (SA) <i>Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)</i>	3/31/2017	4/12/2017	2.29 2.51	2.86 3.02	3.33 3.32	4.09 4.04	2.96 3.02	Failure to meet performance criteria.	Performance and management are continuously being monitored. The manager last provided an update to the Board on 01/11/2017.
MS Convergent (CF) (Lagged-1 Mo) - Net <i>BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)</i>	3/31/2016	6/8/2016	2.76 1.00	3.09 2.02	7.39 3.81	1.51 3.38	N/A N/A	Failure to meet performance criteria.	At the 04/12/17 meeting, the Board interviewed and selected a replacement manager for the Hedge Fund of Funds mandate.

Performance shown is gross of fees.



# Capital Markets Review

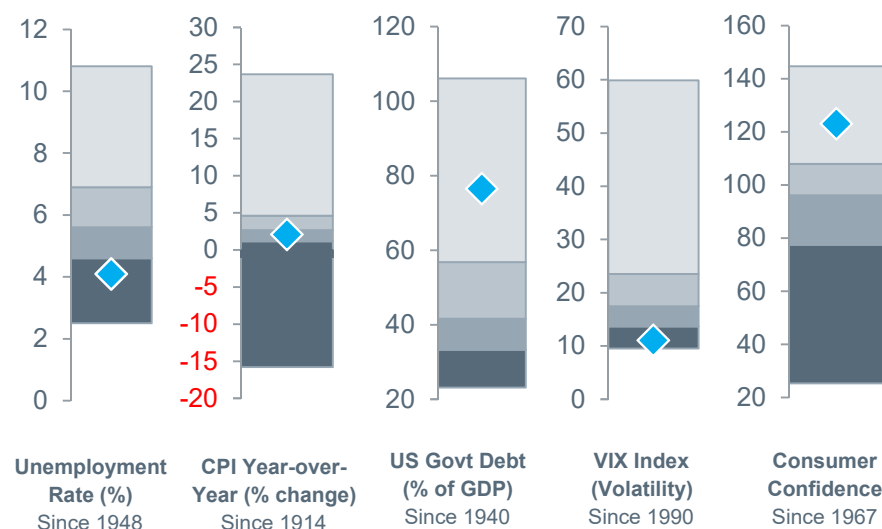


## Fourth Quarter Economic Environment

## Key Economic Indicators

Price action across global financial markets continued to be driven by expectations of ongoing economic growth and generally accommodative central bank policies, with equity markets trading to record levels and global sovereign debt yields continuing to trade within recent ranges. The nominal Treasury curve continued to flatten over the quarter. Market participants suggest that recent and expected monetary policy actions, as well as expectations for increased Treasury issuance amidst fiscal stimulus policies, are driving short-maturity and mid-maturity yields higher. Comparatively, longer-dated yields proved stable, and reportedly continue to be heavily influenced by relatively modest expectations for sustained US economic growth and building inflation expectations. Finally, the US dollar continued to depreciate over the quarter, weakening by 1% against major currencies amidst continued economic improvements across developed international and emerging markets. The depreciation over the quarter contributed to a total dollar depreciation of nearly 10% for the year.

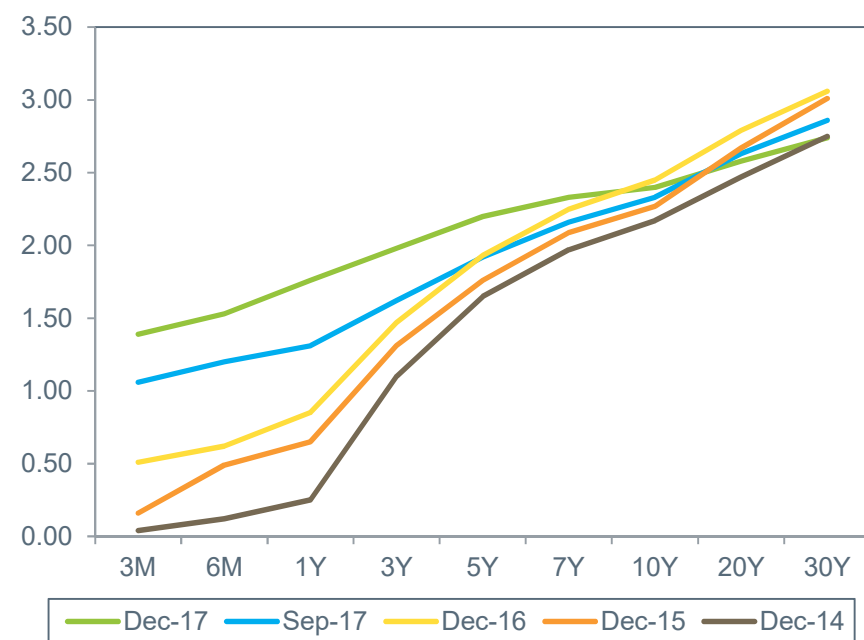
## Key Economic Indicators



Economic Indicators	Dec-17	Sep-17	Dec-16	Dec-14	20 Yr
Federal Funds Rate (%)	1.33 ▲	1.06	0.55	0.06	2.12
Breakeven Infl. - 1 Yr (%)	0.85 ▼	1.24	1.27	-0.21	N/A
Breakeven Infl. - 10 Yr (%)	1.98 ▲	1.85	1.97	1.68	N/A
CPI YoY (Headline) (%)	2.1 ▼	2.2	2.1	0.8	2.1
Unemployment Rate (%)	4.1 ▼	4.2	4.7	5.6	5.9
Real GDP YoY (%)	2.5 ▲	2.3	1.8	2.7	2.3
PMI - Manufacturing	59.3 ▼	60.2	54.3	54.7	52.4
USD Total Wtd Idx	87.47 ▼	88.10	95.72	85.07	86.73
WTI Crude Oil per Barrel (\$)	60.4 ▲	51.7	53.7	53.3	57.5
Gold Spot per Oz (\$)	1,303 ▲	1,280	1,152	1,185	831

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	6.64	21.83	21.83	15.79	8.50
Russell 2000	3.34	14.65	14.65	14.12	8.71
MSCI EAFE (Net)	4.23	25.03	25.03	7.90	1.94
MSCI EAFE SC (Net)	6.05	33.01	33.01	12.85	5.77
MSCI Emg Mkts (Net)	7.44	37.28	37.28	4.35	1.68
Bloomberg US Agg Bond	0.39	3.54	3.54	2.10	4.01
BofA ML 3 Mo US T-Bill	0.28	0.86	0.86	0.27	0.39
NCREIF ODCE (Gross)	2.07	7.62	7.62	11.53	5.03
Wilshire US REIT	1.70	4.18	4.18	9.35	7.28
HFRI FOF Comp	1.99	7.69	7.69	3.99	1.08
Bloomberg Cmtty (TR)	4.71	1.70	1.70	-8.45	-6.83

## Treasury Yield Curve (%)



## Fourth Quarter Review

## Broad Market

A small subset of companies particularly dominated broad market returns in 2017, with FAANG (Facebook, Amazon, Apple, Netflix, and Google), averaging returns of nearly 50% during 2017. As a result, many active managers with light or absent exposure to this lineup of companies experienced difficulty in keeping pace with their respective benchmarks.

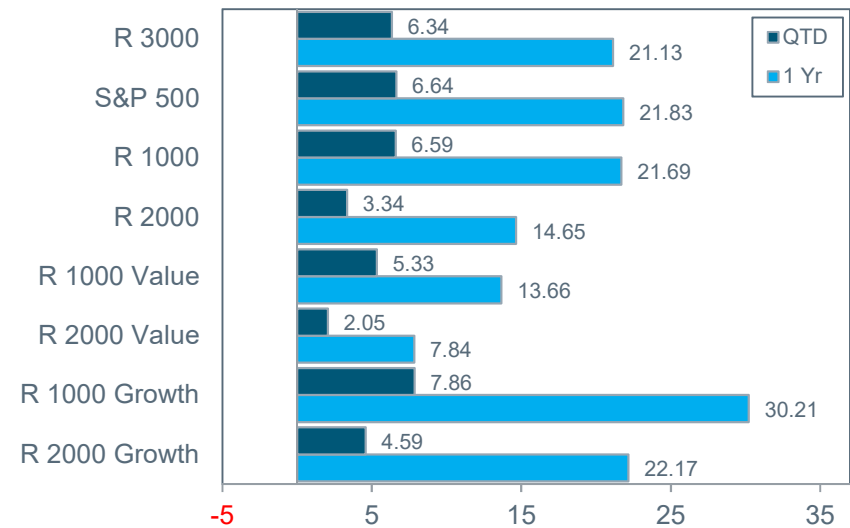
## Market Cap

Large cap stocks outpaced small cap stocks for the quarter, with the Russell 1000 outperforming the Russell 2000 by 325 basis points.

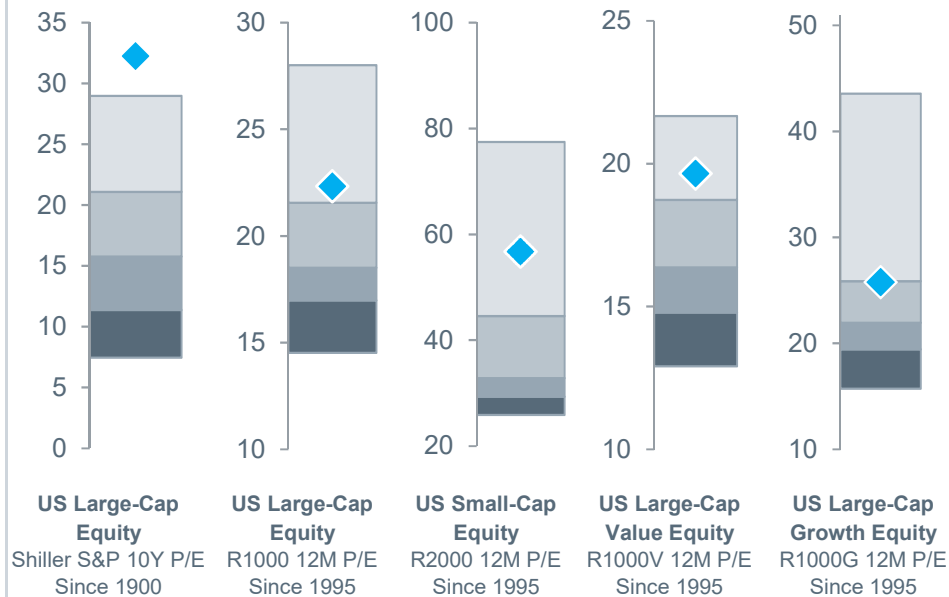
## Style and Sector

Growth stocks led value stocks for the quarter, and the Russell 1000 Growth Index outperformed its value counterpart by 16.6% for the year. Consumer discretionary and tech stocks posted quarterly returns upwards of 9%, with tech stocks posting a 2017 return of nearly 39%.

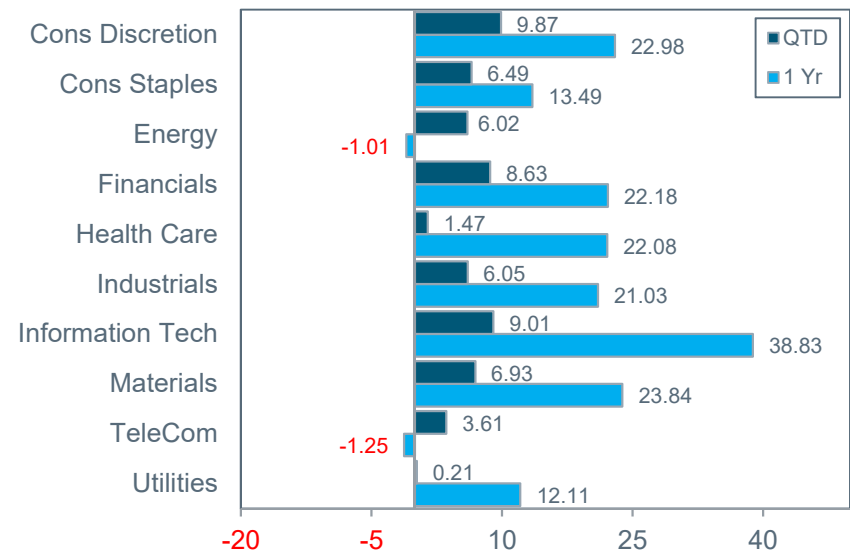
## Style and Capitalization Market Performance (%)



## Valuations



## S&amp;P 500 Index Sector Performance (%)



Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition.  
P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

## Fourth Quarter Review

## Developed Markets

Developed international markets had a strong quarter, though they lagged the US market. However, they outpaced the domestic market for 2017. In 2017, the EAFE Index returned 25.03% vs. 21.13% for the Russell 3000 Index.

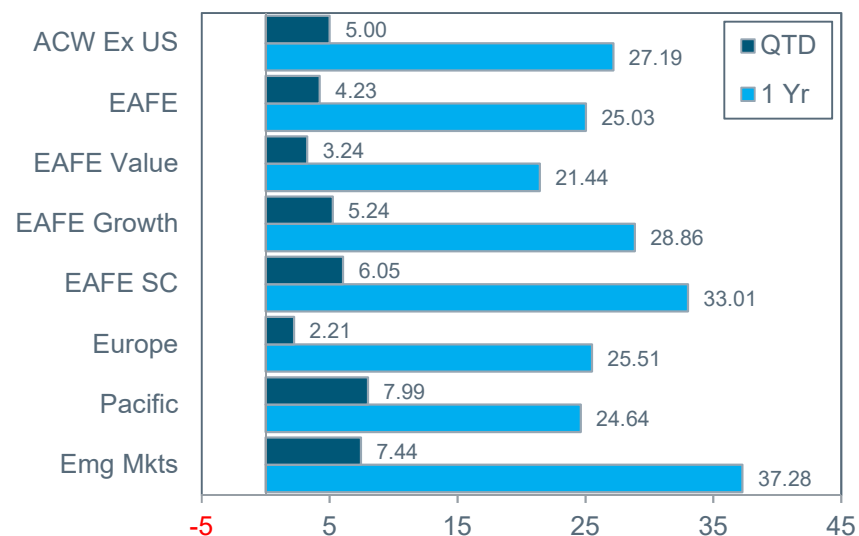
## Emerging Markets

Emerging markets outperformed domestic and developed international markets for both the quarter and year, with the Emerging Markets Index outpacing the EAFE Index by 321 basis points for the quarter, and 1225 basis points for the year.

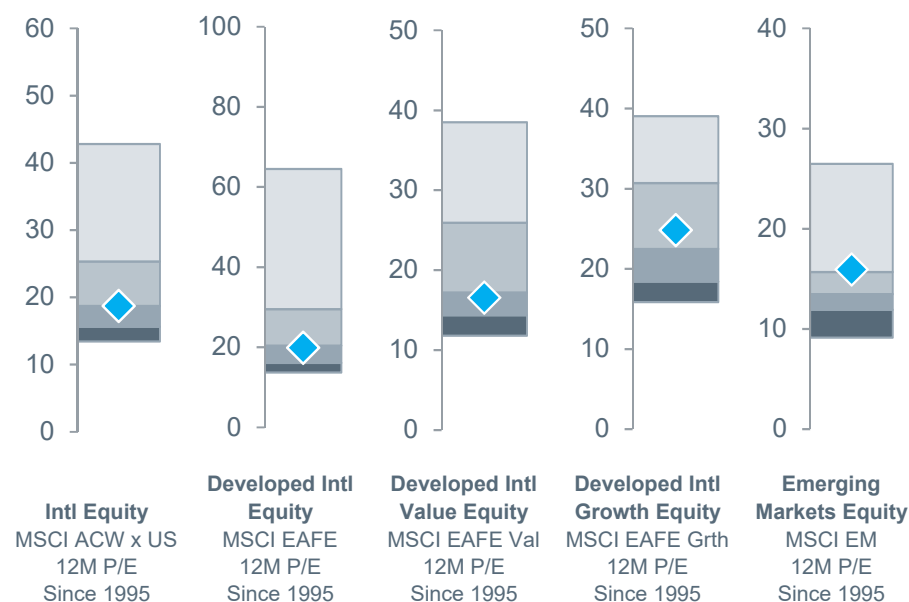
## Market Cap &amp; Style

The outperformance of value stocks last year did not persist, with growth stocks solidly outperforming for the quarter and year. Small cap also outperformed large cap for both Q4 and 2017.

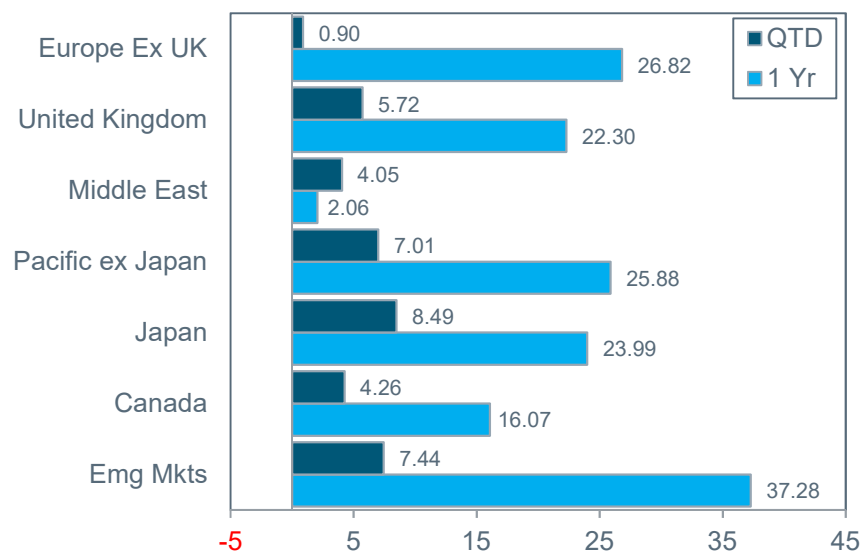
## MSCI Style and Capitalization Market Performance (%)



## Valuations



## MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers.

All returns are shown net of foreign taxes on dividends.

## Fourth Quarter Review

## Broad Market

The flattening yield curve during the quarter and year detracted from the performance of short duration bonds, while contributing to the performance of long duration bonds. A flatter yield curve has caused some tactical investors and portfolio managers to shorten the duration of their portfolios as the perceived relative value of shorter-dated securities has increased.

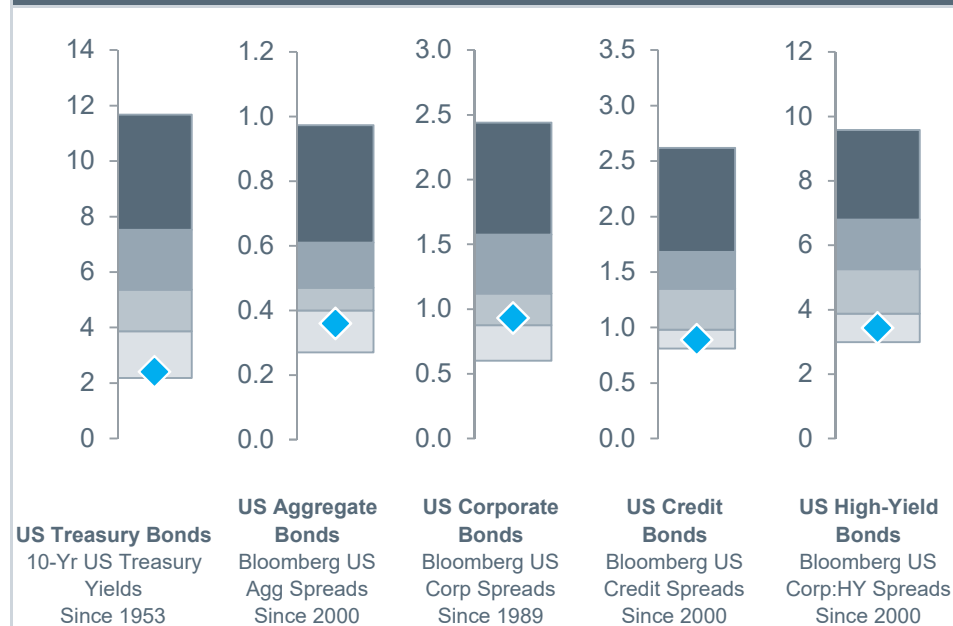
## Credit Market

Investment grade and high yield credit spreads started the year below long-term averages and continued to grind tighter.

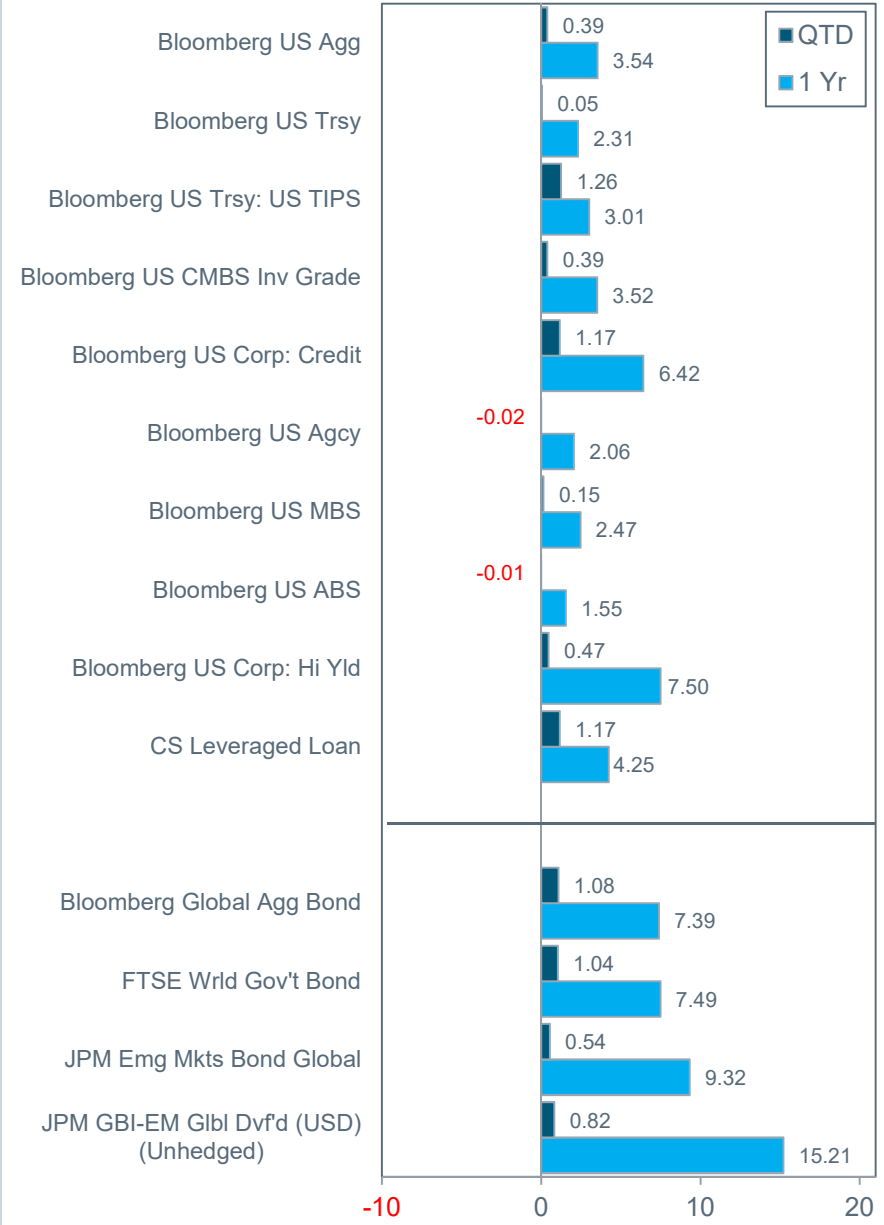
## Emerging Market Debt

Non-US dollar denominated emerging market debt was the best performing sub-asset class within fixed income over the course of 2017, returning 15.21%. Important drivers of this performance included the improving fundamentals and stabilizing political environments experienced by many countries during the year.

## Valuations



## Fixed Income Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.

#### Fourth Quarter Review - Absolute Return

##### General Market - Hedge Funds

Hedge funds largely provided positive performance, as most fundamentally oriented managers benefited from low inter-stock correlation and a positive return environment across most underlying global risk assets. Multi-Strategy manager returns were generally positive during the quarter, but suffered in November due to corporate merger scrutiny by the DoJ. The best performing broad hedge fund category for the year has been traditional Equity Long-Short (ELS).

##### General Market - Global Tactical Asset Allocation (GTAA)

GTAA managers provided strong performance in Q4 to finish an already successful 2017. Global equity and global fixed income markets were broadly supportive during the quarter, providing a welcome backdrop for most multi-asset strategies. Although GTAA managers performed well in absolute terms, most modestly underperformed relatively to a static, undiversified blend of US 60/40. The modest underperformance of tactical managers relative to this static benchmark was generally pronounced for managers who adhere to value-oriented investment processes.

#### Fourth Quarter Review - Real Assets

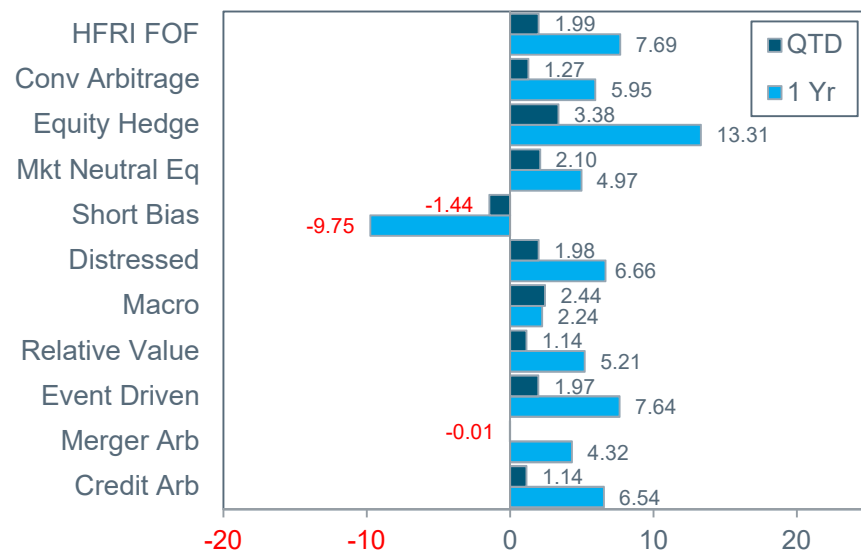
##### General Market - Diversified Inflation Strategies (DIS)

Performance for Diversified Inflation Strategies ("DIS") in Q4 ranged widely, with managers providing positive performance in a quarter where market-based measures of future expected inflation increased. Market expectations increased from 1.85% to 1.98% based on the 10 year Treasury break-evens.

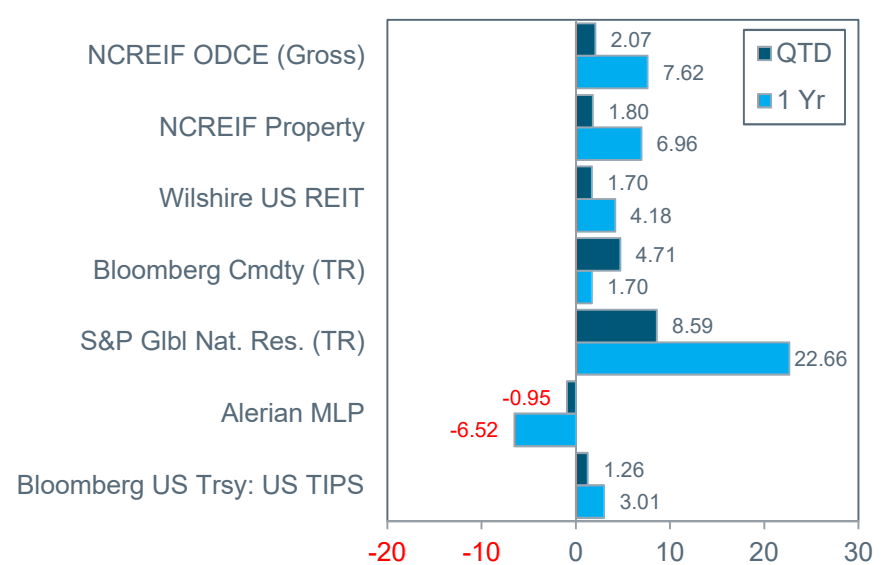
##### General Market - Real Estate

Real estate valuations remain healthy, supported by continuing strength in the overall economy. The core private real estate index, NCREIF-ODCE returned 2.1% during Q4, comprised of 1.1% income and 1.0% appreciation. Market participants characterized this as another quarter of normalizing returns reinforcing investor expectations of lower returns going forward as the market enters the later stages of the recovery. Investors in publicly traded real estate outperformed their private market counterparts during the quarter as measured by FTSE/NAREIT All REIT's index return of 2.4%.

#### HFRI Hedge Fund Performance (%)



#### Real Asset Performance (%)





## Annual Asset Class Performance

As of December 31, 2017

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Best	61.34	33.16	34.00	35.97	39.38	8.44	78.51	28.60	22.49	20.00	38.82	31.78	15.02	21.31	37.28
	55.81	31.45	26.19	32.18	16.23	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01
	47.25	25.55	21.39	26.34	15.97	2.06	46.78	22.04	13.56	17.59	29.30	13.69	4.23	11.96	25.03
	38.59	20.25	21.36	19.31	11.63	-2.35	31.78	18.88	9.24	17.32	22.78	12.50	1.38	11.77	21.83
	36.18	18.33	13.82	18.37	11.17	-10.01	28.60	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65
	28.96	13.06	13.54	16.32	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71
	28.68	11.14	7.49	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	7.24	7.69
	23.93	10.88	5.34	11.86	6.60	-33.79	18.91	15.06	0.10	10.94	1.86	3.37	-0.31	6.67	7.62
	11.61	9.15	4.91	10.39	5.49	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50
	9.28	8.56	4.55	4.85	5.00	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	4.18
	8.39	8.46	3.07	4.34	1.87	-39.20	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54
	5.88	6.86	2.84	2.72	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01
	4.11	4.34	2.74	2.07	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70
Worst	1.15	1.33	2.43	0.49	-17.55	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86
	S&P 500 - US Large Cap	R 2000 - US Small Cap	MSCI EAFE (Net) - Int'l Dev.	MSCI EAFE SC (Net) - Int'l SC	MSCI EM (Net) - Int'l Emg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp: Hi Yield - FI	Bloombrg US Trsy: US TIPS - FI	Bloombrg US Gov/Credit: Lng - FI	NCREIF ODCE (Gross) - Real Estate	Wilshire US REIT - REITs	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	BofA ML 3 Mo T-Bill - Cash Equiv	

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.

# Total Fund - Retirement

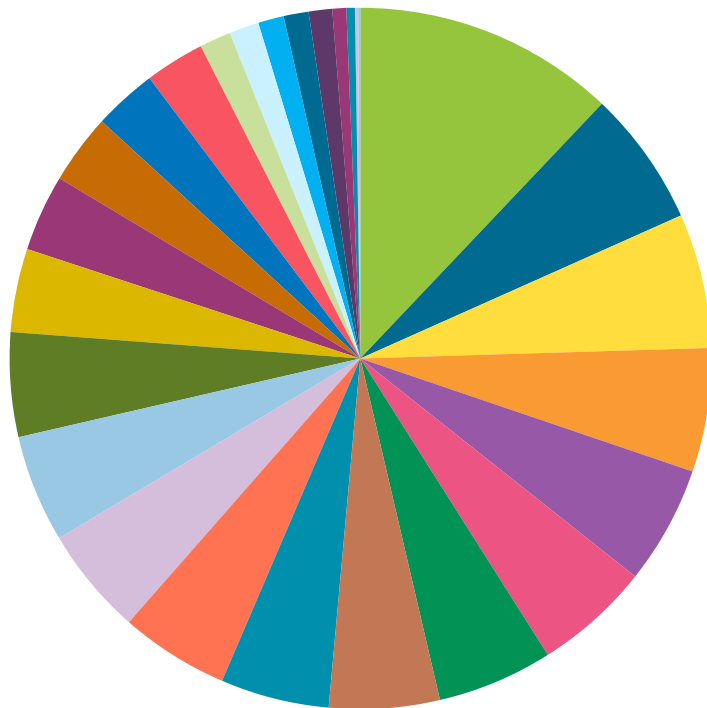


Water and Power Employees' Retirement Plan  
Asset Allocation by Manager and Schedule of Investable Assets - Retirement

As of December 31, 2017

Asset Allocation by Manager

December 31, 2017 : \$12,055,153,251



	Market Value (\$)	Allocation (%)
BlackRock Russell 1000 Index (CF)	1,455,499,146	12.07
Wells Principal Protection (SA)	752,305,771	6.24
JP Morgan Principal Protection (SA)	748,979,134	6.21
Real Estate Composite	687,226,409	5.70
Neuberger Unconstrained (SA)	657,497,403	5.45
T. Rowe Price Large Cap Growth (SA)	644,968,164	5.35
Macquarie Unconstrained (SA)	642,545,059	5.33
MFS Developed Int'l (SA)	612,418,647	5.08
MFS Large Cap Value (SA)	604,038,922	5.01
T. Rowe Price Large Cap Value (SA)	603,763,776	5.01
Fidelity Developed Int'l (SA)	600,122,123	4.98
BlackRock Developed Int'l - Passive (CF)	597,882,043	4.96
Fred Alger Large Cap Growth (SA)	579,333,110	4.81
Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net	463,772,644	3.85
Private Equity Composite	426,317,843	3.54
WAMCO (SA)	387,518,535	3.21
Wellington Emerging (SA)	352,163,593	2.92
LA Capital Emerging (CF)	331,404,105	2.75
Earnest Partners Small Cap Value (SA)	174,794,309	1.45
Emerald Small Cap Growth (SA)	164,797,751	1.37
Pacific Asset Bank Loans (SA)	143,150,866	1.19
Invesco Commodity (CF)	139,858,296	1.16
Cash Equivalents	129,247,905	1.07
MS Convergent (CF) (Lagged-1 Mo)	78,376,701	0.65
GAM Divergent (CF) (Lagged-1 Mo)	46,978,323	0.39
Molpus IV (CF) (Lagged-1 Qtr)	16,811,613	0.14
Hancock Timberland (CF) (Lagged-1 Qtr)	13,381,053	0.11
Transition Account	8	0.00

Schedule of Investable Assets - FYTD

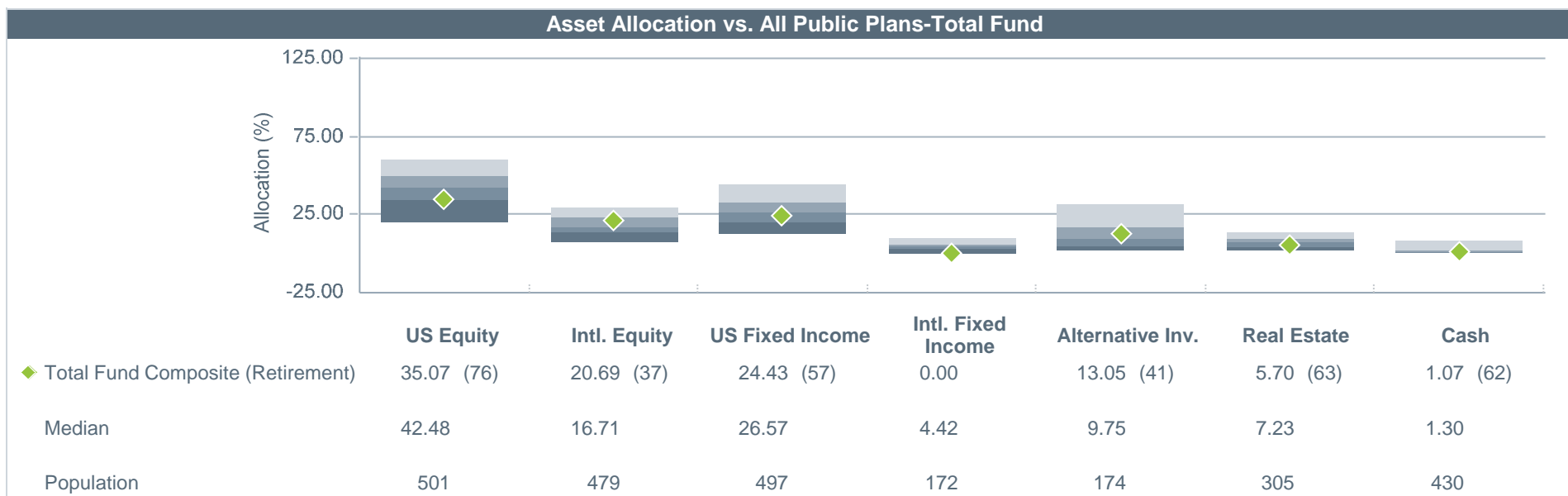
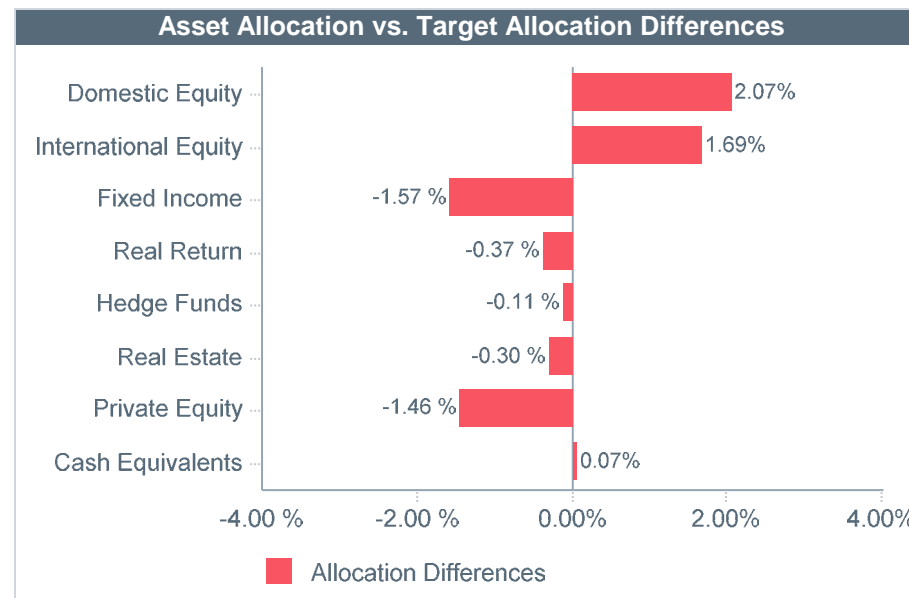
Periods Ending	Beginning Market Value (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
FYTD	11,250,100,561	805,052,690	12,055,153,251	7.55	107.55

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees. Fiscal year ends 06/30.

**Water and Power Employees' Retirement Plan**  
**Total Fund Composite (Retirement) vs. All Public Plans-Total Fund**  
**Asset Allocation vs. Target and Plan Sponsor Peer Group - Retirement**

As of December 31, 2017

Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Domestic Equity	4,227,195,178	35.07	33.00
International Equity	2,493,990,519	20.69	19.00
Fixed Income	2,944,478,233	24.43	26.00
Real Return	557,569,497	4.63	5.00
Hedge Funds	589,127,668	4.89	5.00
Real Estate	687,226,409	5.70	6.00
Private Equity	426,317,843	3.54	5.00
Cash Equivalents	129,247,905	1.07	1.00
Total Fund	12,055,153,251	100.00	100.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding.

**Water and Power Employees' Retirement Plan  
Comparative Performance - Retirement**

**As of December 31, 2017**

	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Total Fund Composite (Retirement)</b>	<b>3.82</b>	<b>7.55</b>	<b>16.53</b>	<b>8.21</b>	<b>9.77</b>	<b>8.68</b>	<b>6.14</b>	<b>6.94</b>	<b>1.68</b>	<b>6.86</b>	<b>6.91</b>	<b>01/01/2005</b>
Retirement Policy Benchmark	3.72	7.32	15.21	7.94	9.27	8.55	6.01	8.40	0.71	6.75	6.71	
Difference	0.10	0.23	1.32	0.27	0.50	0.13	0.13	-1.46	0.97	0.11	0.20	
All Public Plans-Total Fund Median	3.73	7.35	15.48	7.45	9.16	8.28	6.17	7.32	0.19	6.81	6.81	
Rank	43	42	29	18	28	33	53	60	13	49	44	
<b>Domestic Equity Composite</b>	<b>6.25</b>	<b>11.38</b>	<b>23.44</b>	<b>12.02</b>	<b>16.57</b>	<b>13.99</b>	<b>8.76</b>	<b>11.68</b>	<b>1.96</b>	<b>11.82</b>	<b>8.06</b>	<b>04/01/2001</b>
Russell 3000 (Blended) (R)	6.34	11.20	21.13	11.12	15.58	13.50	8.60	12.74	0.48	12.56	7.51	
Difference	-0.09	0.18	2.31	0.90	0.99	0.49	0.16	-1.06	1.48	-0.74	0.55	
All Public Plans-US Equity Segment Median	6.01	10.92	20.32	10.86	15.20	13.04	8.43	12.87	0.14	11.41	7.92	
Rank	37	27	8	5	2	7	28	75	9	34	45	
<b>MFS Large Cap Value (SA)</b>	<b>5.18</b>	<b>8.19</b>	<b>17.82</b>	<b>10.89</b>	<b>15.78</b>	<b>13.63</b>	<b>8.57</b>	<b>15.80</b>	<b>-0.06</b>	<b>11.86</b>	<b>9.85</b>	<b>03/01/2004</b>
Russell 1000 Val Index	5.33	8.61	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	8.02	
Difference	-0.15	-0.42	4.16	2.24	1.74	1.17	1.47	-1.54	3.77	-1.59	1.83	
IM U.S. Large Cap Value Equity (SA+CF) Median	6.29	10.80	17.24	9.80	14.83	13.01	8.18	14.58	-2.28	12.22	8.97	
Rank	78	82	45	25	30	33	38	39	28	56	20	
<b>MFS Large Cap Value (SA) - Net</b>	<b>5.10</b>	<b>8.02</b>	<b>17.46</b>	<b>10.54</b>	<b>15.43</b>	<b>13.29</b>	<b>8.22</b>	<b>15.45</b>	<b>-0.38</b>	<b>11.55</b>	<b>9.48</b>	<b>03/01/2004</b>
Russell 1000 Val Index	5.33	8.61	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	8.02	
Difference	-0.23	-0.59	3.80	1.89	1.39	0.83	1.12	-1.89	3.45	-1.90	1.46	
<b>T. Rowe Price Large Cap Value (SA)</b>	<b>5.41</b>	<b>9.59</b>	<b>16.74</b>	<b>10.29</b>	<b>15.54</b>	<b>13.63</b>	<b>8.78</b>	<b>17.14</b>	<b>-1.90</b>	<b>13.43</b>	<b>9.63</b>	<b>10/01/2004</b>
Russell 1000 Val Index	5.33	8.61	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	8.27	
Difference	0.08	0.98	3.08	1.64	1.50	1.17	1.68	-0.20	1.93	-0.02	1.36	
IM U.S. Large Cap Value Equity (SA+CF) Median	6.29	10.80	17.24	9.80	14.83	13.01	8.18	14.58	-2.28	12.22	9.32	
Rank	74	68	58	42	34	33	36	26	46	35	38	
<b>T. Rowe Price Large Cap Value (SA) - Net</b>	<b>5.33</b>	<b>9.43</b>	<b>16.40</b>	<b>9.96</b>	<b>15.20</b>	<b>13.29</b>	<b>8.43</b>	<b>16.80</b>	<b>-2.19</b>	<b>13.10</b>	<b>9.27</b>	<b>10/01/2004</b>
Russell 1000 Val Index	5.33	8.61	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	8.27	
Difference	0.00	0.82	2.74	1.31	1.16	0.83	1.33	-0.54	1.64	-0.35	1.00	

Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.

**Water and Power Employees' Retirement Plan  
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**As of December 31, 2017**

	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>BlackRock Russell 1000 Index (CF)</b>	<b>6.59</b>	<b>11.36</b>	<b>21.70</b>	<b>11.25</b>	<b>15.74</b>	<b>13.67</b>	<b>8.61</b>	<b>12.09</b>	<b>0.94</b>	<b>13.27</b>	<b>9.54</b>	<b>09/01/2003</b>
Russell 1000 Index	6.59	11.36	21.69	11.23	15.71	13.66	8.59	12.05	0.92	13.24	9.48	
Difference	0.00	0.00	0.01	0.02	0.03	0.01	0.02	0.04	0.02	0.03	0.06	
IM U.S. Large Cap Core Equity (SA+CF) Median	6.68	11.55	21.82	11.15	15.75	13.74	8.75	10.49	1.39	13.43	9.75	
Rank	56	56	52	45	51	53	56	30	56	52	63	
<b>BlackRock Russell 1000 Index (CF) - Net</b>	<b>6.59</b>	<b>11.36</b>	<b>21.70</b>	<b>11.25</b>	<b>15.73</b>	<b>13.66</b>	<b>8.58</b>	<b>12.09</b>	<b>0.93</b>	<b>13.26</b>	<b>9.48</b>	<b>09/01/2003</b>
Russell 1000 Index	6.59	11.36	21.69	11.23	15.71	13.66	8.59	12.05	0.92	13.24	9.48	
Difference	0.00	0.00	0.01	0.02	0.02	0.00	-0.01	0.04	0.01	0.02	0.00	
<b>Fred Alger Large Cap Growth (SA)</b>	<b>5.10</b>	<b>11.21</b>	<b>29.32</b>	<b>9.71</b>	<b>15.17</b>	<b>12.21</b>	<b>7.71</b>	<b>0.38</b>	<b>1.73</b>	<b>11.75</b>	<b>9.31</b>	<b>03/01/2004</b>
Russell 1000 Grth Index	7.86	14.23	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	9.36	
Difference	-2.76	-3.02	-0.89	-4.08	-2.16	-2.60	-2.29	-6.70	-3.94	-1.30	-0.05	
IM U.S. Large Cap Growth Equity (SA+CF) Median	6.92	12.63	28.16	12.14	16.53	13.93	9.55	4.65	4.93	11.90	9.45	
Rank	85	69	42	85	76	87	86	85	77	54	59	
<b>Fred Alger Large Cap Growth (SA) - Net</b>	<b>5.02</b>	<b>11.06</b>	<b>28.95</b>	<b>9.40</b>	<b>14.84</b>	<b>11.88</b>	<b>7.36</b>	<b>0.09</b>	<b>1.44</b>	<b>11.46</b>	<b>8.95</b>	<b>03/01/2004</b>
Russell 1000 Grth Index	7.86	14.23	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	9.36	
Difference	-2.84	-3.17	-1.26	-4.39	-2.49	-2.93	-2.64	-6.99	-4.23	-1.59	-0.41	
<b>T. Rowe Price Large Cap Growth (SA)</b>	<b>7.84</b>	<b>15.31</b>	<b>36.61</b>	<b>17.57</b>	<b>20.77</b>	<b>17.08</b>	<b>N/A</b>	<b>5.78</b>	<b>12.48</b>	<b>9.31</b>	<b>16.07</b>	<b>04/01/2010</b>
Russell 1000 Grth Index	7.86	14.23	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	14.90	
Difference	-0.02	1.08	6.40	3.78	3.44	2.27	N/A	-1.30	6.81	-3.74	1.17	
IM U.S. Large Cap Growth Equity (SA+CF) Median	6.92	12.63	28.16	12.14	16.53	13.93	9.55	4.65	4.93	11.90	14.13	
Rank	23	12	6	1	2	3	N/A	41	7	80	10	
<b>T. Rowe Price Large Cap Growth (SA) - Net</b>	<b>7.75</b>	<b>15.13</b>	<b>36.17</b>	<b>17.19</b>	<b>20.38</b>	<b>16.70</b>	<b>N/A</b>	<b>5.42</b>	<b>12.11</b>	<b>8.99</b>	<b>15.68</b>	<b>04/01/2010</b>
Russell 1000 Grth Index	7.86	14.23	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	14.90	
Difference	-0.11	0.90	5.96	3.40	3.05	1.89	N/A	-1.66	6.44	-4.06	0.78	
<b>Earnest Partners Small Cap Value (SA)</b>	<b>6.76</b>	<b>14.58</b>	<b>23.07</b>	<b>14.49</b>	<b>17.70</b>	<b>15.09</b>	<b>10.67</b>	<b>24.79</b>	<b>-2.28</b>	<b>11.11</b>	<b>10.05</b>	<b>12/01/2004</b>
Russell 2000 Val Index	2.05	7.26	7.84	9.55	13.01	10.84	8.17	31.74	-7.47	4.22	7.64	
Difference	4.71	7.32	15.23	4.94	4.69	4.25	2.50	-6.95	5.19	6.89	2.41	
IM U.S. Small Cap Value Equity (SA+CF) Median	3.70	9.16	11.58	10.52	14.57	12.58	10.09	26.10	-4.30	5.71	9.82	
Rank	8	6	4	4	5	6	38	58	30	6	44	
<b>Earnest Partners Small Cap Value (SA) - Net</b>	<b>6.61</b>	<b>14.26</b>	<b>22.39</b>	<b>13.85</b>	<b>17.05</b>	<b>14.44</b>	<b>9.99</b>	<b>24.08</b>	<b>-2.83</b>	<b>10.53</b>	<b>9.35</b>	<b>12/01/2004</b>
Russell 2000 Val Index	2.05	7.26	7.84	9.55	13.01	10.84	8.17	31.74	-7.47	4.22	7.64	
Difference	4.56	7.00	14.55	4.30	4.04	3.60	1.82	-7.66	4.64	6.31	1.71	

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	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Emerald Small Cap Growth (SA)</b>	<b>7.94</b>	<b>15.28</b>	<b>29.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>10.02</b>	<b>N/A</b>	<b>N/A</b>	<b>15.47</b>	<b>12/01/2015</b>
Russell 2000 Grth Index	4.59	11.09	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	13.21	
Difference	3.35	4.19	7.36	N/A	N/A	N/A	N/A	-1.30	N/A	N/A	2.26	
IM U.S. Small Cap Growth Equity (SA+CF) Median	4.84	11.15	23.47	11.51	15.80	13.16	9.52	11.40	-0.74	4.08	14.36	
Rank	7	11	19	N/A	N/A	N/A	N/A	59	N/A	N/A	38	
<b>Emerald Small Cap Growth (SA) - Net</b>	<b>7.78</b>	<b>14.93</b>	<b>28.77</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.37</b>	<b>N/A</b>	<b>N/A</b>	<b>14.79</b>	<b>12/01/2015</b>
Russell 2000 Grth Index	4.59	11.09	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	13.21	
Difference	3.19	3.84	6.60	N/A	N/A	N/A	N/A	-1.95	N/A	N/A	1.58	
<b>International Equity Composite</b>	<b>5.22</b>	<b>11.47</b>	<b>29.34</b>	<b>9.55</b>	<b>9.14</b>	<b>6.10</b>	<b>3.07</b>	<b>3.09</b>	<b>-1.39</b>	<b>-1.15</b>	<b>6.86</b>	<b>07/01/2004</b>
MSCI ACW Ex US IM Index (Blended)	5.23	11.82	27.81	8.38	7.22	5.15	2.28	4.41	-4.60	-3.89	7.07	
Difference	-0.01	-0.35	1.53	1.17	1.92	0.95	0.79	-1.32	3.21	2.74	-0.21	
All Public Plans-Intl. Equity Segment Median	4.93	11.27	28.59	9.06	8.40	6.68	3.17	3.97	-2.54	-2.99	7.82	
Rank	34	47	37	38	23	72	53	68	29	21	91	
<b>BlackRock Developed Int'l - Passive (CF)</b>	<b>4.51</b>	<b>10.72</b>	<b>25.71</b>	<b>8.56</b>	<b>8.38</b>	<b>N/A</b>	<b>N/A</b>	<b>3.45</b>	<b>-1.62</b>	<b>-4.13</b>	<b>9.14</b>	<b>10/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	8.74	
Difference	0.05	0.13	0.54	0.45	0.41	N/A	N/A	0.50	0.33	0.32	0.40	
IM All EAFE (SA+CF) Median	4.19	10.28	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	9.88	
Rank	34	39	60	58	66	N/A	N/A	21	75	50	67	
<b>BlackRock Developed Int'l - Passive (CF) - Net</b>	<b>4.51</b>	<b>10.72</b>	<b>25.71</b>	<b>8.55</b>	<b>8.36</b>	<b>N/A</b>	<b>N/A</b>	<b>3.45</b>	<b>-1.64</b>	<b>-4.15</b>	<b>9.12</b>	<b>10/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	8.74	
Difference	0.05	0.13	0.54	0.44	0.39	N/A	N/A	0.50	0.31	0.30	0.38	
<b>MFS Developed Int'l (SA)</b>	<b>6.00</b>	<b>9.47</b>	<b>27.13</b>	<b>10.78</b>	<b>12.61</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.22</b>	<b>7.17</b>	<b>1.31</b>	<b>13.17</b>	<b>08/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	9.67	
Difference	1.54	-1.12	1.96	2.67	4.64	N/A	N/A	-3.17	9.12	5.76	3.50	
IM All EAFE (SA+CF) Median	4.19	10.28	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	10.73	
Rank	9	67	42	17	5	N/A	N/A	69	6	6	8	
<b>MFS Developed Int'l (SA) - Net</b>	<b>5.91</b>	<b>9.28</b>	<b>26.70</b>	<b>10.41</b>	<b>12.24</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.56</b>	<b>6.83</b>	<b>0.99</b>	<b>12.79</b>	<b>08/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	9.67	
Difference	1.45	-1.31	1.53	2.30	4.27	N/A	N/A	-3.51	8.78	5.44	3.12	

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	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Fidelity Developed Int'l (SA)</b>	<b>3.49</b>	<b>9.55</b>	<b>25.16</b>	<b>7.87</b>	<b>8.27</b>	<b>6.59</b>	<b>2.98</b>	<b>-0.70</b>	<b>0.99</b>	<b>-5.94</b>	<b>6.56</b>	<b>12/01/2004</b>
International Developed Blend	4.46	10.59	25.17	8.11	7.97	5.90	2.69	2.95	-1.95	-4.45	5.62	
Difference	-0.97	-1.04	-0.01	-0.24	0.30	0.69	0.29	-3.65	2.94	-1.49	0.94	
IM All EAFE (SA+CF) Median	4.19	10.28	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	6.84	
Rank	76	66	66	76	70	71	64	73	54	80	62	
<b>Fidelity Developed Int'l (SA) - Net</b>	<b>3.41</b>	<b>9.40</b>	<b>24.81</b>	<b>7.57</b>	<b>7.97</b>	<b>6.29</b>	<b>2.65</b>	<b>-0.98</b>	<b>0.73</b>	<b>-6.19</b>	<b>6.20</b>	<b>12/01/2004</b>
International Developed Blend	4.46	10.59	25.17	8.11	7.97	5.90	2.69	2.95	-1.95	-4.45	5.62	
Difference	-1.05	-1.19	-0.36	-0.54	0.00	0.39	-0.04	-3.93	2.68	-1.74	0.58	
<b>LA Capital Emerging (CF)</b>	<b>7.25</b>	<b>15.90</b>	<b>37.13</b>	<b>9.31</b>	<b>5.18</b>	<b>N/A</b>	<b>N/A</b>	<b>12.18</b>	<b>-15.10</b>	<b>0.24</b>	<b>6.20</b>	<b>10/01/2012</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	5.32	
Difference	-0.42	0.05	0.30	0.30	0.71	N/A	N/A	2.28	-1.24	2.03	0.88	
IM Emerging Markets Equity (SA+CF) Median	6.99	14.85	37.14	9.84	5.87	4.34	3.12	9.96	-12.66	-0.16	6.69	
Rank	45	38	51	57	66	N/A	N/A	35	72	46	64	
<b>LA Capital Emerging (CF) - Net</b>	<b>7.08</b>	<b>15.52</b>	<b>36.24</b>	<b>8.60</b>	<b>4.51</b>	<b>N/A</b>	<b>N/A</b>	<b>11.46</b>	<b>-15.65</b>	<b>-0.36</b>	<b>5.52</b>	<b>10/01/2012</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	5.32	
Difference	-0.59	-0.33	-0.59	-0.41	0.04	N/A	N/A	1.56	-1.79	1.43	0.20	
<b>Wellington Emerging (SA)</b>	<b>6.23</b>	<b>15.80</b>	<b>41.01</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>27.19</b>	<b>10/01/2016</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	23.92	
Difference	-1.44	-0.05	4.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.27	
IM Emerging Markets Equity (SA+CF) Median	6.99	14.85	37.14	9.84	5.87	4.34	3.12	9.96	-12.66	-0.16	24.08	
Rank	68	40	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27	
<b>Wellington Emerging (SA) - Net</b>	<b>6.08</b>	<b>15.47</b>	<b>40.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>26.47</b>	<b>10/01/2016</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	23.92	
Difference	-1.59	-0.38	3.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.55	

Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.

**Water and Power Employees' Retirement Plan  
Comparative Performance - Retirement**

**As of December 31, 2017**

	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Fixed Income Composite</b>	<b>0.45</b>	<b>1.80</b>	<b>4.88</b>	<b>3.53</b>	<b>3.17</b>	<b>4.45</b>	<b>5.11</b>	<b>5.00</b>	<b>0.78</b>	<b>6.05</b>	<b>5.42</b>	<b>04/01/2001</b>
Fixed Income Custom Index (R)	0.40	1.55	4.12	3.26	2.78	3.82	4.47	5.65	0.11	5.56	5.03	
Difference	0.05	0.25	0.76	0.27	0.39	0.63	0.64	-0.65	0.67	0.49	0.39	
All Public Plans-US Fixed Income Segment Median	0.62	1.65	4.54	2.92	2.60	4.01	4.68	4.52	0.30	6.01	5.02	
Rank	64	43	42	39	37	37	26	41	31	49	18	
<b>JP Morgan Principal Protection (SA)</b>	<b>-0.14</b>	<b>0.42</b>	<b>1.86</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.02</b>	<b>N/A</b>	<b>N/A</b>	<b>1.72</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.01	-0.08	0.06	N/A	N/A	N/A	N/A	0.62	N/A	N/A	0.28	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.51	1.45	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	3.18	
Rank	99	99	100	N/A	N/A	N/A	N/A	97	N/A	N/A	100	
<b>JP Morgan Principal Protection (SA) - Net</b>	<b>-0.17</b>	<b>0.37</b>	<b>1.76</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.92</b>	<b>N/A</b>	<b>N/A</b>	<b>1.62</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.04	-0.13	-0.04	N/A	N/A	N/A	N/A	0.52	N/A	N/A	0.18	
<b>Wells Principal Protection (SA)</b>	<b>-0.19</b>	<b>0.54</b>	<b>1.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.86</b>	<b>N/A</b>	<b>N/A</b>	<b>1.68</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.06	0.04	0.14	N/A	N/A	N/A	N/A	0.46	N/A	N/A	0.24	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.51	1.45	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	3.18	
Rank	99	99	100	N/A	N/A	N/A	N/A	98	N/A	N/A	100	
<b>Wells Principal Protection (SA) - Net</b>	<b>-0.21</b>	<b>0.48</b>	<b>1.83</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.73</b>	<b>N/A</b>	<b>N/A</b>	<b>1.56</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.08	-0.02	0.03	N/A	N/A	N/A	N/A	0.33	N/A	N/A	0.12	
<b>Macquarie Unconstrained (SA)</b>	<b>0.88</b>	<b>2.80</b>	<b>7.86</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.37</b>	<b>N/A</b>	<b>N/A</b>	<b>6.13</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	-0.03	0.15	1.13	N/A	N/A	N/A	N/A	-1.67	N/A	N/A	-0.56	
IM Global Fixed Income (SA+CF) Median	0.87	2.72	7.63	3.47	3.06	4.04	4.77	5.75	-2.31	2.48	5.19	
Rank	50	47	46	N/A	N/A	N/A	N/A	34	N/A	N/A	34	
<b>Macquarie Unconstrained (SA) - Net</b>	<b>0.83</b>	<b>2.71</b>	<b>7.67</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.19</b>	<b>N/A</b>	<b>N/A</b>	<b>5.95</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	-0.08	0.06	0.94	N/A	N/A	N/A	N/A	-1.85	N/A	N/A	-0.74	

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**Water and Power Employees' Retirement Plan**  
**Comparative Performance - Retirement**

**As of December 31, 2017**

	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Neuberger Unconstrained (SA)</b>	<b>1.34</b>	<b>3.78</b>	<b>9.26</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.65</b>	<b>N/A</b>	<b>N/A</b>	<b>7.89</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	0.43	1.13	2.53	N/A	N/A	N/A	N/A	-0.39	N/A	N/A	1.20	
IM Global Fixed Income (SA+CF) Median	0.87	2.72	7.63	3.47	3.06	4.04	4.77	5.75	-2.31	2.48	5.19	
Rank	23	22	27	N/A	N/A	N/A	N/A	30	N/A	N/A	18	
<b>Neuberger Unconstrained (SA) - Net</b>	<b>1.28</b>	<b>3.66</b>	<b>9.01</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.40</b>	<b>N/A</b>	<b>N/A</b>	<b>7.64</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	0.37	1.01	2.28	N/A	N/A	N/A	N/A	-0.64	N/A	N/A	0.95	
<b>Pacific Asset Bank Loans (SA)</b>	<b>1.04</b>	<b>2.57</b>	<b>5.48</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.18</b>	<b>N/A</b>	<b>N/A</b>	<b>5.93</b>	<b>09/01/2015</b>
CS Lvg'd Loan Index	1.17	2.24	4.25	4.50	4.33	4.68	4.57	9.88	-0.38	2.06	4.79	
Difference	-0.13	0.33	1.23	N/A	N/A	N/A	N/A	-0.70	N/A	N/A	1.14	
IM U.S. Bank Loans (SA+CF) Median	1.24	2.44	4.46	4.78	4.52	5.04	5.16	9.51	0.76	2.06	4.91	
Rank	89	41	9	N/A	N/A	N/A	N/A	58	N/A	N/A	10	
<b>Pacific Asset Bank Loans (SA) - Net</b>	<b>0.96</b>	<b>2.41</b>	<b>5.14</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.83</b>	<b>N/A</b>	<b>N/A</b>	<b>5.59</b>	<b>09/01/2015</b>
CS Lvg'd Loan Index	1.17	2.24	4.25	4.50	4.33	4.68	4.57	9.88	-0.38	2.06	4.79	
Difference	-0.21	0.17	0.89	N/A	N/A	N/A	N/A	-1.05	N/A	N/A	0.80	
<b>Real Return Composite</b>	<b>3.50</b>	<b>5.11</b>	<b>4.05</b>	<b>3.67</b>	<b>1.61</b>	<b>3.34</b>	<b>2.17</b>	<b>9.90</b>	<b>-2.56</b>	<b>2.21</b>	<b>2.85</b>	<b>02/01/2007</b>
CPI+3% (Blended)	1.36	3.10	5.17	4.66	4.34	3.99	3.94	5.15	3.68	3.68	4.28	
Difference	2.14	2.01	-1.12	-0.99	-2.73	-0.65	-1.77	4.75	-6.24	-1.47	-1.43	
<b>Invesco Commodity (CF)</b>	<b>7.87</b>	<b>13.22</b>	<b>6.09</b>	<b>0.81</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>14.61</b>	<b>-15.75</b>	<b>-15.29</b>	<b>-4.17</b>	<b>08/01/2013</b>
Bloomberg Cmdty Index (TR)	4.71	7.35	1.70	-5.04	-8.45	-8.15	-6.83	11.77	-24.66	-17.01	-7.50	
Difference	3.16	5.87	4.39	5.85	N/A	N/A	N/A	2.84	8.91	1.72	3.33	
<b>Invesco Commodity (CF) - Net</b>	<b>7.69</b>	<b>12.84</b>	<b>5.40</b>	<b>0.14</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>13.87</b>	<b>-16.32</b>	<b>-15.82</b>	<b>-4.76</b>	<b>08/01/2013</b>
Bloomberg Cmdty Index (TR)	4.71	7.35	1.70	-5.04	-8.45	-8.15	-6.83	11.77	-24.66	-17.01	-7.50	
Difference	2.98	5.49	3.70	5.18	N/A	N/A	N/A	2.10	8.34	1.19	2.74	
<b>Hancock Timberland (CF) (Lagged-1 Qtr) - Net</b>	<b>-0.40</b>	<b>-1.10</b>	<b>4.65</b>	<b>3.01</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>4.81</b>	<b>-0.34</b>	<b>N/A</b>	<b>1.89</b>	<b>04/01/2014</b>
NCREIF Timberland Index (Lagged-1 Qtr)	0.60	1.30	3.28	5.24	7.13	5.41	5.21	3.28	9.26	10.38	5.32	
Difference	-1.00	-2.40	1.37	-2.23	N/A	N/A	N/A	1.53	-9.60	N/A	-3.43	
<b>Molpus IV (CF) (Lagged-1 Qtr) - Net</b>	<b>0.23</b>	<b>0.39</b>	<b>4.52</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.91</b>	<b>N/A</b>	<b>N/A</b>	<b>-5.96</b>	<b>09/01/2015</b>
NCREIF Timberland Index (Lagged-1 Qtr)	0.60	1.30	3.28	5.24	7.13	5.41	5.21	3.28	9.26	10.38	3.37	
Difference	-0.37	-0.91	1.24	N/A	N/A	N/A	N/A	-5.19	N/A	N/A	-9.33	

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**Water and Power Employees' Retirement Plan  
Comparative Performance - Retirement**

**As of December 31, 2017**

	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>WAMCO (SA)</b>	<b>2.29</b>	<b>2.86</b>	<b>3.33</b>	<b>4.09</b>	<b>2.96</b>	<b>4.43</b>	<b>N/A</b>	<b>9.37</b>	<b>-0.22</b>	<b>8.75</b>	<b>4.31</b>	<b>04/01/2010</b>
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	2.51	3.09	3.38	4.06	3.03	4.51	4.61	10.22	-1.12	9.04	4.60	
Difference	-0.22	-0.23	-0.05	0.03	-0.07	-0.08	N/A	-0.85	0.90	-0.29	-0.29	
<b>WAMCO (SA) - Net</b>	<b>2.24</b>	<b>2.77</b>	<b>3.15</b>	<b>3.90</b>	<b>2.79</b>	<b>4.25</b>	<b>N/A</b>	<b>9.18</b>	<b>-0.39</b>	<b>8.60</b>	<b>4.12</b>	<b>04/01/2010</b>
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	2.51	3.09	3.38	4.06	3.03	4.51	4.61	10.22	-1.12	9.04	4.60	
Difference	-0.27	-0.32	-0.23	-0.16	-0.24	-0.26	N/A	-1.04	0.73	-0.44	-0.48	
<b>Hedge Funds Composite - Net</b>	<b>1.12</b>	<b>1.41</b>	<b>3.92</b>	<b>0.92</b>	<b>2.94</b>	<b>2.91</b>	<b>2.06</b>	<b>-2.30</b>	<b>1.24</b>	<b>3.03</b>	<b>2.77</b>	<b>03/01/2007</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.79	
Difference	0.12	-0.61	0.11	-2.47	-0.32	-0.30	-1.36	-5.63	-1.78	-0.02	-1.02	
<b>Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net</b>	<b>0.98</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.98</b>	<b>09/01/2017</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	1.35	
Difference	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.37	
<b>GAM Divergent (CF) (Lagged-1 Mo) - Net</b>	<b>-0.14</b>	<b>0.29</b>	<b>1.21</b>	<b>0.52</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.23</b>	<b>3.70</b>	<b>4.82</b>	<b>1.55</b>	<b>12/01/2013</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.30	
Difference	-1.14	-1.73	-2.60	-2.87	N/A	N/A	N/A	-6.56	0.68	1.77	-1.75	
<b>MS Convergent (CF) (Lagged-1 Mo) - Net</b>	<b>2.76</b>	<b>3.09</b>	<b>7.39</b>	<b>1.51</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.27</b>	<b>-1.34</b>	<b>N/A</b>	<b>1.36</b>	<b>03/01/2014</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.31	
Difference	1.76	1.07	3.58	-1.88	N/A	N/A	N/A	-4.60	-4.36	N/A	-1.95	

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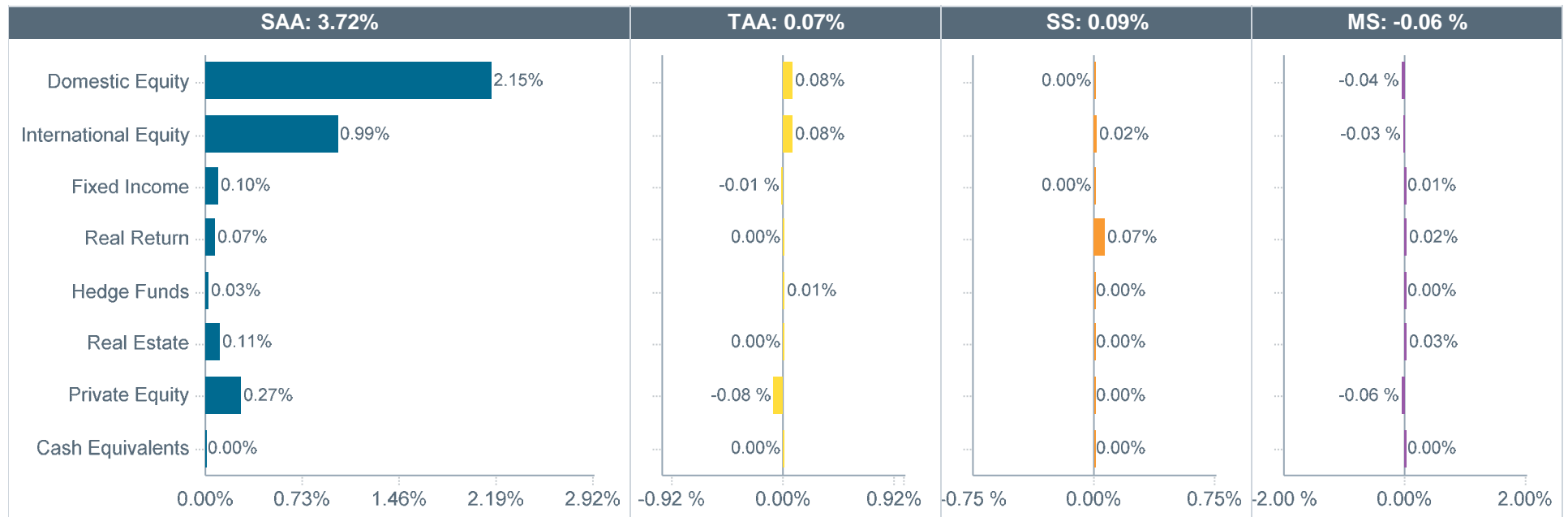
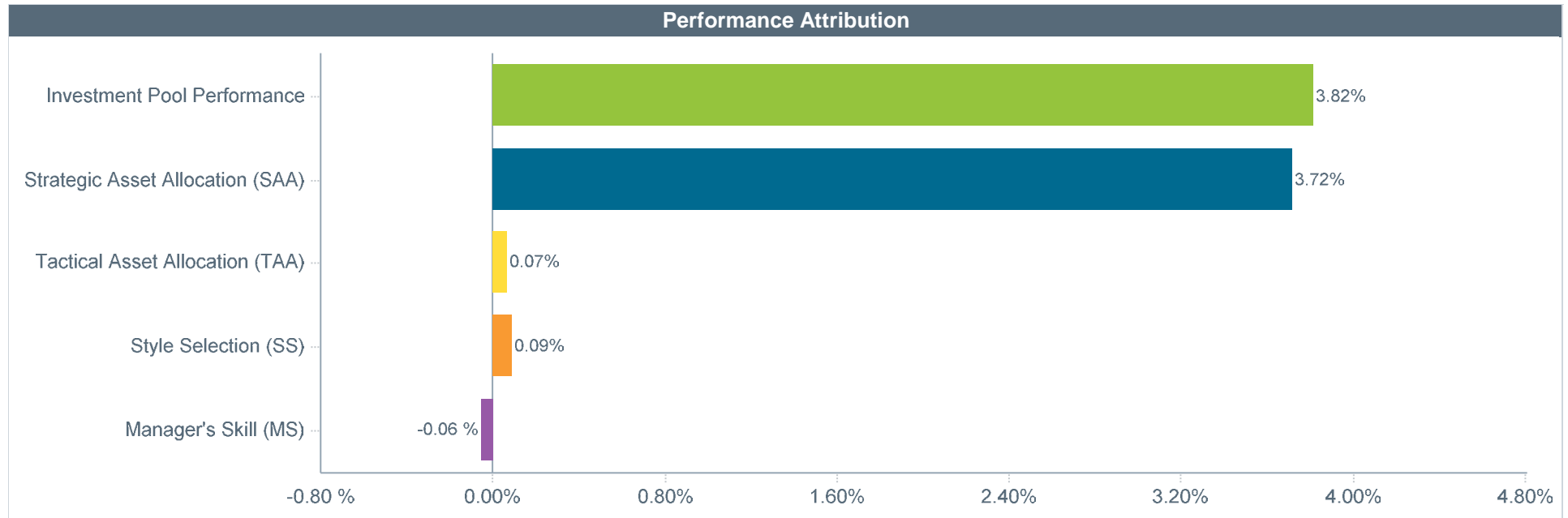
**Water and Power Employees' Retirement Plan**  
**Alternative Investment Fund Performance Listing - Retirement**

**As of September 30, 2017**

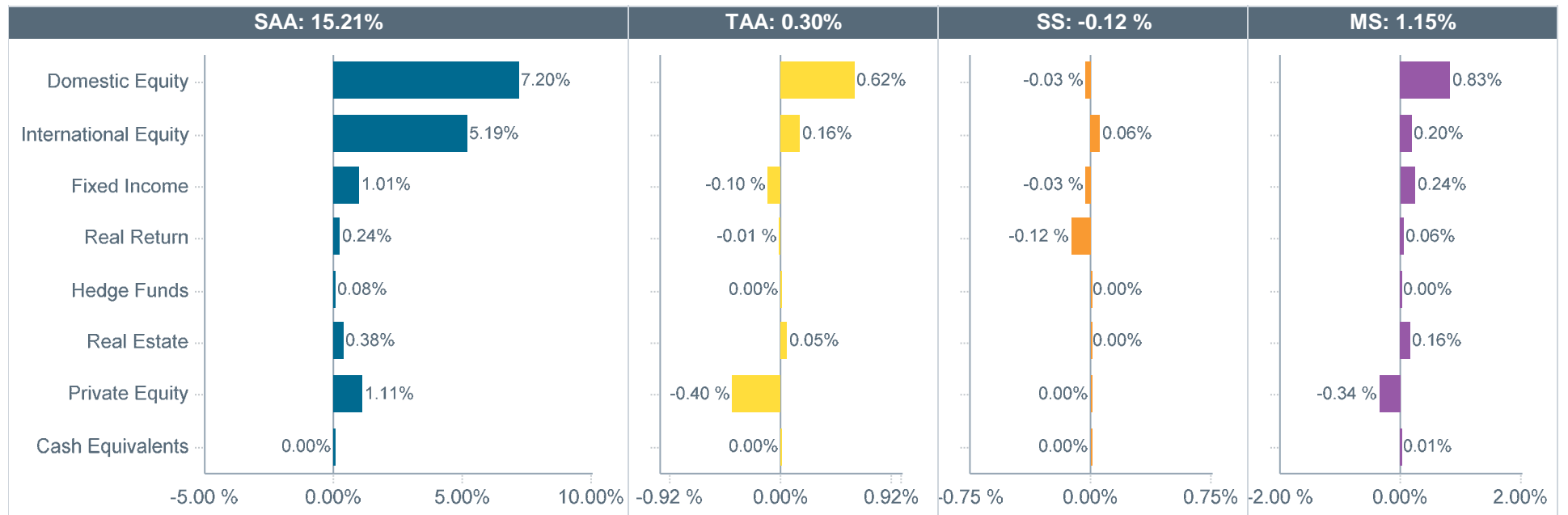
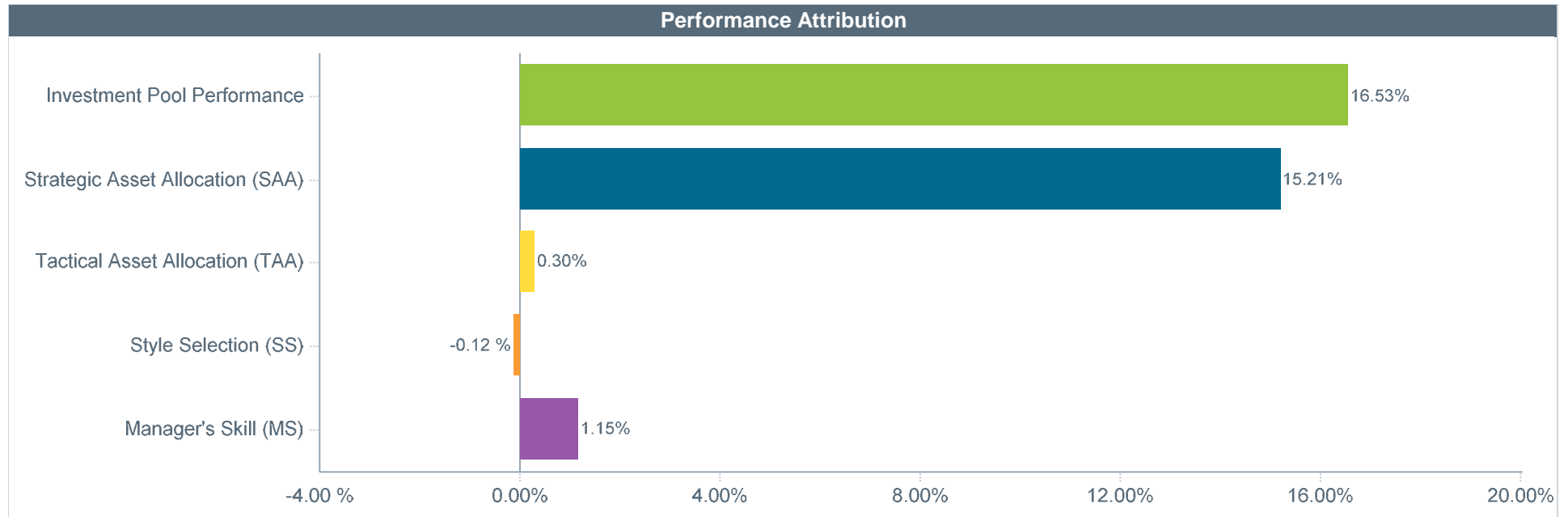
	Market Value	% of Alt. Inv. Group	% of Total Fund	Inception IRR	Inception Date
<b>Private Equity</b>	<b>\$ 396,304,429</b>	<b>36.87%</b>	<b>3.40%</b>	<b>11.93%</b>	<b>May-06</b>
Adams Street SMB I	\$ 8,510,627	0.79%	0.07%	-3.75%	Jan-17
Apollo VIII	\$ 24,361,672	2.27%	0.21%	21.36%	Jan-14
Ares IV	\$ 19,652,254	1.83%	0.17%	18.87%	Nov-12
ARES Special Situation IV	\$ 15,080,154	1.40%	0.13%	-16.41%	Jan-15
Ares V	\$ 5,353,268	0.50%	0.05%	0.14%	Jan-15
Audax III V	\$ 8,314,879	0.77%	0.07%	13.13%	Jan-11
Blackstone Tactical Opps II	\$ 28,110,520	2.62%	0.24%	19.81%	Apr-15
Clayton, Dubilier & Rice IX	\$ 16,873,000	1.57%	0.14%	21.22%	Apr-14
Crestview Partners III	\$ 18,586,911	1.73%	0.16%	21.79%	Feb-15
EnCap IX	\$ 11,983,458	1.12%	0.10%	19.57%	Jan-11
EnCap VIII	\$ 5,533,714	0.51%	0.05%	-1.10%	Jan-13
EnCap X	\$ 19,545,956	1.82%	0.17%	27.65%	Feb-15
Fisher Lynch II	\$ 17,322,818	1.61%	0.15%	11.27%	Mar-08
Harvest VII	\$ 8,237,328	0.77%	0.07%	13.09%	Nov-15
HRJ Special Opp II	\$ 7,042,141	0.66%	0.06%	8.08%	Feb-08
Industry Ventures VIII	\$ 2,729,950	0.25%	0.02%	54.42%	May-16
Landmark XIII	\$ 8,039,029	0.75%	0.07%	6.83%	Oct-06
Landmark XIV	\$ 11,449,887	1.07%	0.10%	13.44%	Aug-08
Landmark XV	\$ 14,902,981	1.39%	0.13%	15.67%	Feb-14
Lexington VI	\$ 5,792,857	0.54%	0.05%	8.20%	May-06
Lexington VII	\$ 11,132,118	1.04%	0.10%	17.59%	Aug-09
Oaktree PF V	\$ 7,744,642	0.72%	0.07%	5.60%	Jan-09
Silver Lake IV	\$ 17,098,832	1.59%	0.15%	35.09%	Sep-13
Vista IV	\$ 20,613,761	1.92%	0.18%	21.43%	Sep-11
Vista V	\$ 48,713,689	4.53%	0.42%	16.42%	Apr-14
Vista VI	\$ 33,577,983	3.12%	0.29%	8.14%	Jun-16
<b>Real Estate</b>	<b>\$ 678,421,015</b>	<b>63.13%</b>	<b>5.83%</b>	<b>8.91%</b>	<b>Nov-06</b>
AG Core Plus III	\$ 6,375,441	0.59%	0.05%	25.22%	Jan-12
Almanac VI	\$ 7,300,237	0.68%	0.06%	18.55%	Jun-12
Almanac VII	\$ 9,984,418	0.93%	0.09%	15.75%	Mar-15
BREP Europe IV	\$ 20,436,463	1.90%	0.18%	18.02%	Dec-13
BREP VII	\$ 17,449,386	1.62%	0.15%	20.58%	Jun-12
Bristol Value II	\$ 11,319,498	1.05%	0.10%	11.51%	Nov-12
Dimensional Global REIT	\$ 23,991,954	2.23%	0.21%	7.10%	Mar-13
DRA G&I IX	\$ 13,595,520	1.27%	0.12%	13.18%	Sep-16
DRA G&I VIII	\$ 17,540,529	1.63%	0.15%	21.25%	Jun-14
DRA VII	\$ 8,576,589	0.80%	0.07%	13.82%	Oct-11
FPA Core Plus III	\$ 29,022,637	2.70%	0.25%	1.43%	Jan-17
Harrison Street Core	\$ 56,671,217	5.27%	0.49%	9.96%	Aug-15
Heitman REIT	\$ 23,047,082	2.14%	0.20%	9.22%	Sep-13
Invesco Core Realty	\$ 53,923,471	5.02%	0.46%	10.80%	Jun-11
Jamestown Premier	\$ 49,493,656	4.61%	0.43%	6.97%	Mar-15
JPM Strategic	\$ 79,409,595	7.39%	0.68%	5.63%	Sep-07
Lone Star RE II	\$ 1,330,369	0.12%	0.01%	28.87%	May-11
Lone Star RE IV	\$ 27,153,450	2.53%	0.23%	18.74%	Jun-15
Lone Star V	\$ 6,451,099	0.60%	0.06%	-27.58%	Aug-17
Lone Star VII	\$ 297,684	0.03%	0.00%	49.84%	May-11
Mesa West III	\$ 9,212,442	0.86%	0.08%	10.18%	Aug-13
Mesa West IV	\$ 10,292,101	0.96%	0.09%	2.32%	Feb-16
PCCP First Mtg II	\$ 1,553,390	0.14%	0.01%	7.19%	Jun-12
PRISA I	\$ 84,037,665	7.82%	0.72%	5.29%	Nov-06
PRISA II	\$ 38,245,665	3.56%	0.33%	6.77%	May-07
Prologis USLH	\$ 27,505,855	2.56%	0.24%	16.89%	Mar-15
Torchlight IV	\$ 16,603,689	1.54%	0.14%	12.29%	Aug-13
Torchlight V	\$ 15,211,901	1.42%	0.13%	12.85%	Mar-15
Westbrook X	\$ 12,388,011	1.15%	0.11%	23.15%	Feb-16

Market values and performance were provided by Northern Trust.





Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

**Water and Power Employees' Retirement Plan**  
**Growth of \$100 - Retirement**

Since Inception Ending December 31, 2017

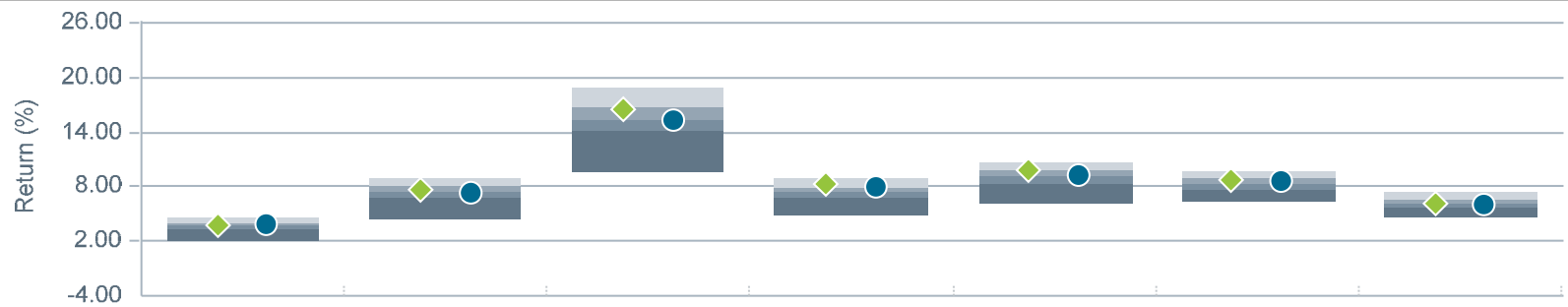


Performance shown is gross of fees. Calculation is based on monthly periodicity.

Water and Power Employees' Retirement Plan  
Plan Sponsor Peer Group Analysis - Retirement  
All Public Plans-Total Fund

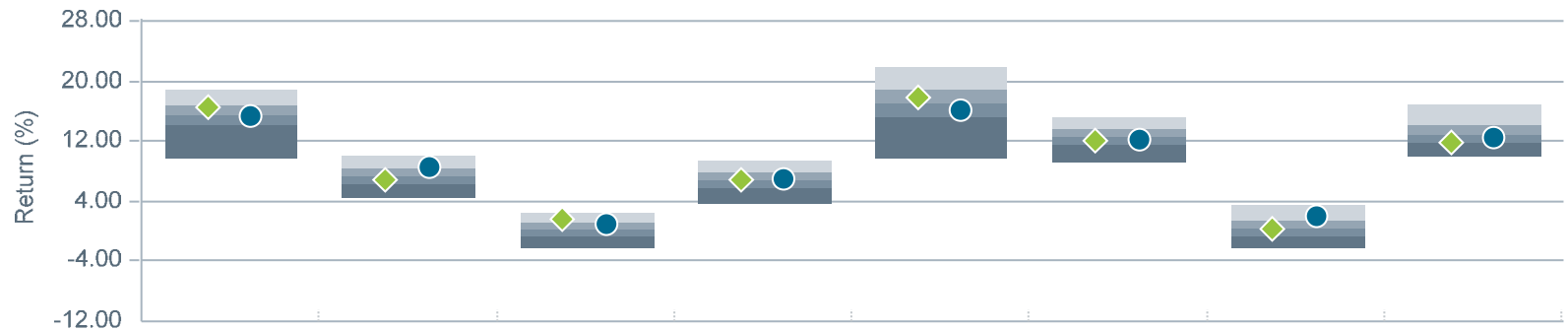
As of December 31, 2017

Trailing Years



	QTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years
◆ Total Fund Composite (Retirement)	3.82 (43)	7.55 (42)	16.53 (29)	8.21 (18)	9.77 (28)	8.68 (33)	6.14 (53)
● Retirement Policy Benchmark	3.72 (51)	7.32 (51)	15.21 (59)	7.94 (27)	9.27 (46)	8.55 (40)	6.01 (62)
Median	3.73	7.35	15.48	7.45	9.16	8.28	6.17
Population	456	456	448	424	407	387	340

Calendar Years



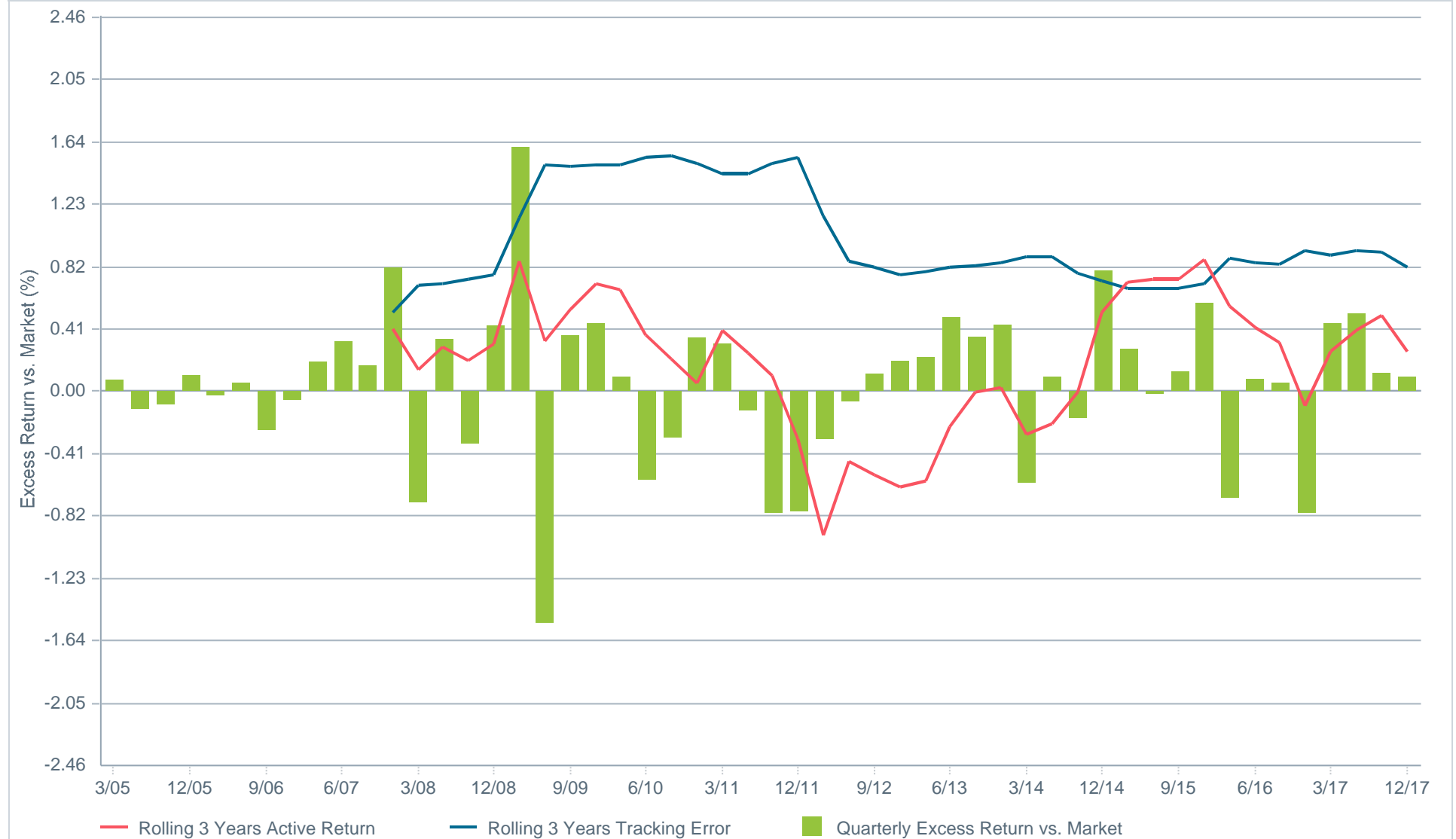
	CYTD	2016	2015	2014	2013	2012	2011	2010
◆ Total Fund Composite (Retirement)	16.53 (29)	6.94 (60)	1.68 (13)	6.86 (49)	17.72 (43)	12.01 (64)	0.28 (52)	11.78 (75)
● Retirement Policy Benchmark	15.21 (59)	8.40 (25)	0.71 (34)	6.75 (53)	16.01 (65)	12.06 (64)	1.73 (20)	12.30 (66)
Median	15.48	7.32	0.19	6.81	17.08	12.64	0.32	12.79
Population	448	579	548	511	505	497	479	467

Performance shown is gross of fees. Parenthesis contain percentile ranks.

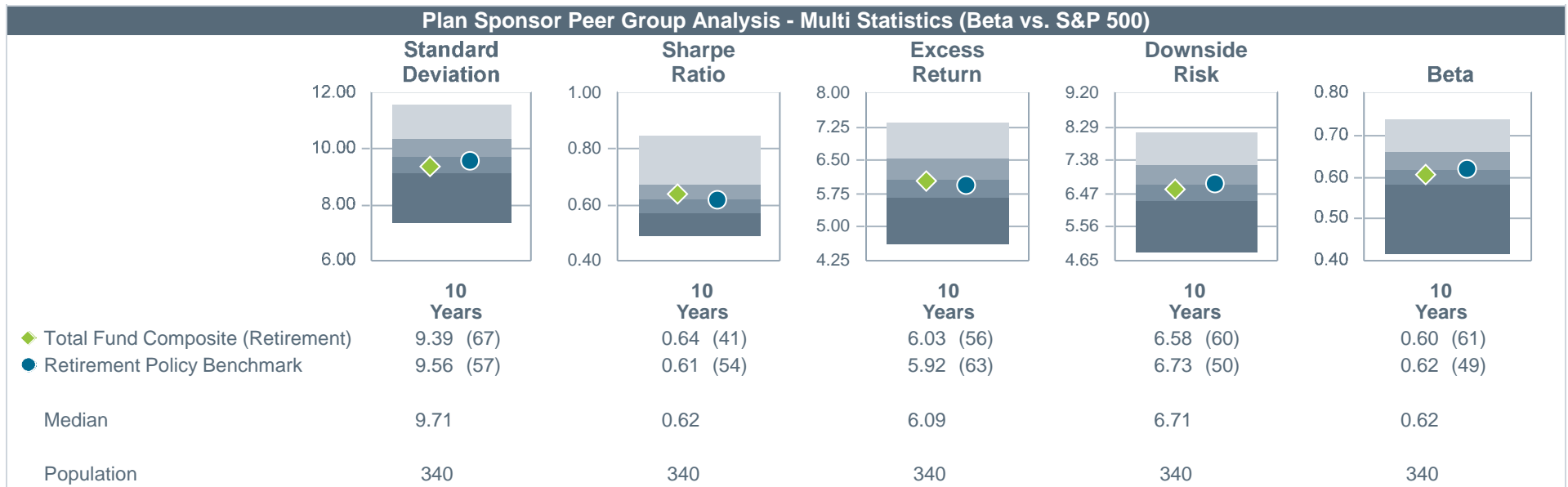
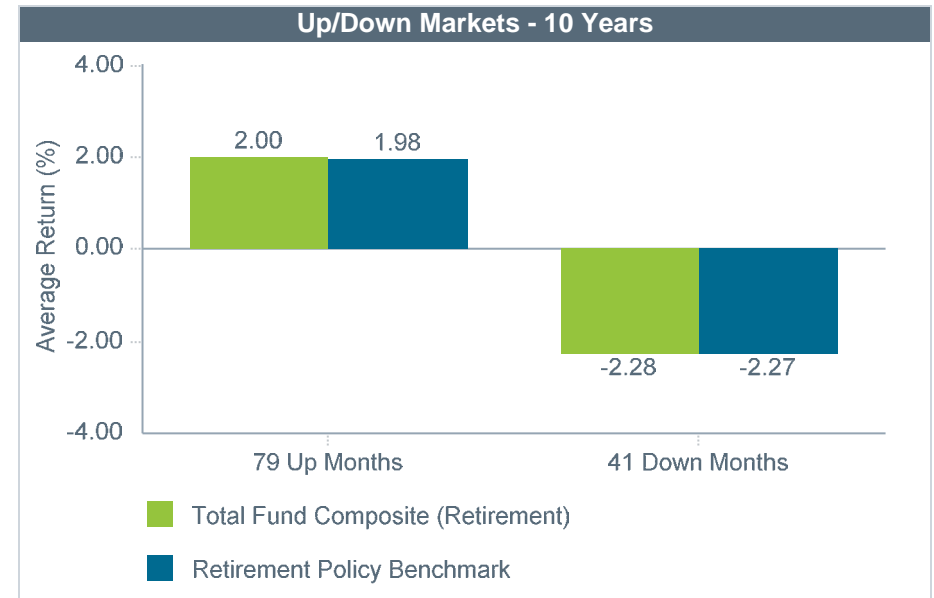
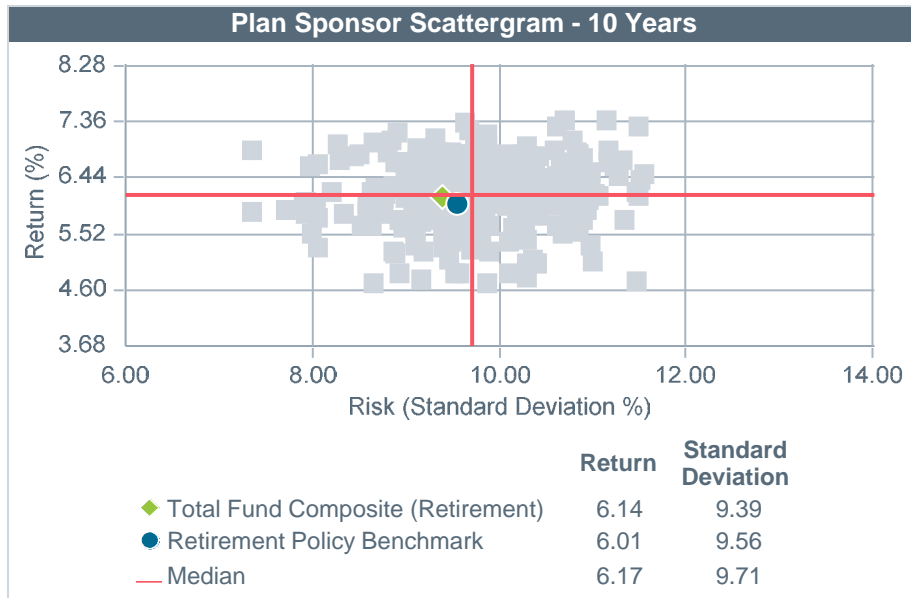
**Water and Power Employees' Retirement Plan**  
**Total Fund Composite (Retirement) vs. Retirement Policy Benchmark**  
**Comparative Performance & Rolling Return - Retirement**

As of December 31, 2017

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
<b>Total Fund Composite (Retirement)</b>	<b>3.82</b>	<b>7.55</b>	<b>16.53</b>	<b>16.53</b>	<b>8.21</b>	<b>9.77</b>	<b>8.68</b>	<b>6.14</b>	<b>6.94</b>	<b>1.68</b>	<b>6.86</b>	<b>17.72</b>	<b>12.01</b>
Retirement Policy Benchmark	3.72	7.32	15.21	15.21	7.94	9.27	8.55	6.01	8.40	0.71	6.75	16.01	12.06
Difference	0.10	0.23	1.32	1.32	0.27	0.50	0.13	0.13	-1.46	0.97	0.11	1.71	-0.05

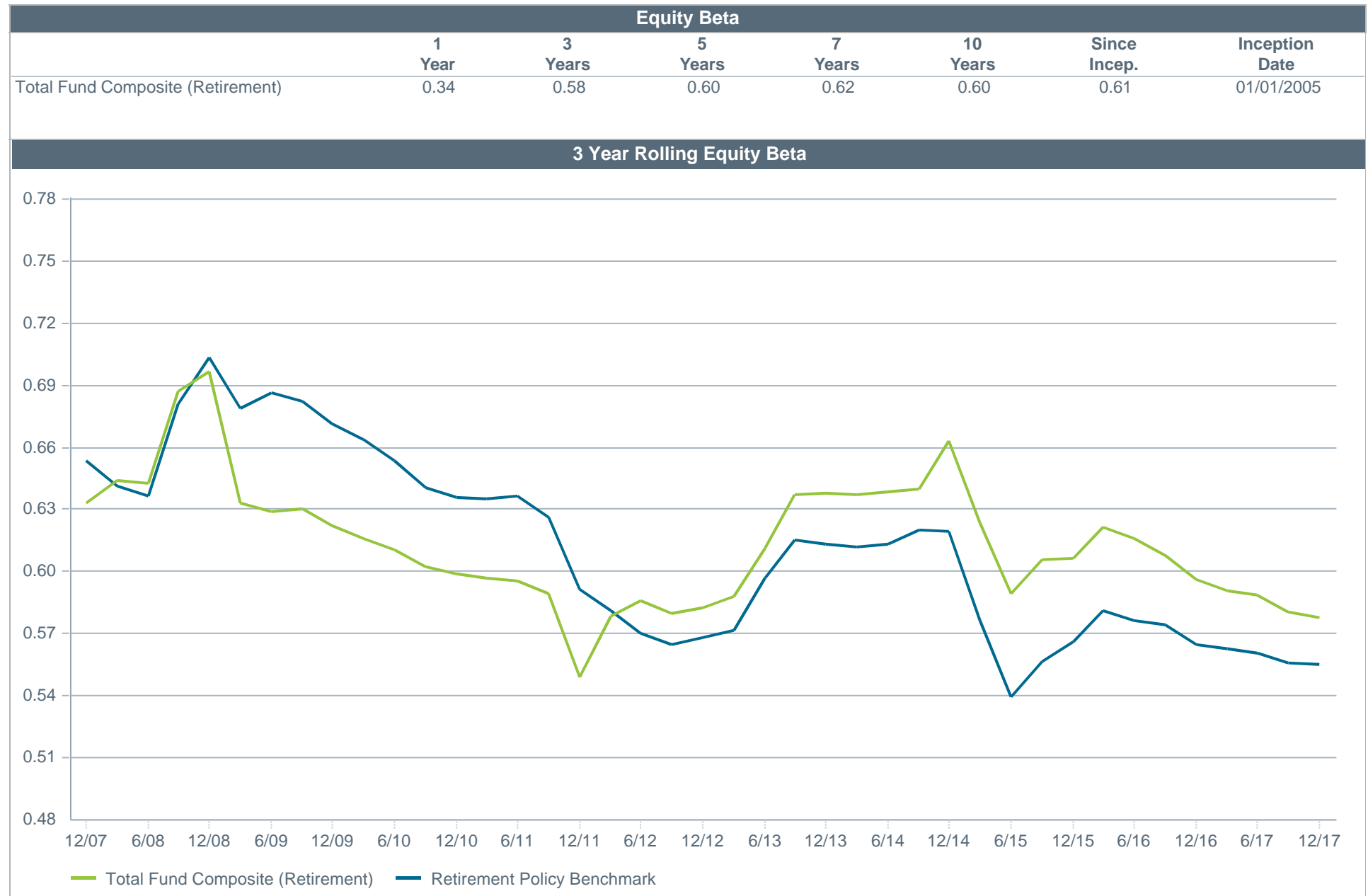


Performance shown is gross of fees. Calculation is based on quarterly periodicity. Fiscal year ends 06/30.



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.





Performance shown is gross of fees. The objective of the Total Fund Beta is to measure the aggregate level of non-diversifiable or systematic equity risk exposure of the Water and Power Employees' Retirement Plan - Retirement. The Total Fund Beta is calculated using the S&P 500 Index (Cap Wtd) as the benchmark and is based on monthly periodicity. It represents a measure of the sensitivity of the Total Fund to movements of the S&P 500 Index (Cap Wtd) over the preceding three year period.

# Total Fund - Health

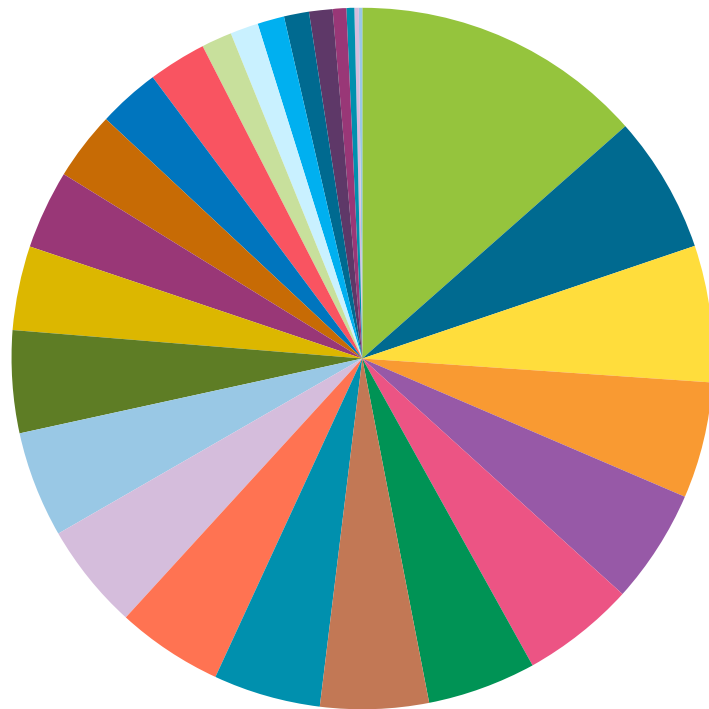


Water and Power Employees' Retirement Plan  
Asset Allocation by Manager and Schedule of Investable Assets - Health

As of December 31, 2017

Asset Allocation by Manager

December 31, 2017 : \$2,060,824,908



Market Value (\$)	Allocation (%)
277,845,346	13.48
130,269,109	6.32
129,621,570	6.29
110,330,041	5.35
108,573,093	5.27
107,884,580	5.24
103,013,319	5.00
103,006,502	5.00
101,543,732	4.93
101,176,165	4.91
101,050,001	4.90
100,630,885	4.88
97,321,955	4.72
79,971,879	3.88
74,812,321	3.63
64,933,735	3.15
58,567,620	2.84
55,049,568	2.67
29,022,402	1.41
26,780,019	1.30
25,294,447	1.23
23,971,839	1.16
22,236,421	1.08
12,736,214	0.62
7,633,977	0.37
4,202,905	0.20
3,345,261	0.16
2	0.00

Schedule of Investable Assets - FYTD

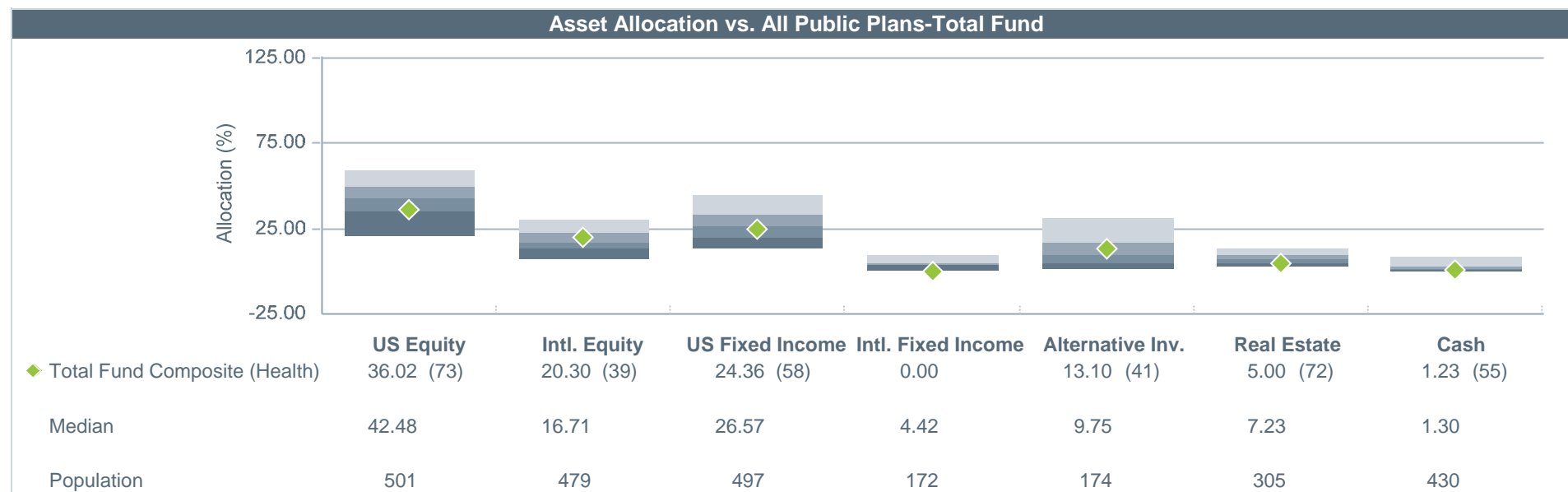
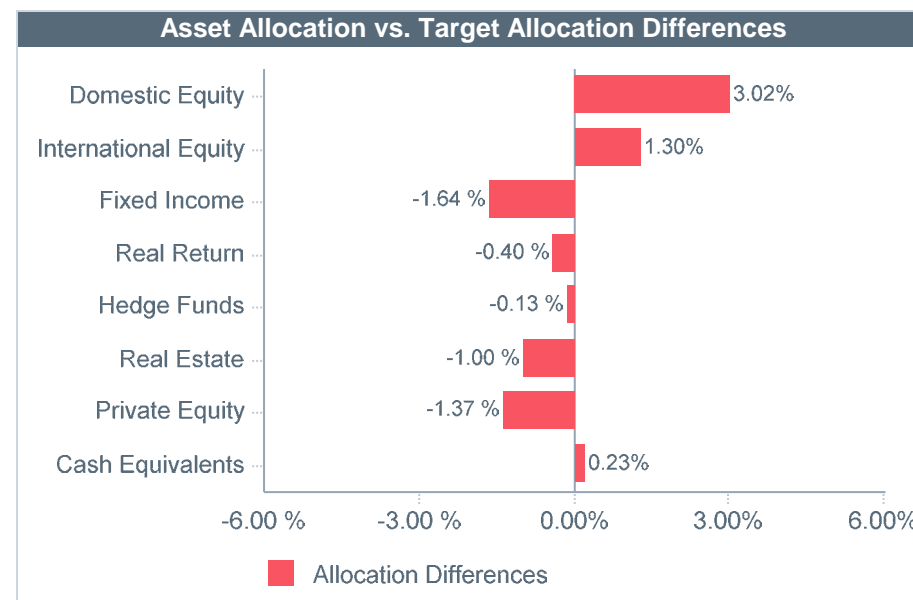
Periods Ending	Beginning Market Value (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
FYTD	1,916,571,489	144,253,418	2,060,824,908	7.66	107.66

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees. Fiscal year ends 06/30.

**Water and Power Employees' Retirement Plan**  
**Total Fund Composite (Health) vs. All Public Plans-Total Fund**  
**Asset Allocation vs. Target and Plan Sponsor Peer Group - Health**

As of December 31, 2017

Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Domestic Equity	742,262,712	36.02	33.00
International Equity	418,311,395	20.30	19.00
Fixed Income	502,077,139	24.36	26.00
Real Return	94,718,322	4.60	5.00
Hedge Funds	100,342,070	4.87	5.00
Real Estate	103,006,502	5.00	6.00
Private Equity	74,812,321	3.63	5.00
Cash Equivalents	25,294,447	1.23	1.00
Total Fund	2,060,824,908	100.00	100.00



Parentheses contain percentile ranks. Allocations shown may not sum up to 100% exactly due to rounding.

**Water and Power Employees' Retirement Plan  
Comparative Performance - Health**

**As of December 31, 2017**

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Total Fund Composite (Health)</b>	<b>3.89</b>	<b>7.66</b>	<b>16.75</b>	<b>16.75</b>	<b>8.19</b>	<b>9.74</b>	<b>8.77</b>	<b>6.74</b>	<b>6.93</b>	<b>1.46</b>	<b>6.74</b>	<b>6.68</b>	<b>01/01/2007</b>
Health Policy Benchmark	3.72	7.32	15.21	15.21	7.94	9.26	8.48	6.20	8.40	0.71	6.75	6.17	
Difference	0.17	0.34	1.54	1.54	0.25	0.48	0.29	0.54	-1.47	0.75	-0.01	0.51	
All Public Plans-Total Fund Median	3.73	7.35	15.48	15.48	7.45	9.16	8.28	6.17	7.32	0.19	6.81	6.29	
Rank	38	38	23	23	19	29	31	20	61	16	53	29	
<b>Domestic Equity Composite</b>	<b>6.27</b>	<b>11.38</b>	<b>23.37</b>	<b>23.37</b>	<b>12.00</b>	<b>16.56</b>	<b>14.06</b>	<b>8.88</b>	<b>11.67</b>	<b>1.99</b>	<b>11.88</b>	<b>8.63</b>	<b>01/01/2007</b>
Russell 3000 (Blended) (H)	6.34	11.20	21.13	21.13	11.12	15.58	13.50	8.54	12.74	0.48	12.56	8.29	
Difference	-0.07	0.18	2.24	2.24	0.88	0.98	0.56	0.34	-1.07	1.51	-0.68	0.34	
All Public Plans-US Equity Segment Median	6.01	10.92	20.32	20.32	10.86	15.20	13.04	8.43	12.87	0.14	11.41	8.33	
Rank	35	27	8	8	5	3	6	24	76	8	33	29	
<b>MFS Large Cap Value (SA)</b>	<b>5.19</b>	<b>8.21</b>	<b>17.80</b>	<b>17.80</b>	<b>10.87</b>	<b>15.77</b>	<b>13.60</b>	<b>N/A</b>	<b>15.76</b>	<b>-0.06</b>	<b>11.87</b>	<b>13.67</b>	<b>10/01/2009</b>
Russell 1000 Val Index	5.33	8.61	13.66	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	12.99	
Difference	-0.14	-0.40	4.14	4.14	2.22	1.73	1.14	N/A	-1.58	3.77	-1.58	0.68	
IM U.S. Large Cap Value Equity (SA+CF) Median	6.29	10.80	17.24	17.24	9.80	14.83	13.01	8.18	14.58	-2.28	12.22	13.63	
Rank	78	82	45	45	26	30	34	N/A	39	28	56	48	
<b>MFS Large Cap Value (SA) - Net</b>	<b>5.11</b>	<b>8.04</b>	<b>17.45</b>	<b>17.45</b>	<b>10.53</b>	<b>15.43</b>	<b>13.26</b>	<b>N/A</b>	<b>15.41</b>	<b>-0.38</b>	<b>11.56</b>	<b>13.32</b>	<b>10/01/2009</b>
Russell 1000 Val Index	5.33	8.61	13.66	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	12.99	
Difference	-0.22	-0.57	3.79	3.79	1.88	1.39	0.80	N/A	-1.93	3.45	-1.89	0.33	
<b>T. Rowe Price Large Cap Value (SA)</b>	<b>5.40</b>	<b>9.59</b>	<b>16.73</b>	<b>16.73</b>	<b>10.33</b>	<b>15.60</b>	<b>13.67</b>	<b>N/A</b>	<b>17.11</b>	<b>-1.77</b>	<b>13.51</b>	<b>14.08</b>	<b>10/01/2009</b>
Russell 1000 Val Index	5.33	8.61	13.66	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	12.99	
Difference	0.07	0.98	3.07	3.07	1.68	1.56	1.21	N/A	-0.23	2.06	0.06	1.09	
IM U.S. Large Cap Value Equity (SA+CF) Median	6.29	10.80	17.24	17.24	9.80	14.83	13.01	8.18	14.58	-2.28	12.22	13.63	
Rank	74	68	59	59	41	34	32	N/A	26	46	33	34	
<b>T. Rowe Price Large Cap Value (SA) - Net</b>	<b>5.33</b>	<b>9.43</b>	<b>16.38</b>	<b>16.38</b>	<b>10.00</b>	<b>15.26</b>	<b>13.33</b>	<b>N/A</b>	<b>16.77</b>	<b>-2.06</b>	<b>13.19</b>	<b>13.73</b>	<b>10/01/2009</b>
Russell 1000 Val Index	5.33	8.61	13.66	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	12.99	
Difference	0.00	0.82	2.72	2.72	1.35	1.22	0.87	N/A	-0.57	1.77	-0.26	0.74	

Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.

**Water and Power Employees' Retirement Plan  
Comparative Performance - Health**

**As of December 31, 2017**

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>BlackRock Russell 1000 Index (CF)</b>	<b>6.59</b>	<b>11.36</b>	<b>21.70</b>	<b>21.70</b>	<b>11.25</b>	<b>15.74</b>	<b>13.70</b>	<b>8.67</b>	<b>12.12</b>	<b>0.91</b>	<b>13.27</b>	<b>8.44</b>	<b>01/01/2007</b>
Russell 1000 Index	6.59	11.36	21.69	21.69	11.23	15.71	13.66	8.59	12.05	0.92	13.24	8.33	
Difference	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.08	0.07	-0.01	0.03	0.11	
IM U.S. Large Cap Core Equity (SA+CF) Median	6.68	11.55	21.82	21.82	11.15	15.75	13.74	8.75	10.49	1.39	13.43	8.61	
Rank	56	56	52	52	45	51	52	53	30	56	52	57	
<b>BlackRock Russell 1000 Index (CF) - Net</b>	<b>6.59</b>	<b>11.36</b>	<b>21.70</b>	<b>21.70</b>	<b>11.25</b>	<b>15.73</b>	<b>13.70</b>	<b>8.63</b>	<b>12.12</b>	<b>0.90</b>	<b>13.26</b>	<b>8.40</b>	<b>01/01/2007</b>
Russell 1000 Index	6.59	11.36	21.69	21.69	11.23	15.71	13.66	8.59	12.05	0.92	13.24	8.33	
Difference	0.00	0.00	0.01	0.01	0.02	0.02	0.04	0.04	0.07	-0.02	0.02	0.07	
<b>Fred Alger Large Cap Growth (SA)</b>	<b>5.10</b>	<b>11.22</b>	<b>29.33</b>	<b>29.33</b>	<b>9.72</b>	<b>15.19</b>	<b>12.25</b>	<b>N/A</b>	<b>0.37</b>	<b>1.77</b>	<b>11.78</b>	<b>13.69</b>	<b>10/01/2009</b>
Russell 1000 Grth Index	7.86	14.23	30.21	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	15.63	
Difference	-2.76	-3.01	-0.88	-0.88	-4.07	-2.14	-2.56	N/A	-6.71	-3.90	-1.27	-1.94	
IM U.S. Large Cap Growth Equity (SA+CF) Median	6.92	12.63	28.16	28.16	12.14	16.53	13.93	9.55	4.65	4.93	11.90	14.89	
Rank	85	68	42	42	85	76	86	N/A	85	77	54	78	
<b>Fred Alger Large Cap Growth (SA) - Net</b>	<b>5.02</b>	<b>11.06</b>	<b>28.96</b>	<b>28.96</b>	<b>9.41</b>	<b>14.87</b>	<b>11.92</b>	<b>N/A</b>	<b>0.08</b>	<b>1.48</b>	<b>11.49</b>	<b>13.32</b>	<b>10/01/2009</b>
Russell 1000 Grth Index	7.86	14.23	30.21	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	15.63	
Difference	-2.84	-3.17	-1.25	-1.25	-4.38	-2.46	-2.89	N/A	-7.00	-4.19	-1.56	-2.31	
<b>T. Rowe Price Large Cap Growth (SA)</b>	<b>7.84</b>	<b>15.31</b>	<b>36.61</b>	<b>36.61</b>	<b>17.57</b>	<b>20.77</b>	<b>17.07</b>	<b>N/A</b>	<b>5.70</b>	<b>12.53</b>	<b>9.40</b>	<b>16.52</b>	<b>05/01/2010</b>
Russell 1000 Grth Index	7.86	14.23	30.21	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	14.90	
Difference	-0.02	1.08	6.40	6.40	3.78	3.44	2.26	N/A	-1.38	6.86	-3.65	1.62	
IM U.S. Large Cap Growth Equity (SA+CF) Median	6.92	12.63	28.16	28.16	12.14	16.53	13.93	9.55	4.65	4.93	11.90	14.08	
Rank	22	12	6	6	1	2	3	N/A	41	7	79	6	
<b>T. Rowe Price Large Cap Growth (SA) - Net</b>	<b>7.76</b>	<b>15.13</b>	<b>36.17</b>	<b>36.17</b>	<b>17.18</b>	<b>20.38</b>	<b>16.69</b>	<b>N/A</b>	<b>5.35</b>	<b>12.16</b>	<b>9.08</b>	<b>16.14</b>	<b>05/01/2010</b>
Russell 1000 Grth Index	7.86	14.23	30.21	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	14.90	
Difference	-0.10	0.90	5.96	5.96	3.39	3.05	1.88	N/A	-1.73	6.49	-3.97	1.24	
<b>Earnest Partners Small Cap Value (SA)</b>	<b>6.76</b>	<b>14.60</b>	<b>23.09</b>	<b>23.09</b>	<b>14.50</b>	<b>17.70</b>	<b>15.07</b>	<b>N/A</b>	<b>24.78</b>	<b>-2.27</b>	<b>11.12</b>	<b>16.20</b>	<b>10/01/2009</b>
Russell 2000 Val Index	2.05	7.26	7.84	7.84	9.55	13.01	10.84	8.17	31.74	-7.47	4.22	12.55	
Difference	4.71	7.34	15.25	15.25	4.95	4.69	4.23	N/A	-6.96	5.20	6.90	3.65	
IM U.S. Small Cap Value Equity (SA+CF) Median	3.70	9.16	11.58	11.58	10.52	14.57	12.58	10.09	26.10	-4.30	5.71	14.36	
Rank	8	6	4	4	4	5	6	N/A	58	30	6	15	
<b>Earnest Partners Small Cap Value (SA) - Net</b>	<b>6.61</b>	<b>14.28</b>	<b>22.41</b>	<b>22.41</b>	<b>13.85</b>	<b>17.05</b>	<b>14.42</b>	<b>N/A</b>	<b>24.07</b>	<b>-2.82</b>	<b>10.54</b>	<b>15.52</b>	<b>10/01/2009</b>
Russell 2000 Val Index	2.05	7.26	7.84	7.84	9.55	13.01	10.84	8.17	31.74	-7.47	4.22	12.55	
Difference	4.56	7.02	14.57	14.57	4.30	4.04	3.58	N/A	-7.67	4.65	6.32	2.97	

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	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Emerald Small Cap Growth (SA)</b>	<b>7.94</b>	<b>15.29</b>	<b>29.57</b>	<b>29.57</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>10.14</b>	<b>N/A</b>	<b>N/A</b>	<b>15.55</b>	<b>12/01/2015</b>
Russell 2000 Grth Index	4.59	11.09	22.17	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	13.21	
Difference	3.35	4.20	7.40	7.40	N/A	N/A	N/A	N/A	-1.18	N/A	N/A	2.34	
IM U.S. Small Cap Growth Equity (SA+CF) Median	4.84	11.15	23.47	23.47	11.51	15.80	13.16	9.52	11.40	-0.74	4.08	14.36	
Rank	7	10	19	19	N/A	N/A	N/A	N/A	56	N/A	N/A	37	
<b>Emerald Small Cap Growth (SA) - Net</b>	<b>7.78</b>	<b>14.94</b>	<b>28.81</b>	<b>28.81</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.49</b>	<b>N/A</b>	<b>N/A</b>	<b>14.86</b>	<b>12/01/2015</b>
Russell 2000 Grth Index	4.59	11.09	22.17	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	13.21	
Difference	3.19	3.85	6.64	6.64	N/A	N/A	N/A	N/A	-1.83	N/A	N/A	1.65	
<b>International Equity Composite</b>	<b>5.24</b>	<b>11.46</b>	<b>29.29</b>	<b>29.29</b>	<b>9.52</b>	<b>9.06</b>	<b>6.12</b>	<b>N/A</b>	<b>3.06</b>	<b>-1.40</b>	<b>-1.14</b>	<b>6.81</b>	<b>09/01/2009</b>
MSCI ACW Ex US IM Index (Net)	5.23	11.82	27.81	27.81	8.38	7.22	5.15	2.20	4.41	-4.60	-3.89	6.93	
Difference	0.01	-0.36	1.48	1.48	1.14	1.84	0.97	N/A	-1.35	3.20	2.75	-0.12	
All Public Plans-Intl. Equity Segment Median	4.93	11.27	28.59	28.59	9.06	8.40	6.68	3.17	3.97	-2.54	-2.99	8.06	
Rank	34	47	39	39	39	26	71	N/A	68	29	21	95	
<b>BlackRock Developed Int'l - Passive (CF)</b>	<b>4.51</b>	<b>10.72</b>	<b>25.71</b>	<b>25.71</b>	<b>8.56</b>	<b>8.42</b>	<b>N/A</b>	<b>N/A</b>	<b>3.45</b>	<b>-1.62</b>	<b>-4.13</b>	<b>9.17</b>	<b>10/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	8.74	
Difference	0.05	0.13	0.54	0.54	0.45	0.45	N/A	N/A	0.50	0.33	0.32	0.43	
IM All EAFE (SA+CF) Median	4.19	10.28	26.38	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	9.88	
Rank	34	39	60	60	58	66	N/A	N/A	21	75	50	66	
<b>BlackRock Developed Int'l - Passive (CF) - Net</b>	<b>4.51</b>	<b>10.72</b>	<b>25.71</b>	<b>25.71</b>	<b>8.55</b>	<b>8.40</b>	<b>N/A</b>	<b>N/A</b>	<b>3.45</b>	<b>-1.65</b>	<b>-4.15</b>	<b>9.16</b>	<b>10/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	8.74	
Difference	0.05	0.13	0.54	0.54	0.44	0.43	N/A	N/A	0.50	0.30	0.30	0.42	
<b>MFS Developed Int'l (SA)</b>	<b>5.98</b>	<b>9.45</b>	<b>27.12</b>	<b>27.12</b>	<b>10.74</b>	<b>12.60</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.29</b>	<b>7.13</b>	<b>1.32</b>	<b>13.15</b>	<b>08/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	9.67	
Difference	1.52	-1.14	1.95	1.95	2.63	4.63	N/A	N/A	-3.24	9.08	5.77	3.48	
IM All EAFE (SA+CF) Median	4.19	10.28	26.38	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	10.73	
Rank	9	67	42	42	18	5	N/A	N/A	70	7	6	8	
<b>MFS Developed Int'l (SA) - Net</b>	<b>5.89</b>	<b>9.27</b>	<b>26.69</b>	<b>26.69</b>	<b>10.37</b>	<b>12.23</b>	<b>N/A</b>	<b>N/A</b>	<b>-0.64</b>	<b>6.79</b>	<b>1.01</b>	<b>12.78</b>	<b>08/01/2012</b>
MSCI Wrld Ex US IM Index (USD) (Net)	4.46	10.59	25.17	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	9.67	
Difference	1.43	-1.32	1.52	1.52	2.26	4.26	N/A	N/A	-3.59	8.74	5.46	3.11	

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	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Fidelity Developed Int'l (SA)</b>	<b>3.49</b>	<b>9.56</b>	<b>25.16</b>	<b>25.16</b>	<b>7.88</b>	<b>8.18</b>	<b>6.54</b>	<b>N/A</b>	<b>-0.67</b>	<b>0.98</b>	<b>-5.98</b>	<b>7.38</b>	<b>10/01/2009</b>
International Developed Blend	4.46	10.59	25.17	25.17	8.11	7.97	5.90	2.69	2.95	-1.95	-4.45	6.57	
Difference	-0.97	-1.03	-0.01	-0.01	-0.23	0.21	0.64	N/A	-3.62	2.93	-1.53	0.81	
IM All EAFE (SA+CF) Median	4.19	10.28	26.38	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	8.04	
Rank	76	65	66	66	75	71	73	N/A	73	54	80	67	
<b>Fidelity Developed Int'l (SA) - Net</b>	<b>3.42</b>	<b>9.40</b>	<b>24.81</b>	<b>24.81</b>	<b>7.58</b>	<b>7.88</b>	<b>6.24</b>	<b>N/A</b>	<b>-0.94</b>	<b>0.71</b>	<b>-6.23</b>	<b>7.06</b>	<b>10/01/2009</b>
International Developed Blend	4.46	10.59	25.17	25.17	8.11	7.97	5.90	2.69	2.95	-1.95	-4.45	6.57	
Difference	-1.04	-1.19	-0.36	-0.36	-0.53	-0.09	0.34	N/A	-3.89	2.66	-1.78	0.49	
<b>LA Capital Emerging (CF)</b>	<b>7.25</b>	<b>15.90</b>	<b>37.13</b>	<b>37.13</b>	<b>9.28</b>	<b>5.17</b>	<b>N/A</b>	<b>N/A</b>	<b>12.11</b>	<b>-15.10</b>	<b>0.24</b>	<b>6.18</b>	<b>10/01/2012</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	5.32	
Difference	-0.42	0.05	0.30	0.30	0.27	0.70	N/A	N/A	2.21	-1.24	2.03	0.86	
IM Emerging Markets Equity (SA+CF) Median	6.99	14.85	37.14	37.14	9.84	5.87	4.34	3.12	9.96	-12.66	-0.16	6.69	
Rank	45	38	51	51	58	67	N/A	N/A	35	72	46	65	
<b>LA Capital Emerging (CF) - Net</b>	<b>7.08</b>	<b>15.52</b>	<b>36.24</b>	<b>36.24</b>	<b>8.58</b>	<b>4.50</b>	<b>N/A</b>	<b>N/A</b>	<b>11.39</b>	<b>-15.65</b>	<b>-0.36</b>	<b>5.51</b>	<b>10/01/2012</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	5.32	
Difference	-0.59	-0.33	-0.59	-0.59	-0.43	0.03	N/A	N/A	1.49	-1.79	1.43	0.19	
<b>Wellington Emerging (SA)</b>	<b>6.42</b>	<b>15.81</b>	<b>40.87</b>	<b>40.87</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>27.08</b>	<b>10/01/2016</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	23.92	
Difference	-1.25	-0.04	4.04	4.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.16	
IM Emerging Markets Equity (SA+CF) Median	6.99	14.85	37.14	37.14	9.84	5.87	4.34	3.12	9.96	-12.66	-0.16	24.08	
Rank	64	39	30	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29	
<b>Wellington Emerging (SA) - Net</b>	<b>6.27</b>	<b>15.48</b>	<b>40.07</b>	<b>40.07</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>26.36</b>	<b>10/01/2016</b>
MSCI Emg Mkts IM Index (USD) (Net)	7.67	15.85	36.83	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	23.92	
Difference	-1.40	-0.37	3.24	3.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.44	

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	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Fixed Income Composite</b>	<b>0.48</b>	<b>1.80</b>	<b>4.89</b>	<b>4.89</b>	<b>3.51</b>	<b>3.13</b>	<b>4.37</b>	<b>5.51</b>	<b>4.85</b>	<b>0.83</b>	<b>6.05</b>	<b>5.66</b>	<b>01/01/2007</b>
Fixed Income Custom Index (H)	0.40	1.55	4.12	4.12	3.26	2.78	3.82	4.53	5.65	0.11	5.56	4.75	
Difference	0.08	0.25	0.77	0.77	0.25	0.35	0.55	0.98	-0.80	0.72	0.49	0.91	
All Public Plans-US Fixed Income Segment Median	0.62	1.65	4.54	4.54	2.92	2.60	4.01	4.68	4.52	0.30	6.01	4.77	
Rank	60	42	42	42	39	38	40	22	42	28	49	20	
<b>JP Morgan Principal Protection (SA)</b>	<b>-0.14</b>	<b>0.41</b>	<b>1.87</b>	<b>1.87</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.92</b>	<b>N/A</b>	<b>N/A</b>	<b>1.69</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.01	-0.09	0.07	0.07	N/A	N/A	N/A	N/A	0.52	N/A	N/A	0.25	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.51	1.45	4.03	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	3.18	
Rank	99	99	100	100	N/A	N/A	N/A	N/A	97	N/A	N/A	100	
<b>JP Morgan Principal Protection (SA) - Net</b>	<b>-0.17</b>	<b>0.36</b>	<b>1.77</b>	<b>1.77</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.81</b>	<b>N/A</b>	<b>N/A</b>	<b>1.59</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.04	-0.14	-0.03	-0.03	N/A	N/A	N/A	N/A	0.41	N/A	N/A	0.15	
<b>Wells Principal Protection (SA)</b>	<b>-0.19</b>	<b>0.53</b>	<b>1.94</b>	<b>1.94</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.85</b>	<b>N/A</b>	<b>N/A</b>	<b>1.68</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.06	0.03	0.14	0.14	N/A	N/A	N/A	N/A	0.45	N/A	N/A	0.24	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.51	1.45	4.03	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	3.18	
Rank	99	99	100	100	N/A	N/A	N/A	N/A	98	N/A	N/A	100	
<b>Wells Principal Protection (SA) - Net</b>	<b>-0.22</b>	<b>0.48</b>	<b>1.83</b>	<b>1.83</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.72</b>	<b>N/A</b>	<b>N/A</b>	<b>1.56</b>	<b>09/01/2015</b>
Bloomberg US Int Agg Ex Credit	-0.13	0.50	1.80	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	1.44	
Difference	-0.09	-0.02	0.03	0.03	N/A	N/A	N/A	N/A	0.32	N/A	N/A	0.12	
<b>Macquarie Unconstrained (SA)</b>	<b>0.90</b>	<b>2.83</b>	<b>7.99</b>	<b>7.99</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.35</b>	<b>N/A</b>	<b>N/A</b>	<b>6.20</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	-0.01	0.18	1.26	1.26	N/A	N/A	N/A	N/A	-1.69	N/A	N/A	-0.49	
IM Global Fixed Income (SA+CF) Median	0.87	2.72	7.63	7.63	3.47	3.06	4.04	4.77	5.75	-2.31	2.48	5.19	
Rank	48	46	44	44	N/A	N/A	N/A	N/A	34	N/A	N/A	34	
<b>Macquarie Unconstrained (SA) - Net</b>	<b>0.86</b>	<b>2.74</b>	<b>7.81</b>	<b>7.81</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>8.17</b>	<b>N/A</b>	<b>N/A</b>	<b>6.02</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	-0.05	0.09	1.08	1.08	N/A	N/A	N/A	N/A	-1.87	N/A	N/A	-0.67	

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<b>Neuberger Unconstrained (SA)</b>	<b>1.49</b>	<b>3.86</b>	<b>9.42</b>	<b>9.42</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.48</b>	<b>N/A</b>	<b>N/A</b>	<b>7.95</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	0.58	1.21	2.69	2.69	N/A	N/A	N/A	N/A	-0.56	N/A	N/A	1.26	
IM Global Fixed Income (SA+CF) Median	0.87	2.72	7.63	7.63	3.47	3.06	4.04	4.77	5.75	-2.31	2.48	5.19	
Rank	18	19	25	25	N/A	N/A	N/A	N/A	31	N/A	N/A	18	
<b>Neuberger Unconstrained (SA) - Net</b>	<b>1.44</b>	<b>3.74</b>	<b>9.17</b>	<b>9.17</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.23</b>	<b>N/A</b>	<b>N/A</b>	<b>7.70</b>	<b>09/01/2015</b>
67% B Global Credit/33% B Global High Yield	0.91	2.65	6.73	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	6.69	
Difference	0.53	1.09	2.44	2.44	N/A	N/A	N/A	N/A	-0.81	N/A	N/A	1.01	
<b>Pacific Asset Bank Loans (SA)</b>	<b>1.11</b>	<b>2.71</b>	<b>5.40</b>	<b>5.40</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.37</b>	<b>N/A</b>	<b>N/A</b>	<b>5.97</b>	<b>09/01/2015</b>
CS Lvg'd Loan Index	1.17	2.24	4.25	4.25	4.50	4.33	4.68	4.57	9.88	-0.38	2.06	4.79	
Difference	-0.06	0.47	1.15	1.15	N/A	N/A	N/A	N/A	-0.51	N/A	N/A	1.18	
IM U.S. Bank Loans (SA+CF) Median	1.24	2.44	4.46	4.46	4.78	4.52	5.04	5.16	9.51	0.76	2.06	4.91	
Rank	84	24	9	9	N/A	N/A	N/A	N/A	53	N/A	N/A	10	
<b>Pacific Asset Bank Loans (SA) - Net</b>	<b>1.03</b>	<b>2.54</b>	<b>5.06</b>	<b>5.06</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>9.02</b>	<b>N/A</b>	<b>N/A</b>	<b>5.64</b>	<b>09/01/2015</b>
CS Lvg'd Loan Index	1.17	2.24	4.25	4.25	4.50	4.33	4.68	4.57	9.88	-0.38	2.06	4.79	
Difference	-0.14	0.30	0.81	0.81	N/A	N/A	N/A	N/A	-0.86	N/A	N/A	0.85	
<b>Real Return Composite</b>	<b>3.35</b>	<b>4.83</b>	<b>3.97</b>	<b>3.97</b>	<b>3.53</b>	<b>1.63</b>	<b>3.31</b>	<b>N/A</b>	<b>9.56</b>	<b>-2.58</b>	<b>2.26</b>	<b>3.57</b>	<b>04/01/2010</b>
CPI+3% (Blended)	1.36	3.10	5.17	5.17	4.66	4.34	3.99	3.94	5.15	3.68	3.68	3.91	
Difference	1.99	1.73	-1.20	-1.20	-1.13	-2.71	-0.68	N/A	4.41	-6.26	-1.42	-0.34	
<b>Invesco Commodity (CF)</b>	<b>7.94</b>	<b>13.09</b>	<b>5.95</b>	<b>5.95</b>	<b>0.56</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>14.05</b>	<b>-15.83</b>	<b>-15.59</b>	<b>-4.37</b>	<b>08/01/2013</b>
Bloomberg Cmdty Index (TR)	4.71	7.35	1.70	1.70	-5.04	-8.45	-8.15	-6.83	11.77	-24.66	-17.01	-7.50	
Difference	3.23	5.74	4.25	4.25	5.60	N/A	N/A	N/A	2.28	8.83	1.42	3.13	
<b>Invesco Commodity (CF) - Net</b>	<b>7.76</b>	<b>12.72</b>	<b>5.26</b>	<b>5.26</b>	<b>-0.10</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>13.30</b>	<b>-16.41</b>	<b>-16.12</b>	<b>-4.96</b>	<b>08/01/2013</b>
Bloomberg Cmdty Index (TR)	4.71	7.35	1.70	1.70	-5.04	-8.45	-8.15	-6.83	11.77	-24.66	-17.01	-7.50	
Difference	3.05	5.37	3.56	3.56	4.94	N/A	N/A	N/A	1.53	8.25	0.89	2.54	
<b>Hancock Timberland (CF) (Lagged-1 Qtr) - Net</b>	<b>-0.40</b>	<b>-1.10</b>	<b>4.65</b>	<b>4.65</b>	<b>3.01</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>4.81</b>	<b>-0.34</b>	<b>N/A</b>	<b>1.89</b>	<b>04/01/2014</b>
NCREIF Timberland Index (Lagged-1 Qtr)	0.60	1.30	3.28	3.28	5.24	7.13	5.41	5.21	3.28	9.26	10.38	5.32	
Difference	-1.00	-2.40	1.37	1.37	-2.23	N/A	N/A	N/A	1.53	-9.60	N/A	-3.43	
<b>Molpus IV (CF) (Lagged-1 Qtr) - Net</b>	<b>0.23</b>	<b>0.39</b>	<b>4.52</b>	<b>4.52</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.91</b>	<b>N/A</b>	<b>N/A</b>	<b>-5.96</b>	<b>09/01/2015</b>
NCREIF Timberland Index (Lagged-1 Qtr)	0.60	1.30	3.28	3.28	5.24	7.13	5.41	5.21	3.28	9.26	10.38	3.37	
Difference	-0.37	-0.91	1.24	1.24	N/A	N/A	N/A	N/A	-5.19	N/A	N/A	-9.33	

Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.



**Water and Power Employees' Retirement Plan  
Comparative Performance - Health**

**As of December 31, 2017**

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>WAMCO (SA)</b>	<b>2.27</b>	<b>2.84</b>	<b>3.29</b>	<b>3.29</b>	<b>4.08</b>	<b>3.01</b>	<b>4.37</b>	<b>N/A</b>	<b>9.36</b>	<b>-0.18</b>	<b>9.13</b>	<b>4.32</b>	<b>04/01/2010</b>
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	2.51	3.09	3.38	3.38	4.06	3.03	4.51	4.61	10.22	-1.12	9.04	4.60	
Difference	-0.24	-0.25	-0.09	-0.09	0.02	-0.02	-0.14	N/A	-0.86	0.94	0.09	-0.28	
<b>WAMCO (SA) - Net</b>	<b>2.23</b>	<b>2.75</b>	<b>3.11</b>	<b>3.11</b>	<b>3.90</b>	<b>2.84</b>	<b>4.18</b>	<b>N/A</b>	<b>9.17</b>	<b>-0.35</b>	<b>8.97</b>	<b>4.13</b>	<b>04/01/2010</b>
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	2.51	3.09	3.38	3.38	4.06	3.03	4.51	4.61	10.22	-1.12	9.04	4.60	
Difference	-0.28	-0.34	-0.27	-0.27	-0.16	-0.19	-0.33	N/A	-1.05	0.77	-0.07	-0.47	
<b>Hedge Funds Composite - Net</b>	<b>1.11</b>	<b>1.40</b>	<b>3.91</b>	<b>3.91</b>	<b>0.92</b>	<b>2.99</b>	<b>2.94</b>	<b>N/A</b>	<b>-2.30</b>	<b>1.24</b>	<b>3.57</b>	<b>3.30</b>	<b>09/01/2010</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.21	
Difference	0.11	-0.62	0.10	0.10	-2.47	-0.27	-0.27	N/A	-5.63	-1.78	0.52	0.09	
<b>Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net</b>	<b>0.98</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>0.98</b>	<b>09/01/2017</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	1.35	
Difference	-0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.37	
<b>GAM Divergent (CF) (Lagged-1 Mo) - Net</b>	<b>-0.14</b>	<b>0.29</b>	<b>1.21</b>	<b>1.21</b>	<b>0.52</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-3.23</b>	<b>3.70</b>	<b>4.83</b>	<b>1.55</b>	<b>12/01/2013</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.30	
Difference	-1.14	-1.73	-2.60	-2.60	-2.87	N/A	N/A	N/A	-6.56	0.68	1.78	-1.75	
<b>MS Convergent (CF) (Lagged-1 Mo) - Net</b>	<b>2.76</b>	<b>3.09</b>	<b>7.39</b>	<b>7.39</b>	<b>1.51</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>-1.27</b>	<b>-1.34</b>	<b>N/A</b>	<b>1.36</b>	<b>03/01/2014</b>
BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.00	2.02	3.81	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.31	
Difference	1.76	1.07	3.58	3.58	-1.88	N/A	N/A	N/A	-4.60	-4.36	N/A	-1.95	

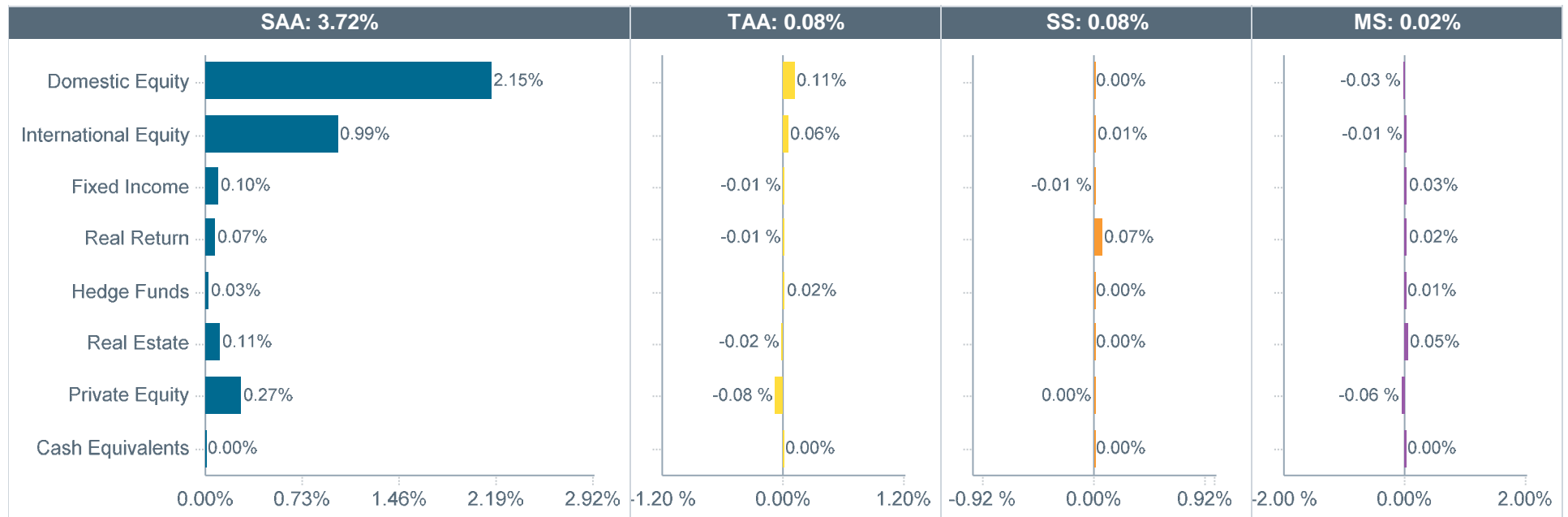
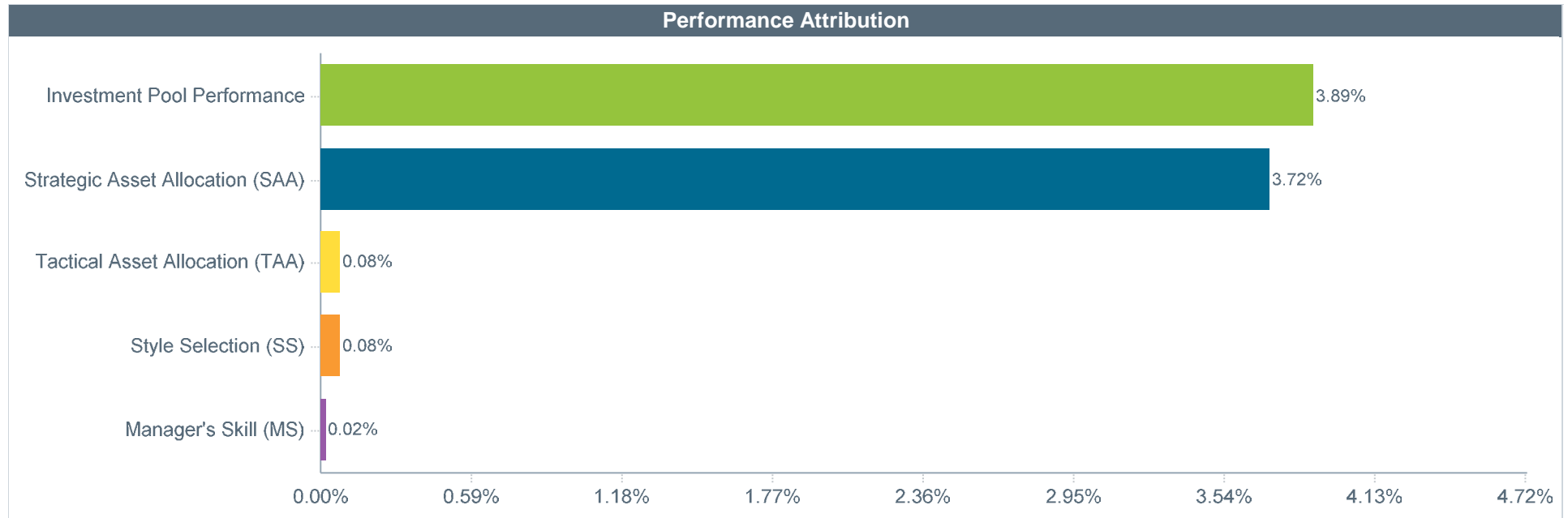
Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.

**Water and Power Employees' Retirement Plan**  
**Alternative Investment Fund Performance Listing - Health**

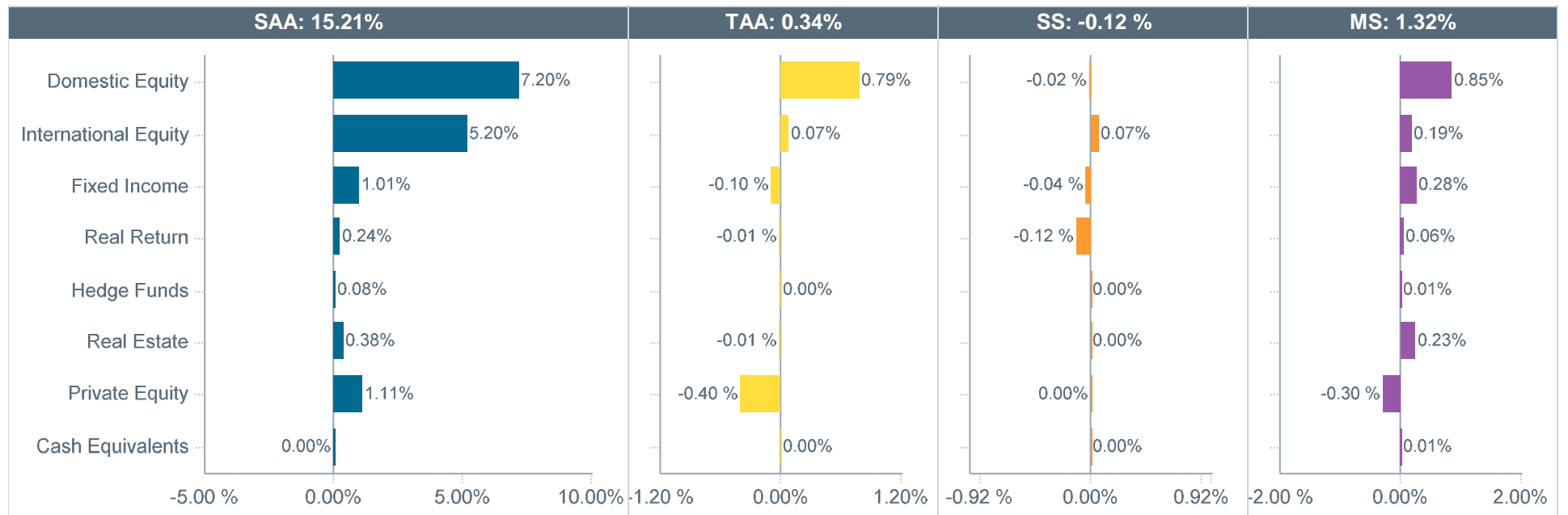
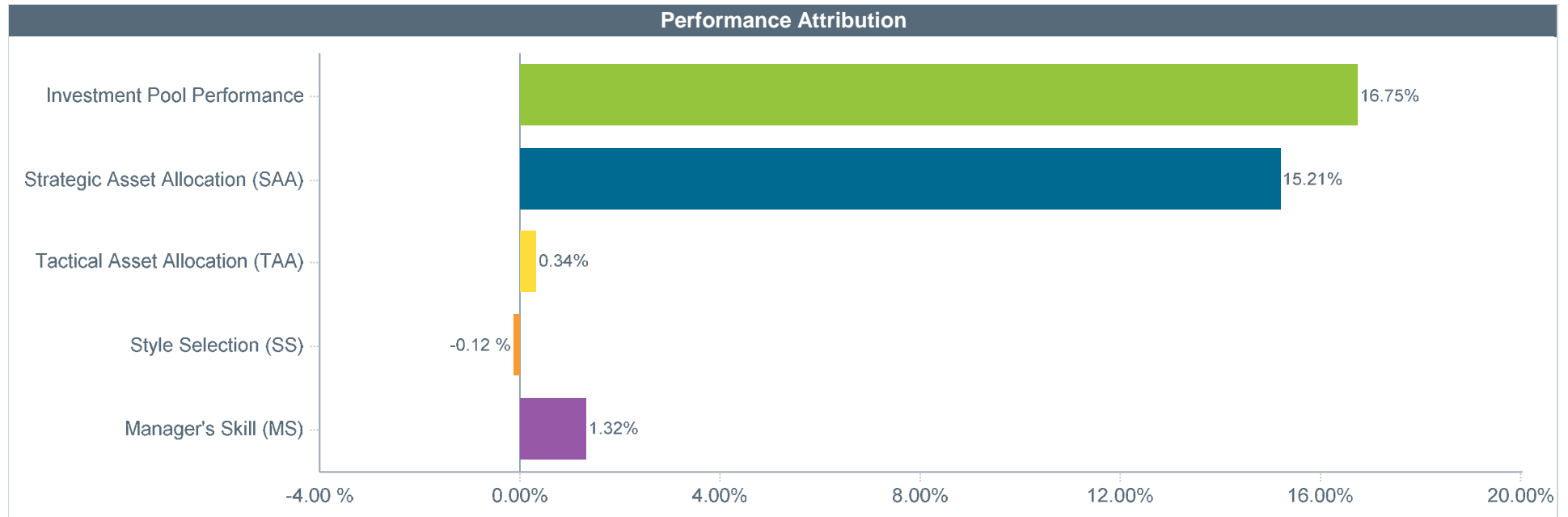
**As of September 30, 2017**

	Market Value	% of Alt. Inv. Group	% of Total Fund	Inception IRR	Inception Date
<b>Private Equity</b>	<b>\$ 68,434,530</b>	<b>40.14%</b>	<b>3.45%</b>	<b>15.27%</b>	<b>Aug-09</b>
Adams Street SMB I	\$ 1,702,125	1.00%	0.09%	-3.75%	Jan-17
Apollo VIII	\$ 4,299,118	2.52%	0.22%	21.36%	Jan-14
Ares IV	\$ 4,039,651	2.37%	0.20%	18.87%	Nov-12
Ares Special Situation IV	\$ 3,016,031	1.77%	0.15%	-16.41%	Jan-15
Ares V	\$ 1,070,653	0.63%	0.05%	0.14%	Jan-15
Audax Mezz III	\$ 1,467,330	0.86%	0.07%	13.00%	Jan-11
Blackstone Tactical Opps	\$ 5,622,106	3.30%	0.28%	19.81%	Apr-15
CDR IX	\$ 3,374,598	1.98%	0.17%	21.22%	Apr-14
Crestview Partners III	\$ 3,717,380	2.18%	0.19%	21.79%	Feb-15
EnCap VIII	\$ 1,106,743	0.65%	0.06%	-1.11%	Jan-11
EnCap IX	\$ 2,114,727	1.24%	0.11%	19.57%	Jan-13
EnCAP X	\$ 3,697,884	2.17%	0.19%	27.65%	Feb-15
Harvest VII	\$ 1,647,464	0.97%	0.08%	13.00%	Nov-15
Industry Ventures VIII	\$ 545,990	0.32%	0.03%	54.42%	Aug-16
Landmark XIV	\$ 1,908,311	1.12%	0.10%	13.45%	Aug-08
Landmark XV	\$ 2,608,031	1.53%	0.13%	15.67%	Feb-14
Lexington VII	\$ 1,855,385	1.09%	0.09%	17.59%	Aug-09
Oaktree V	\$ 1,210,106	0.71%	0.06%	5.70%	Jan-09
Silver Lake IV	\$ 2,849,811	1.67%	0.14%	34.56%	Sep-13
Vista IV	\$ 4,122,751	2.42%	0.21%	21.43%	Sep-11
Vista V	\$ 9,742,740	5.71%	0.49%	16.42%	Apr-14
Vista VI	\$ 6,715,595	3.94%	0.34%	8.14%	Jun-16
<b>Real Estate</b>	<b>\$ 102,043,438</b>	<b>59.86%</b>	<b>5.15%</b>	<b>13.13%</b>	<b>Jan-10</b>
AG Core Plus III	\$ 708,382	0.42%	0.04%	25.22%	Jan-12
Almanac VI	\$ 811,149	0.48%	0.04%	18.55%	Jun-12
Almanac VII	\$ 2,496,101	1.46%	0.13%	15.75%	Mar-15
BREP Europe IV	\$ 5,109,104	3.00%	0.26%	18.02%	Dec-13
BREP VII	\$ 4,362,362	2.56%	0.22%	20.58%	Jun-12
Bristol Value II	\$ 2,829,891	1.66%	0.14%	11.51%	Nov-12
Dimensional Global REIT	\$ 6,007,792	3.52%	0.30%	7.10%	Mar-13
DRA G&I IX	\$ 2,719,105	1.59%	0.14%	13.18%	Sep-16
DRA G&I VIII	\$ 2,045,186	1.20%	0.10%	14.22%	Jun-14
DRA VII	\$ 4,385,132	2.57%	0.22%	21.25%	Oct-11
FPA Core Plus III	\$ 5,804,527	3.40%	0.29%	1.43%	Jan-17
Harrison Street Core	\$ 11,334,244	6.65%	0.57%	9.96%	Aug-15
Heitman REIT	\$ 5,737,504	3.37%	0.29%	9.06%	Sep-13
Invesco Core Realty	\$ 8,986,374	5.27%	0.45%	10.80%	Jun-11
Jamestown Premier	\$ 9,898,732	5.81%	0.50%	6.97%	Mar-15
Lone Star RE II	\$ 147,822	0.09%	0.01%	28.87%	May-11
Lone Star RE IV	\$ 5,430,689	3.19%	0.27%	18.74%	Jun-15
Lone Star VII	\$ 33,075	0.02%	0.00%	49.78%	May-11
Lone Star RE V	\$ 1,138,429	0.67%	0.06%	-27.58%	Aug-17
Mesa West III	\$ 2,303,111	1.35%	0.12%	10.18%	Aug-13
Mesa West IV	\$ 2,058,420	1.21%	0.10%	2.32%	Feb-16
PCCP First Mtg II	\$ 388,347	0.23%	0.02%	7.19%	Jun-12
Prologis USLH	\$ 6,876,464	4.03%	0.35%	16.89%	Mar-15
Torchlight IV	\$ 4,150,928	2.43%	0.21%	12.29%	Aug-13
Torchlight V	\$ 3,802,964	2.23%	0.19%	12.85%	Mar-15
Westbrook X	\$ 2,477,604	1.45%	0.12%	23.15%	Feb-16

Market values and performance were provided by Northern Trust.



Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.

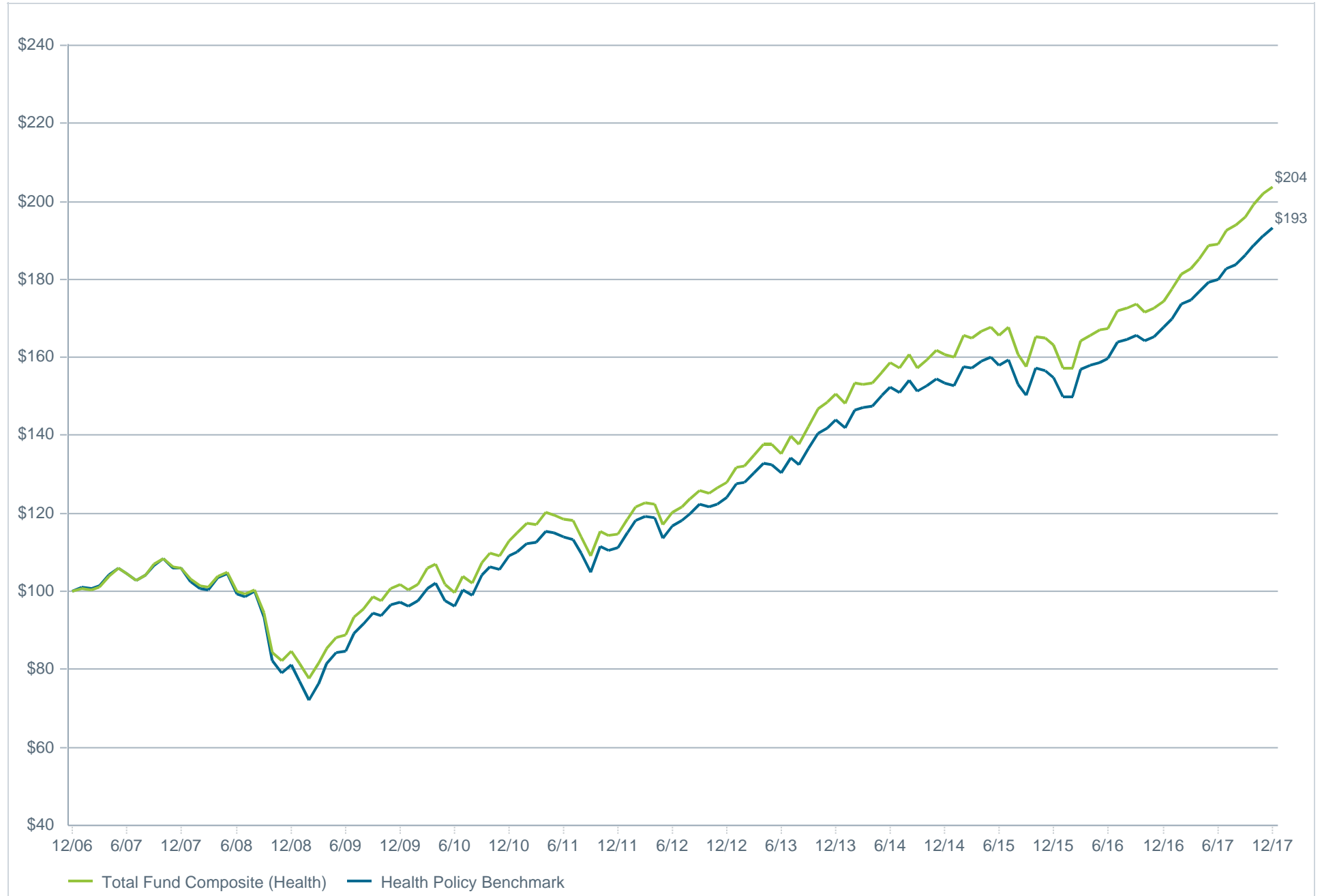


Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



**Water and Power Employees' Retirement Plan**  
**Growth of \$100 - Health**

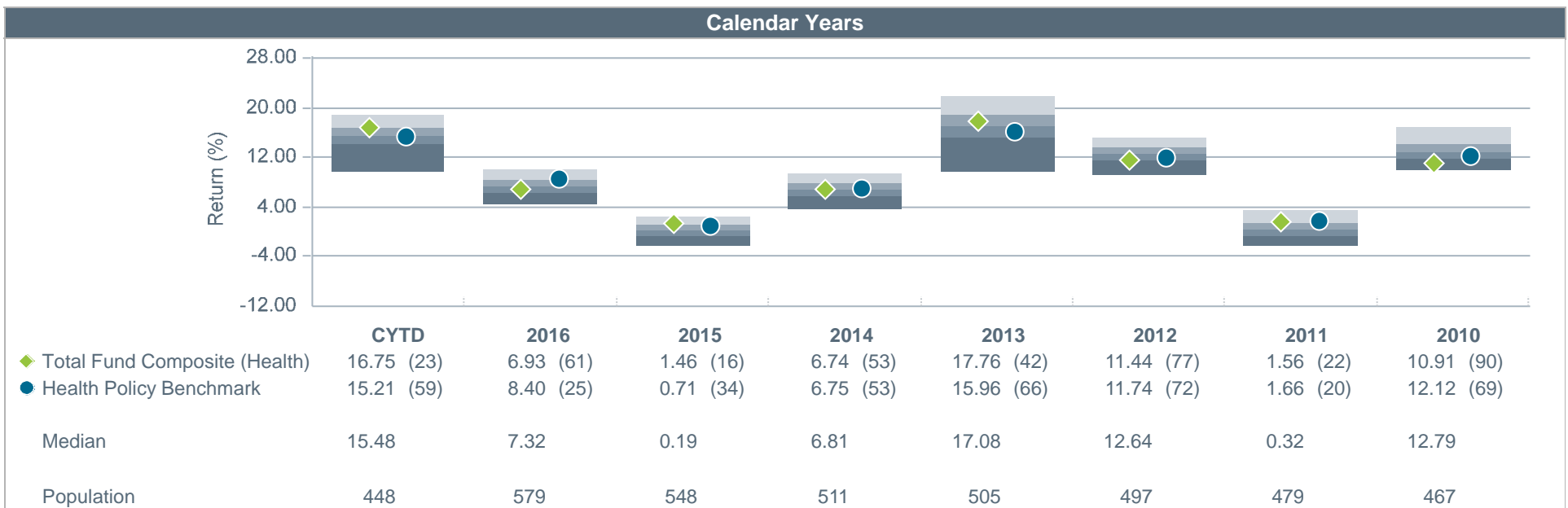
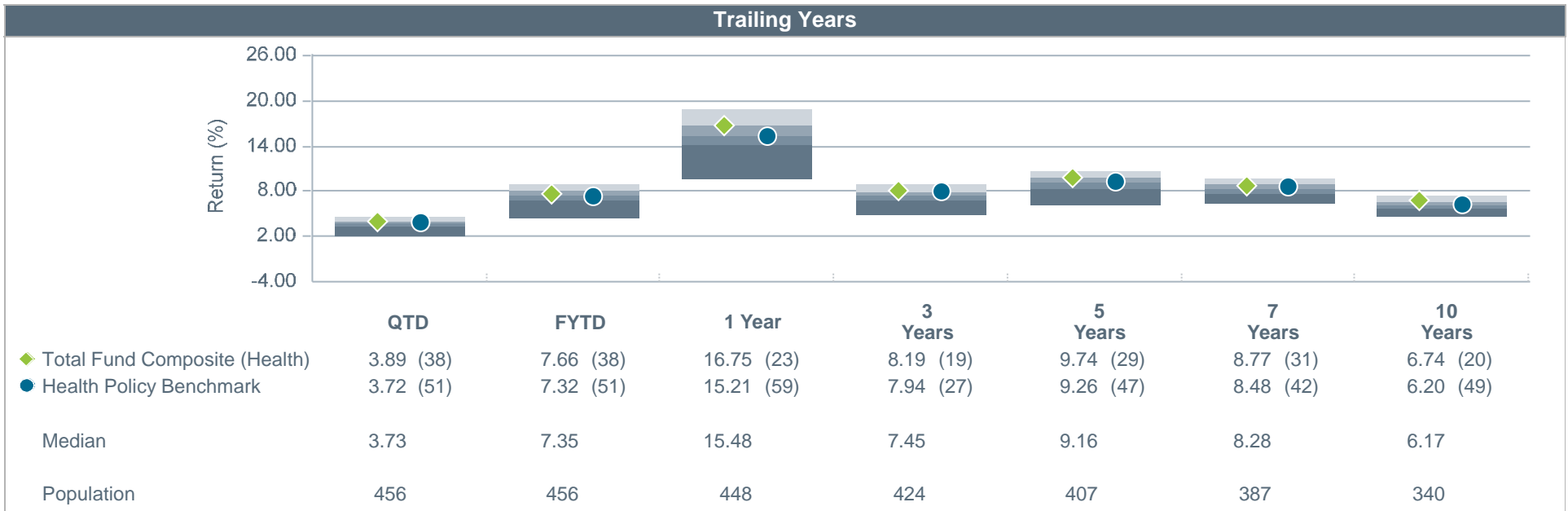
Since Inception Ending December 31, 2017



Performance shown is gross of fees. Calculation is based on monthly periodicity.

Water and Power Employees' Retirement Plan  
Plan Sponsor Peer Group Analysis - Health  
All Public Plans-Total Fund

As of December 31, 2017

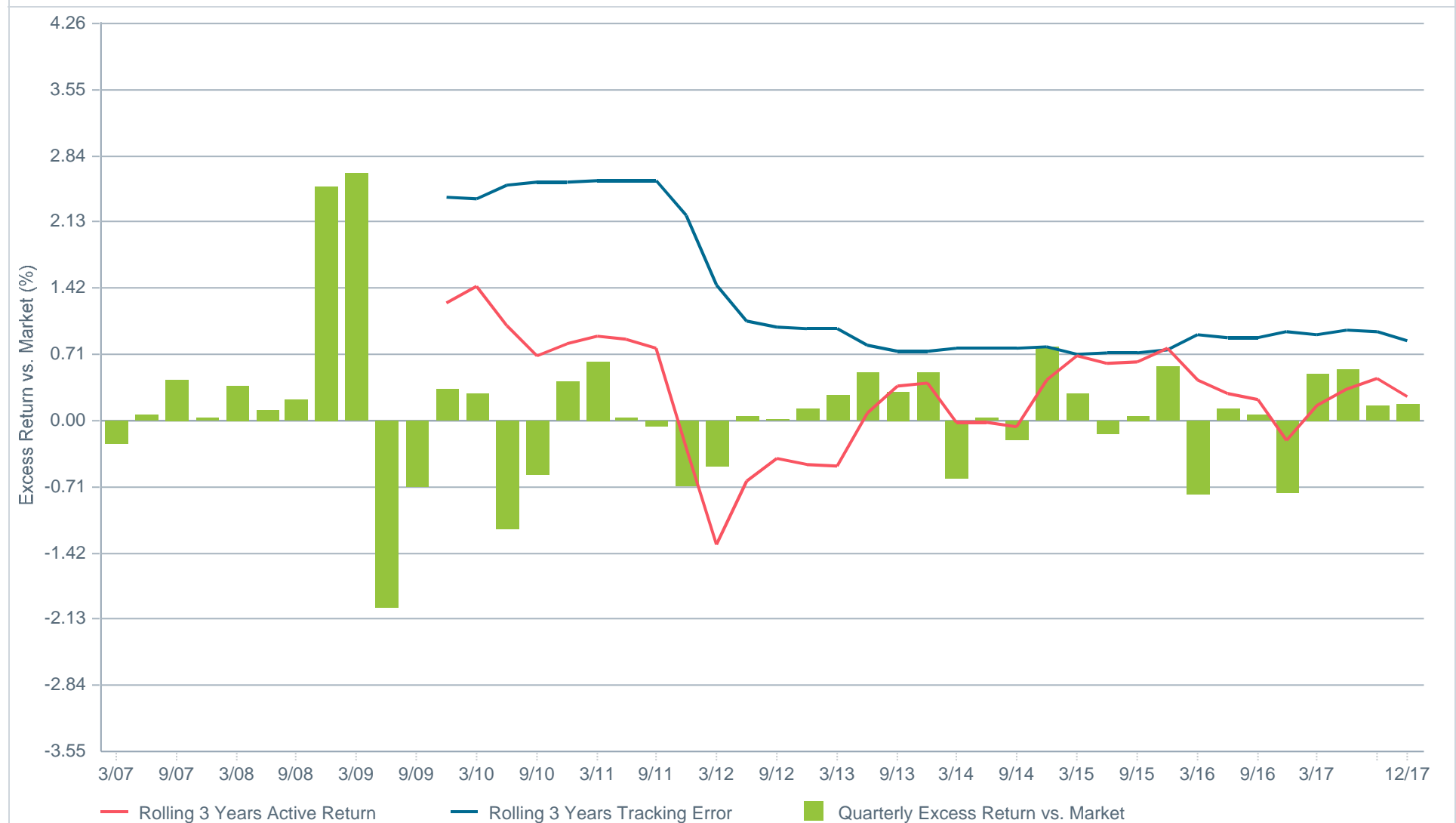


Performance shown is gross of fees. Parenthesis contain percentile ranks.

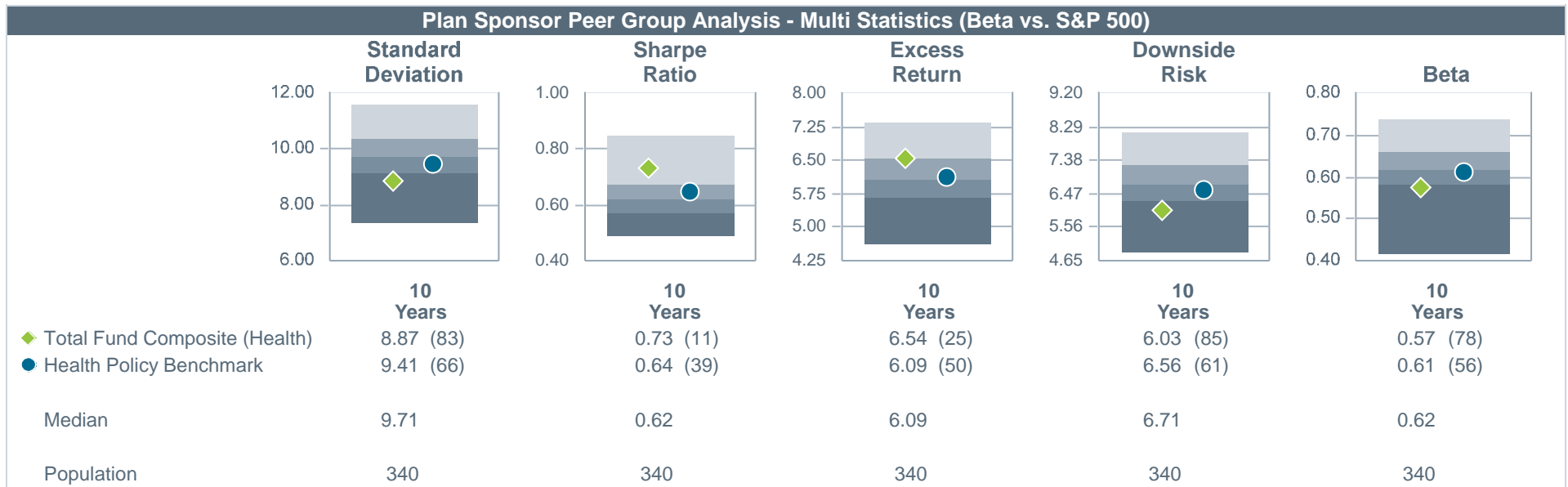
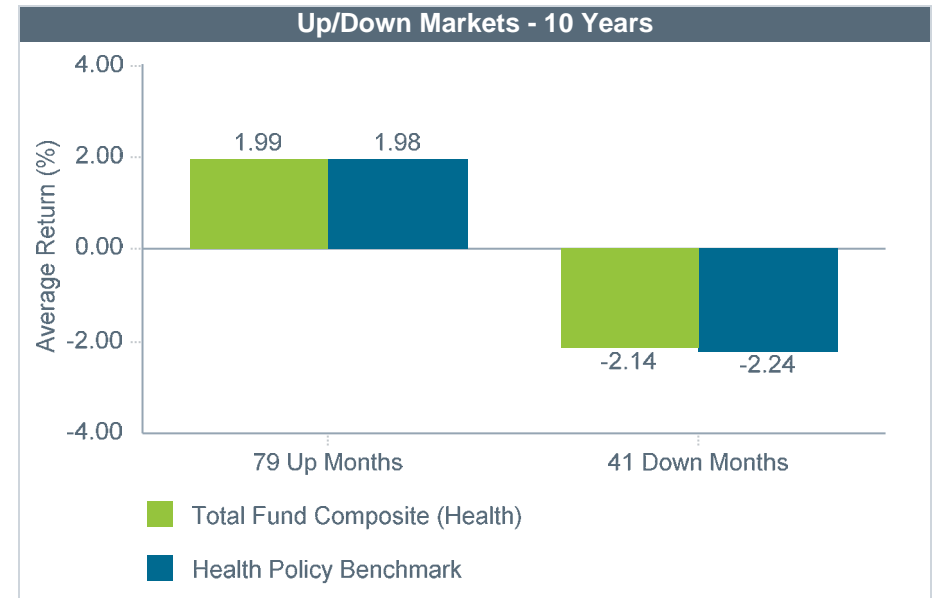
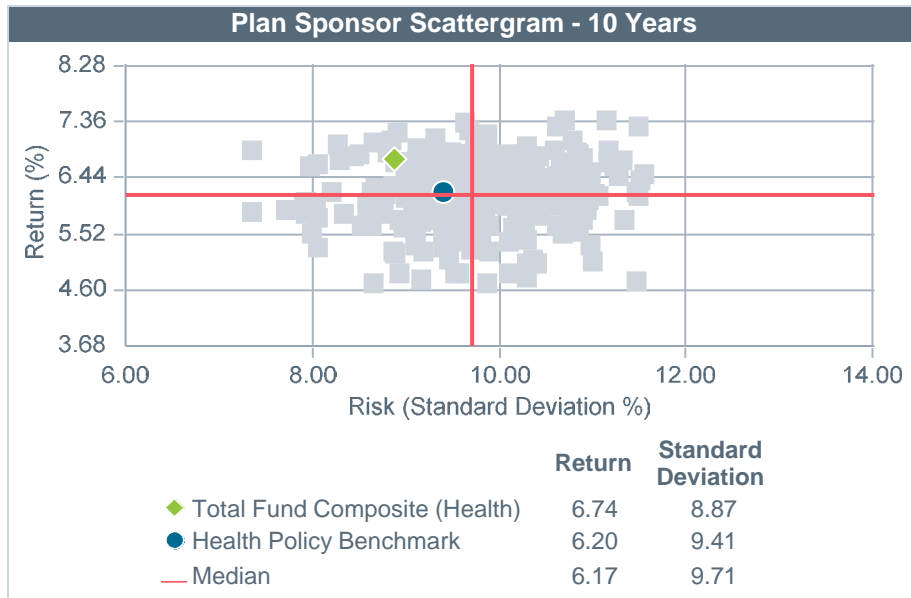
**Water and Power Employees' Retirement Plan**  
**Total Fund Composite (Health) vs. Health Policy Benchmark**  
**Comparative Performance & Rolling Return - Health**

As of December 31, 2017

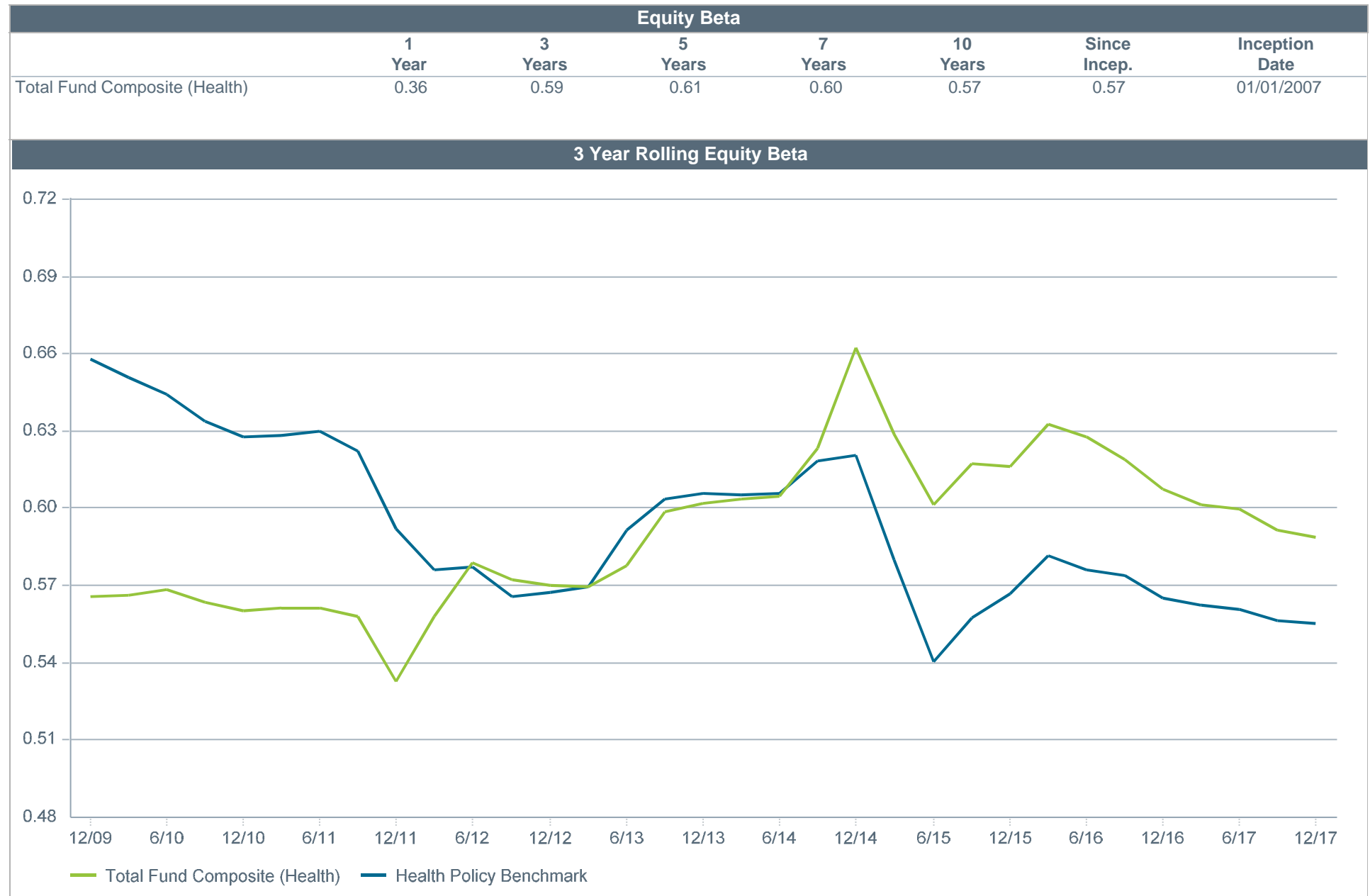
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
<b>Total Fund Composite (Health)</b>	<b>3.89</b>	<b>7.66</b>	<b>16.75</b>	<b>16.75</b>	<b>8.19</b>	<b>9.74</b>	<b>8.77</b>	<b>6.74</b>	<b>6.93</b>	<b>1.46</b>	<b>6.74</b>	<b>17.76</b>	<b>11.44</b>
Health Policy Benchmark	3.72	7.32	15.21	15.21	7.94	9.26	8.48	6.20	8.40	0.71	6.75	15.96	11.74
Difference	0.17	0.34	1.54	1.54	0.25	0.48	0.29	0.54	-1.47	0.75	-0.01	1.80	-0.30



Performance shown is gross of fees. Calculation is based on quarterly periodicity. Fiscal year ends 06/30.

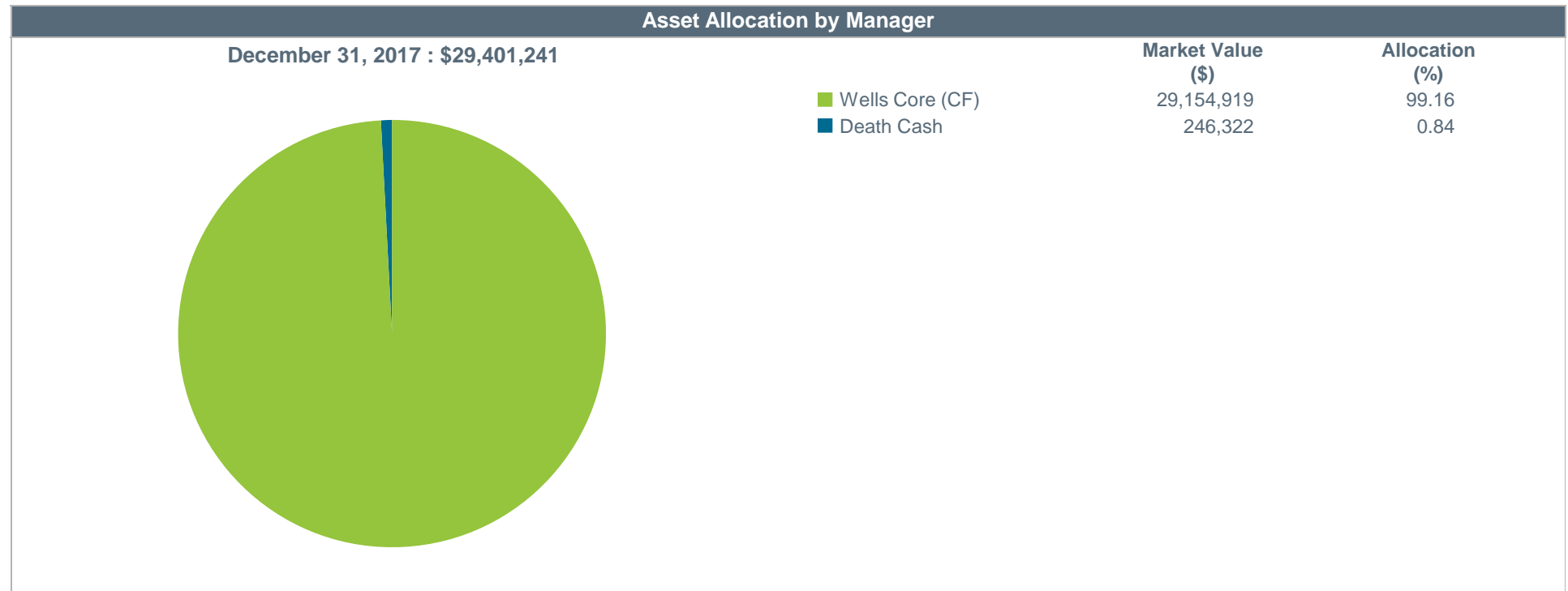


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Performance shown is gross of fees. The objective of the Total Fund Beta is to measure the aggregate level of non-diversifiable or systematic equity risk exposure of the Water and Power Employees' Retirement Plan - Health. The Total Fund Beta is calculated using the S&P 500 Index (Cap Wtd) as the benchmark and is based on monthly periodicity. It represents a measure of the sensitivity of the total fund to movements of the S&P 500 Index (Cap Wtd) over the preceding three year period.

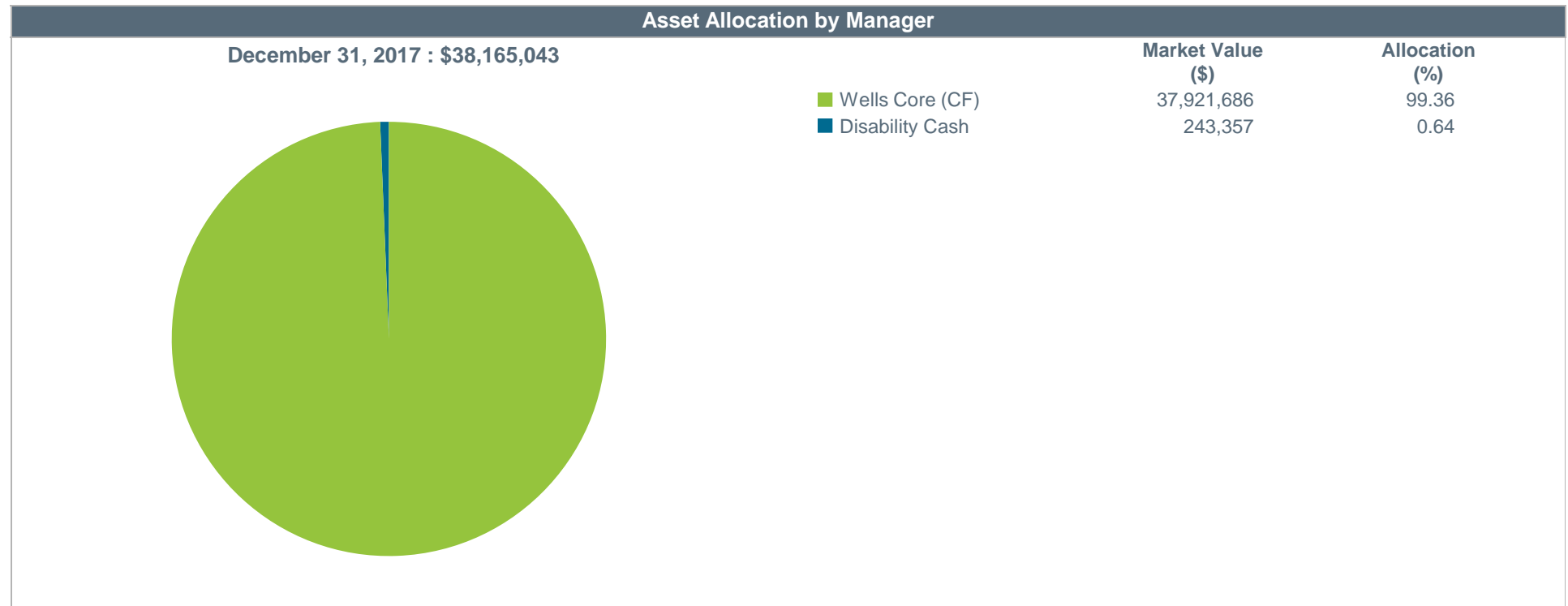
# Total Fund - Death and Disability



Comparative Performance													
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Total Fund Composite (Death)</b>	<b>0.34</b>	<b>1.26</b>	<b>3.41</b>	<b>3.41</b>	<b>2.46</b>	<b>2.33</b>	<b>3.83</b>	<b>4.66</b>	<b>2.92</b>	<b>1.08</b>	<b>6.06</b>	<b>5.41</b>	<b>12/01/1995</b>
Death Policy Benchmark	0.38	1.21	3.43	3.43	2.17	2.03	3.08	3.86	2.55	0.53	5.72	5.06	
Difference	-0.04	0.05	-0.02	-0.02	0.29	0.30	0.75	0.80	0.37	0.55	0.34	0.35	
<b>Wells Core (CF)</b>	<b>0.34</b>	<b>1.27</b>	<b>3.46</b>	<b>3.46</b>	<b>2.49</b>	<b>2.36</b>	<b>3.94</b>	<b>5.10</b>	<b>2.98</b>	<b>1.06</b>	<b>6.18</b>	<b>5.14</b>	<b>07/01/2004</b>
Bloomberg US Agg Bond Index	0.39	1.24	3.54	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	4.29	
Difference	-0.05	0.03	-0.08	-0.08	0.25	0.26	0.74	1.09	0.33	0.51	0.21	0.85	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.51	1.45	4.03	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	4.74	
Rank	90	77	87	87	63	59	32	15	57	27	48	17	
<b>Wells Core (CF) - Net</b>	<b>0.34</b>	<b>1.27</b>	<b>3.46</b>	<b>3.46</b>	<b>2.49</b>	<b>2.36</b>	<b>3.94</b>	<b>5.10</b>	<b>2.98</b>	<b>1.06</b>	<b>6.19</b>	<b>4.89</b>	<b>07/01/2004</b>
Bloomberg US Agg Bond Index	0.39	1.24	3.54	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	4.29	
Difference	-0.05	0.03	-0.08	-0.08	0.25	0.26	0.74	1.09	0.33	0.51	0.22	0.60	

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.





Comparative Performance													
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	Since Incep.	Inception Date
<b>Total Fund Composite (Disability)</b>	<b>0.34</b>	<b>1.27</b>	<b>3.44</b>	<b>3.44</b>	<b>2.50</b>	<b>2.36</b>	<b>3.91</b>	<b>4.83</b>	<b>2.97</b>	<b>1.10</b>	<b>6.14</b>	<b>5.75</b>	<b>12/01/1995</b>
Disability Policy Benchmark	0.38	1.20	3.41	3.41	2.15	2.01	3.05	3.82	2.53	0.53	5.66	5.03	
Difference	-0.04	0.07	0.03	0.03	0.35	0.35	0.86	1.01	0.44	0.57	0.48	0.72	
<b>Wells Core (CF)</b>	<b>0.34</b>	<b>1.27</b>	<b>3.46</b>	<b>3.46</b>	<b>2.49</b>	<b>2.36</b>	<b>3.94</b>	<b>5.10</b>	<b>2.98</b>	<b>1.06</b>	<b>6.19</b>	<b>4.83</b>	<b>07/01/2004</b>
Bloomberg US Agg Bond Index	0.39	1.24	3.54	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	4.29	
Difference	-0.05	0.03	-0.08	-0.08	0.25	0.26	0.74	1.09	0.33	0.51	0.22	0.54	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.51	1.45	4.03	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	4.74	
Rank	90	77	87	87	63	59	32	15	57	27	47	40	
<b>Wells Core (CF) - Net</b>	<b>0.34</b>	<b>1.27</b>	<b>3.46</b>	<b>3.46</b>	<b>2.49</b>	<b>2.36</b>	<b>3.94</b>	<b>5.10</b>	<b>2.98</b>	<b>1.06</b>	<b>6.18</b>	<b>5.14</b>	<b>07/01/2004</b>
Bloomberg US Agg Bond Index	0.39	1.24	3.54	3.54	2.24	2.10	3.20	4.01	2.65	0.55	5.97	4.29	
Difference	-0.05	0.03	-0.08	-0.08	0.25	0.26	0.74	1.09	0.33	0.51	0.21	0.85	

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is gross of fees, except where noted. Performance is annualized for periods greater than one year. Fiscal year ends 06/30. Please see the Addendum for custom index descriptions.

# Composite and Manager Reviews

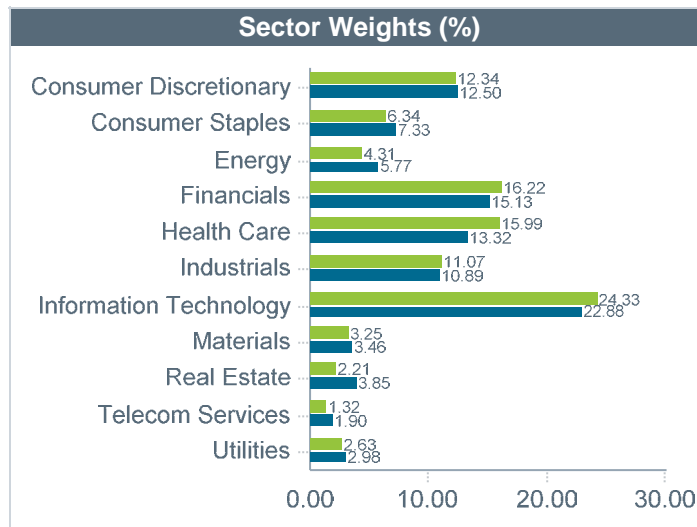
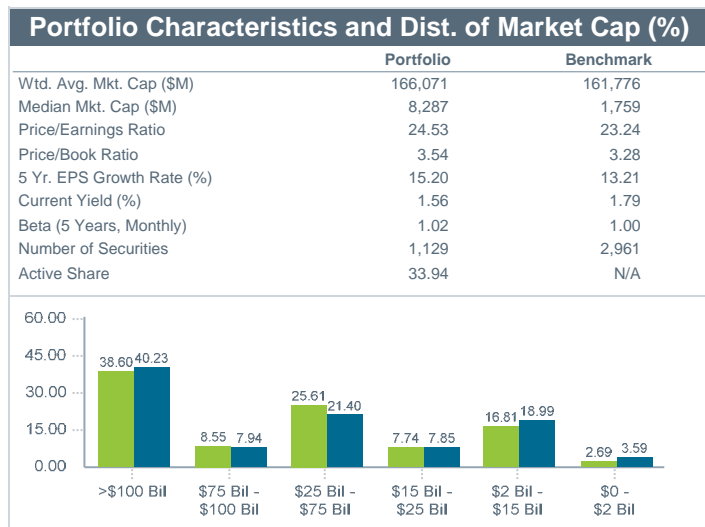
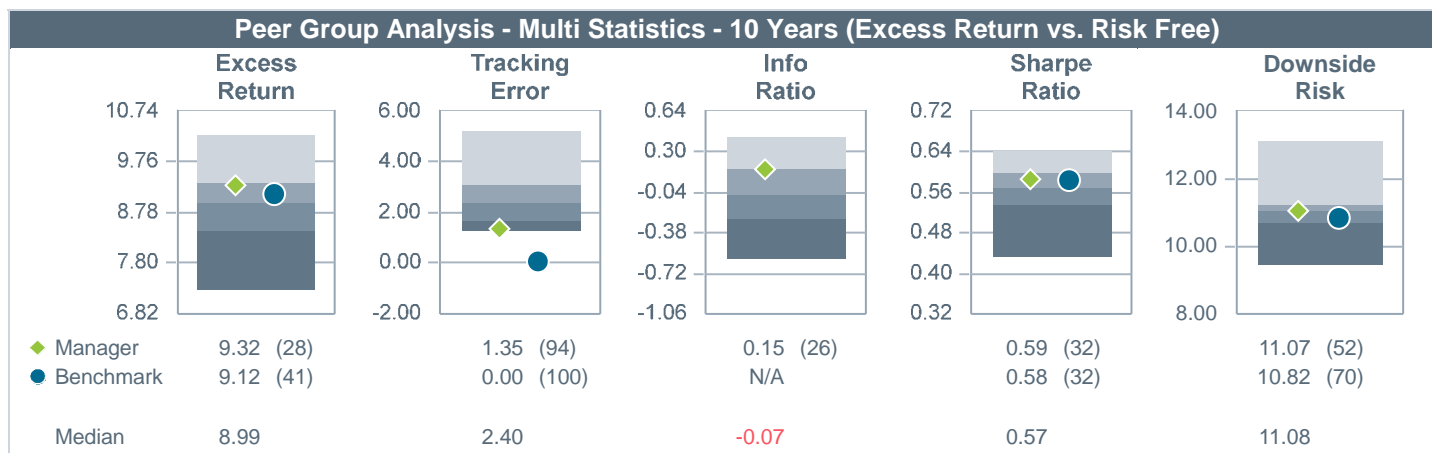
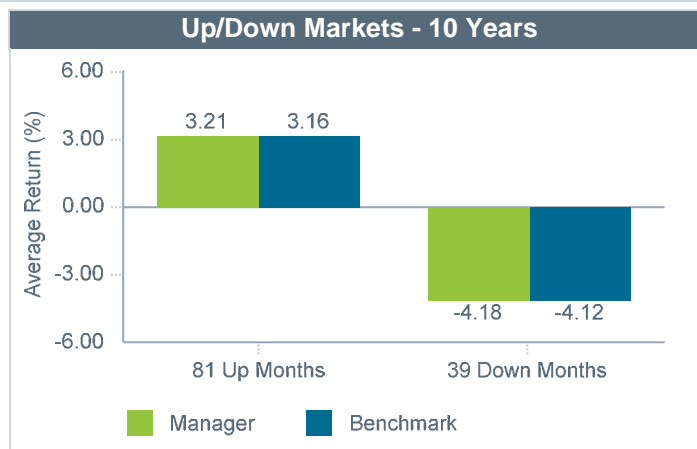
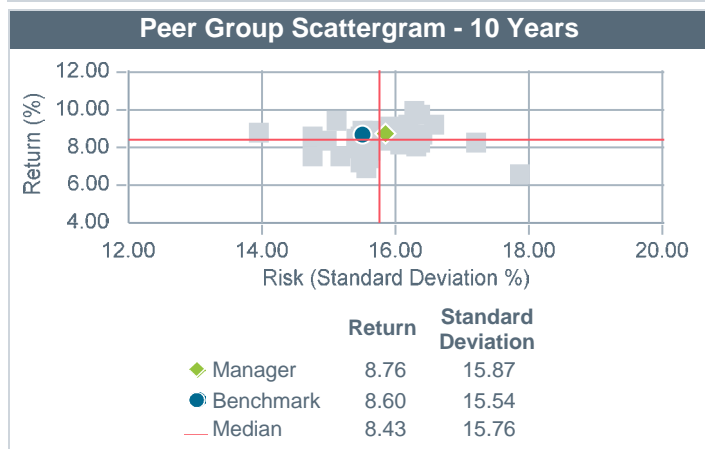
**Manager: Domestic Equity Composite - Retirement**

As of December 31, 2017

**Benchmark:** Russell 3000 (Blended) (R)

**Peer Group:** All Public Plans-US Equity Segment

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.25	23.44	12.02	16.57	13.99	8.76	11.68	1.96	11.82	36.97	17.00
Benchmark	6.34	21.13	11.12	15.58	13.50	8.60	12.74	0.48	12.56	33.55	16.42
Difference	-0.09	2.31	0.90	0.99	0.49	0.16	-1.06	1.48	-0.74	3.42	0.58
Peer Group Median	6.01	20.32	10.86	15.20	13.04	8.43	12.87	0.14	11.41	33.73	16.60
Rank	37	8	5	2	7	28	75	9	34	5	28
Population	98	93	88	75	63	40	98	83	49	47	43



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

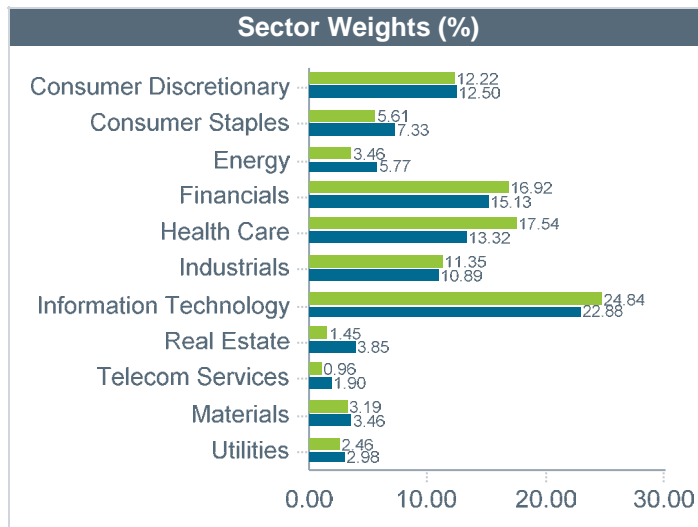
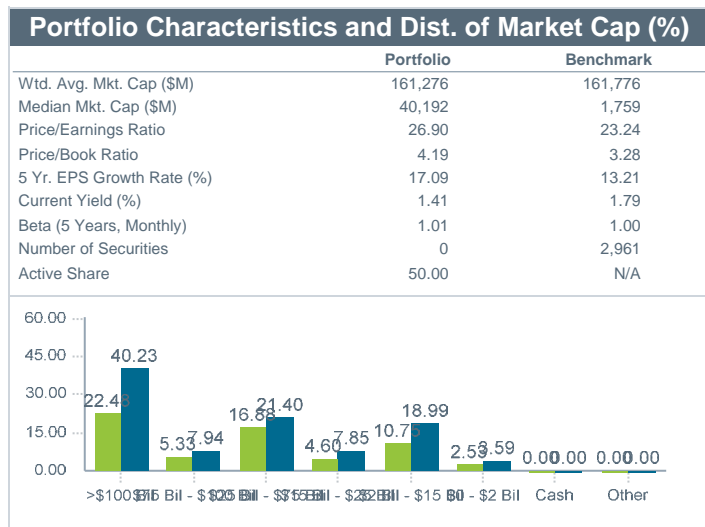
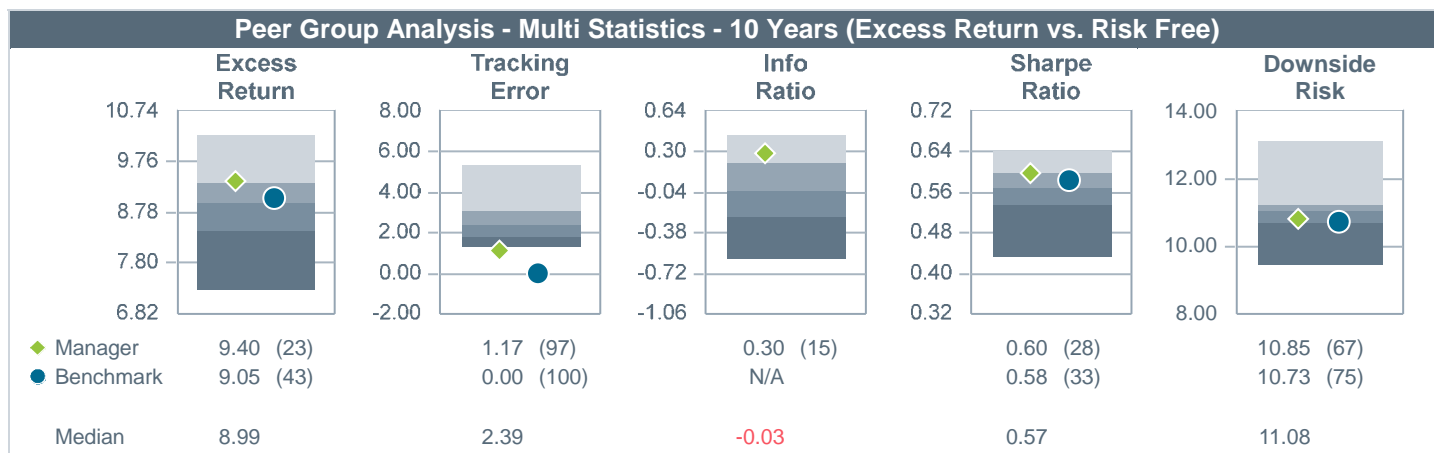
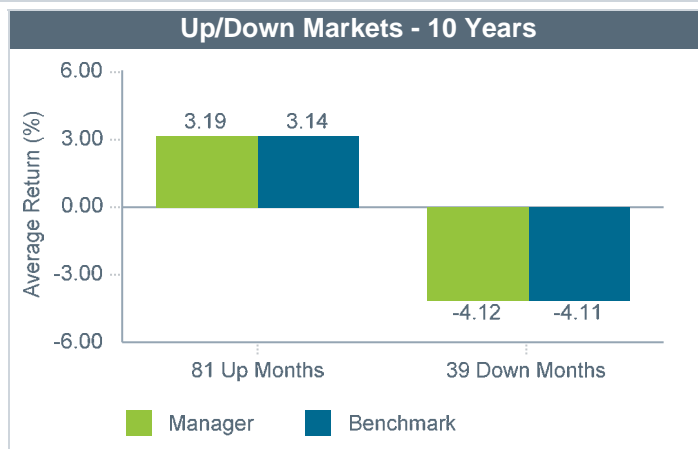
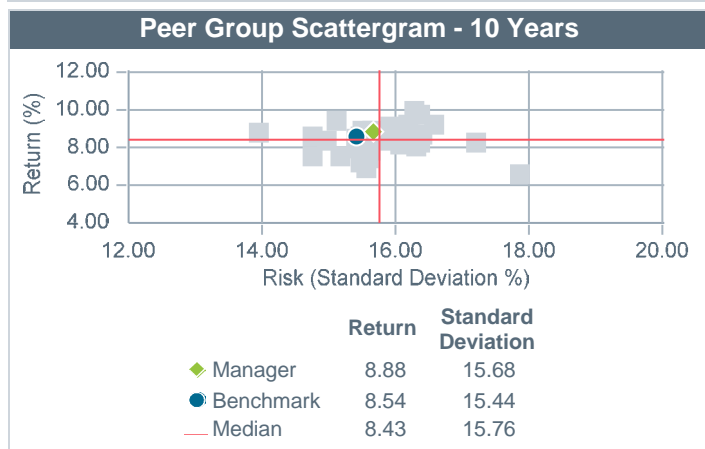
**Manager: Domestic Equity Composite - Health**

As of December 31, 2017

**Benchmark:** Russell 3000 (Blended) (H)

**Peer Group:** All Public Plans-US Equity Segment

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.27	23.37	12.00	16.56	14.06	8.88	11.67	1.99	11.88	36.87	16.98
Benchmark	6.34	21.13	11.12	15.58	13.50	8.54	12.74	0.48	12.56	33.55	16.42
Difference	-0.07	2.24	0.88	0.98	0.56	0.34	-1.07	1.51	-0.68	3.32	0.56
Peer Group Median	6.01	20.32	10.86	15.20	13.04	8.43	12.87	0.14	11.41	33.73	16.60
Rank	35	8	5	3	6	24	76	8	33	6	29
Population	98	93	88	75	63	40	98	83	49	47	43



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.



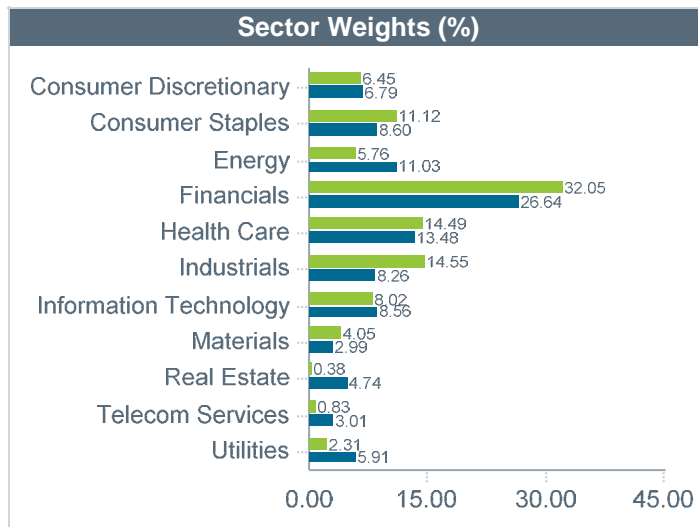
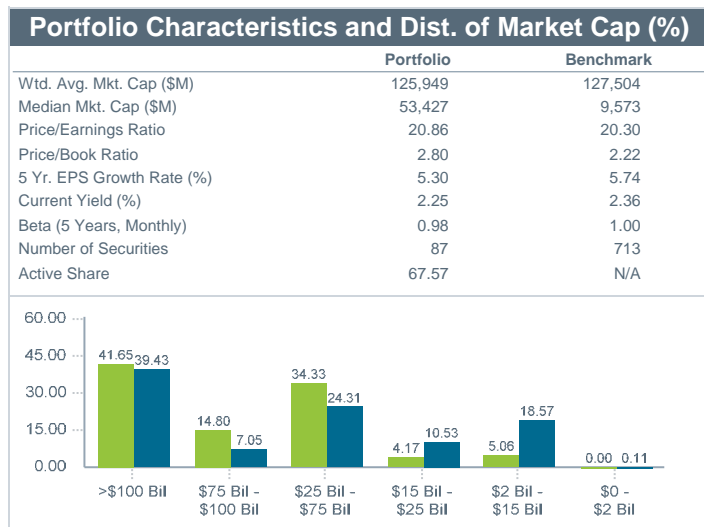
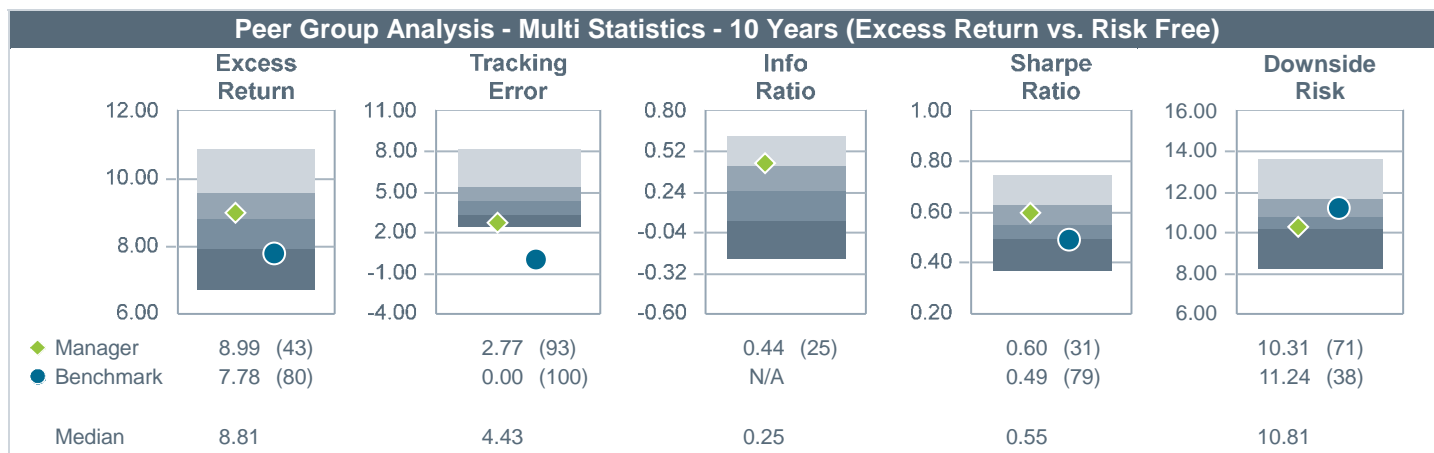
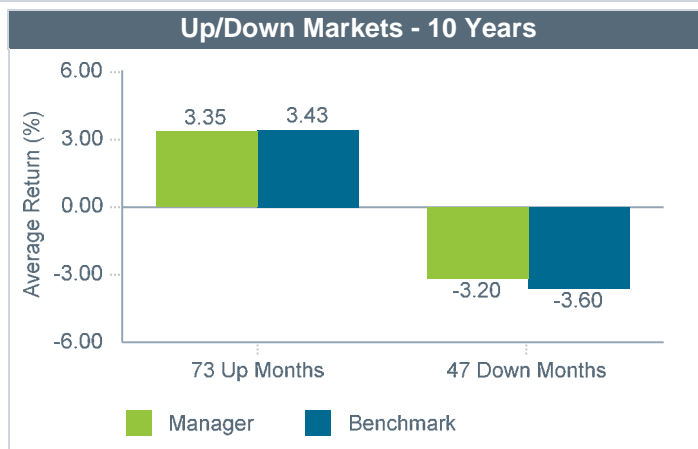
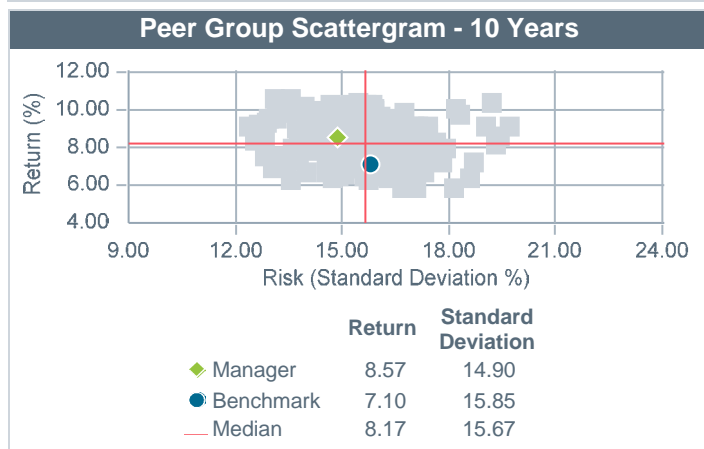
Manager: MFS Large Cap Value (SA)

As of December 31, 2017

Benchmark: Russell 1000 Val Index

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.18	17.82	10.89	15.78	13.63	8.57	15.80	-0.06	11.86	36.41	16.69
Benchmark	5.33	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	32.53	17.51
Difference	-0.15	4.16	2.24	1.74	1.17	1.47	-1.54	3.77	-1.59	3.88	-0.82
Peer Group Median	6.29	17.24	9.80	14.83	13.01	8.18	14.58	-2.28	12.22	34.27	15.66
Rank	78	45	25	30	33	38	39	28	56	34	38
Population	326	326	318	307	292	262	361	379	404	406	427

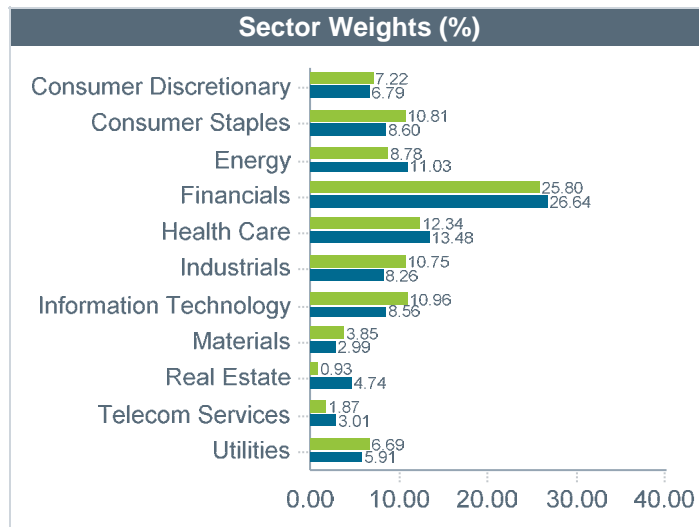
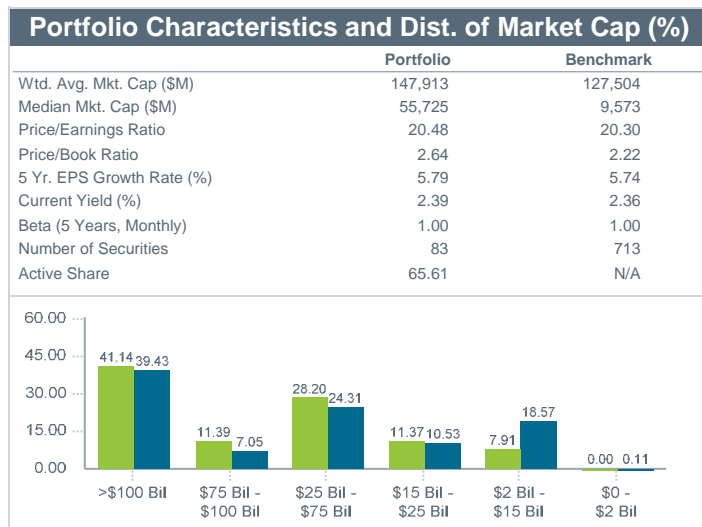
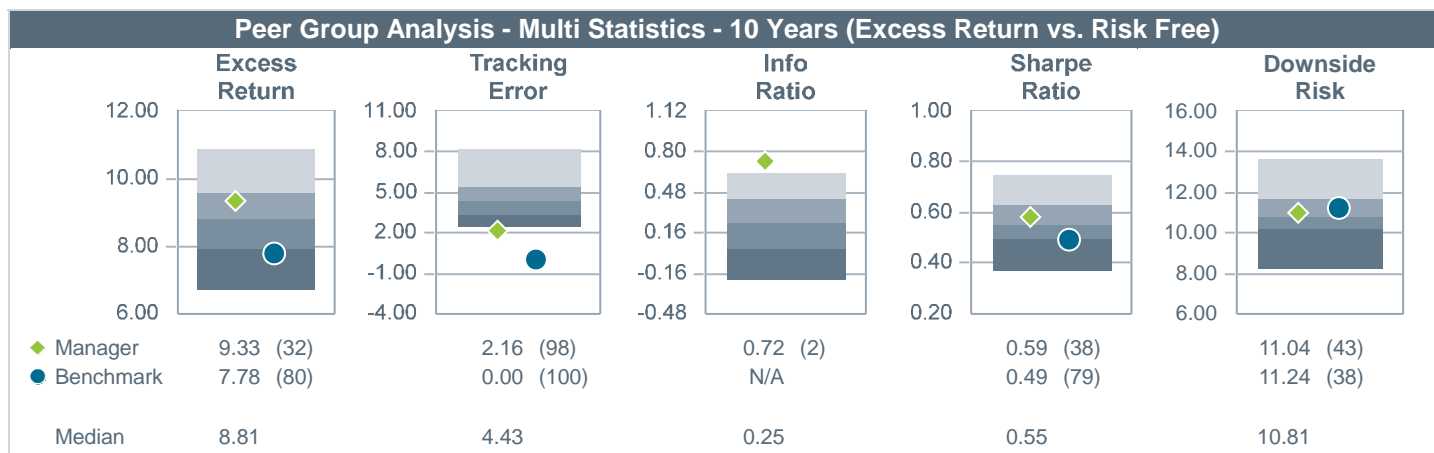
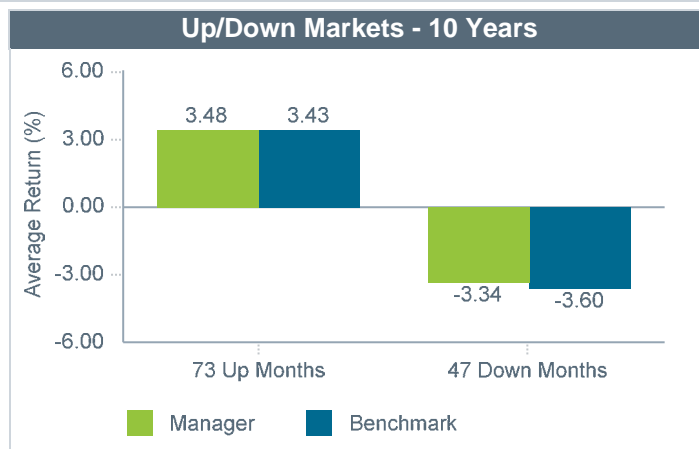
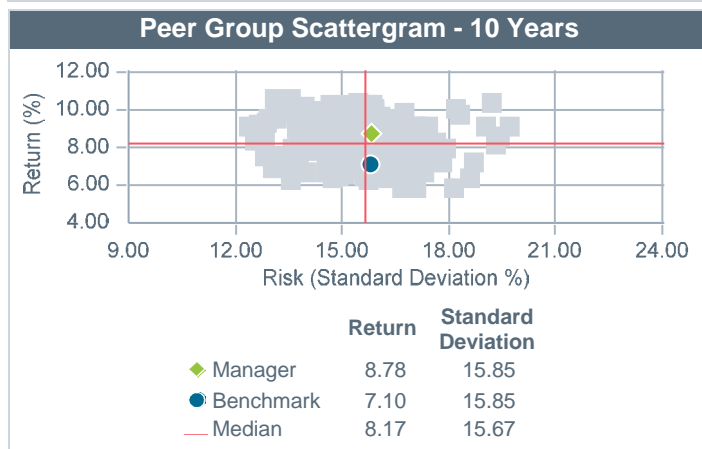


Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

**Manager:** T. Rowe Price Large Cap Value (SA)  
**Benchmark:** Russell 1000 Val Index  
**Peer Group:** IM U.S. Large Cap Value Equity (SA+CF)

As of December 31, 2017

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.41	16.74	10.29	15.54	13.63	8.78	17.14	-1.90	13.43	35.32	18.13
Benchmark	5.33	13.66	8.65	14.04	12.46	7.10	17.34	-3.83	13.45	32.53	17.51
Difference	0.08	3.08	1.64	1.50	1.17	1.68	-0.20	1.93	-0.02	2.79	0.62
Peer Group Median	6.29	17.24	9.80	14.83	13.01	8.18	14.58	-2.28	12.22	34.27	15.66
Rank	74	58	42	34	33	36	26	46	35	42	25
Population	326	326	318	307	292	262	361	379	404	406	427



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.



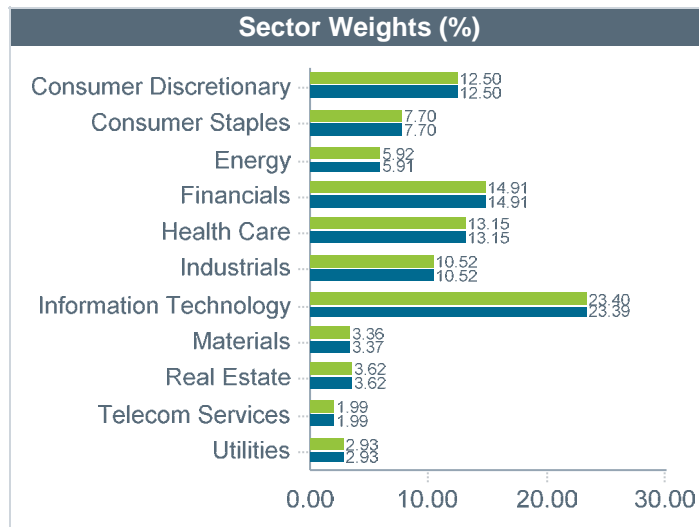
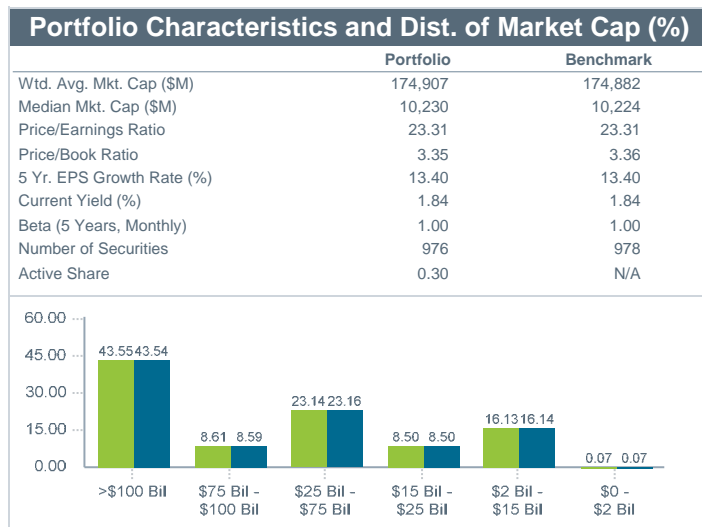
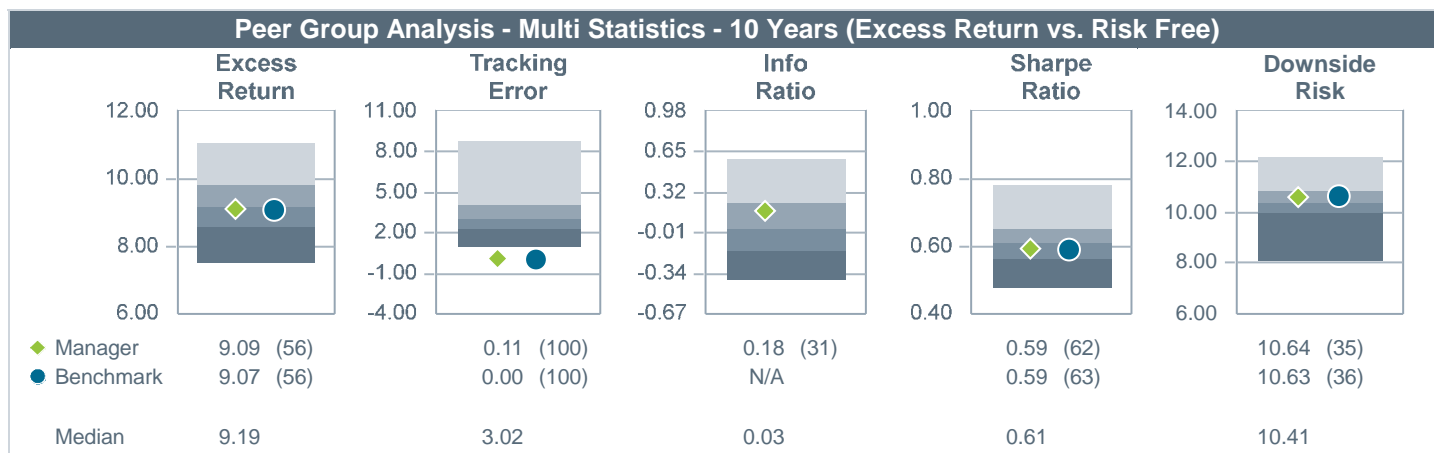
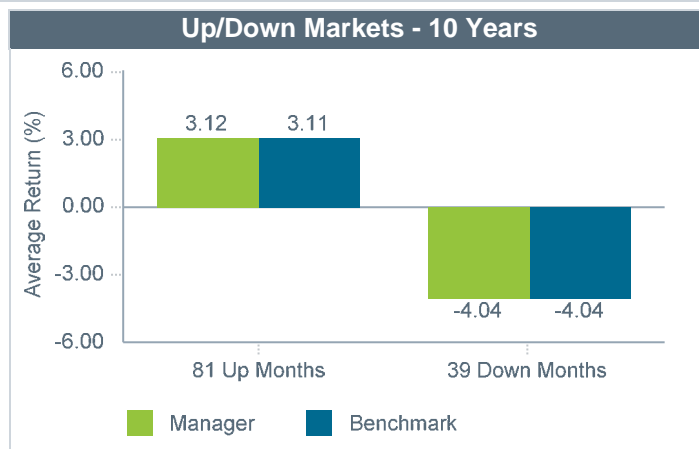
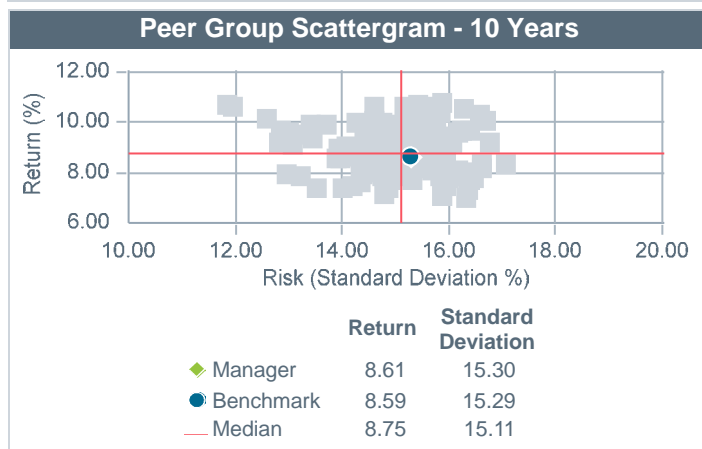
**Manager:** BlackRock Russell 1000 Index (CF)

**As of December 31, 2017**

**Benchmark:** Russell 1000 Index

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
<b>Manager</b>	<b>6.59</b>	<b>21.70</b>	<b>11.25</b>	<b>15.74</b>	<b>13.67</b>	<b>8.61</b>	<b>12.09</b>	<b>0.94</b>	<b>13.27</b>	<b>33.16</b>	<b>16.51</b>
Benchmark	6.59	21.69	11.23	15.71	13.66	8.59	12.05	0.92	13.24	33.11	16.42
Difference	0.00	0.01	0.02	0.03	0.01	0.02	0.04	0.02	0.03	0.05	0.09
Peer Group Median	6.68	21.82	11.15	15.75	13.74	8.75	10.49	1.39	13.43	32.98	15.70
Rank	56	52	45	51	53	56	30	56	52	49	40
Population	266	265	261	248	227	208	296	314	336	354	361



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

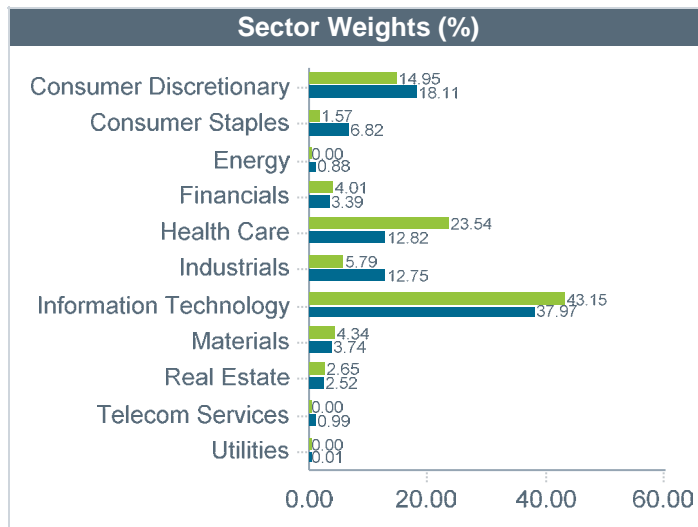
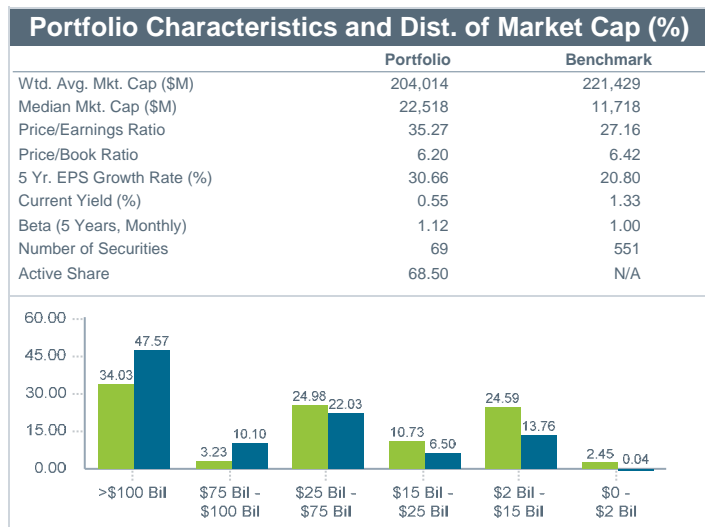
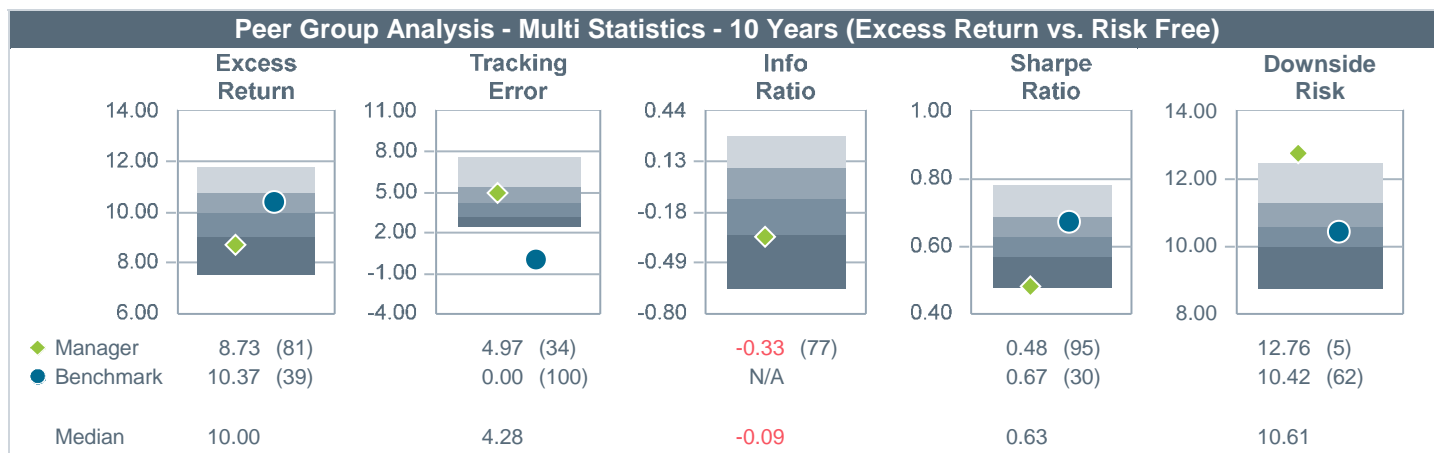
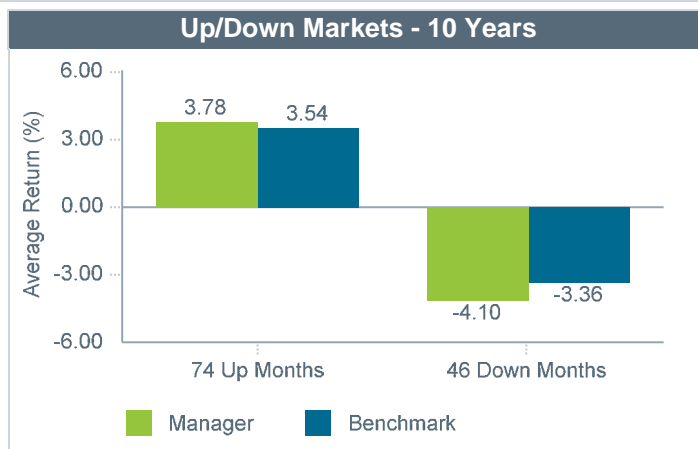
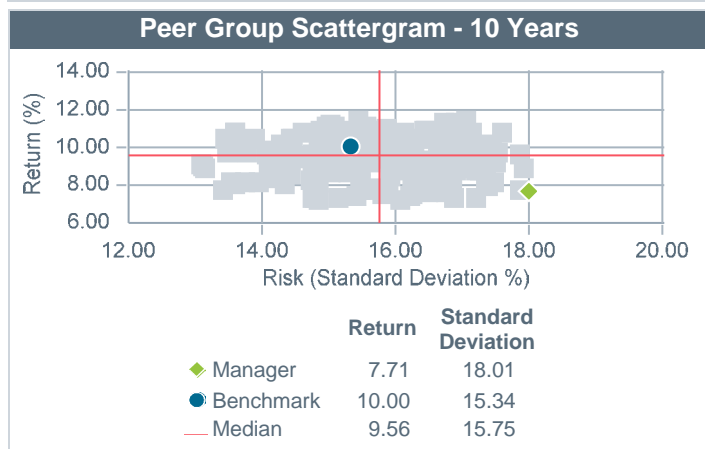
**Manager: Fred Alger Large Cap Growth (SA)**

**As of December 31, 2017**

**Benchmark: Russell 1000 Grth Index**

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.10	29.32	9.71	15.17	12.21	7.71	0.38	1.73	11.75	37.29	15.31
Benchmark	7.86	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	33.48	15.26
Difference	-2.76	-0.89	-4.08	-2.16	-2.60	-2.29	-6.70	-3.94	-1.30	3.81	0.05
Peer Group Median	6.92	28.16	12.14	16.53	13.93	9.55	4.65	4.93	11.90	34.52	15.19
Rank	85	42	85	76	87	86	85	77	54	26	49
Population	270	270	265	253	243	228	306	334	344	351	365



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.



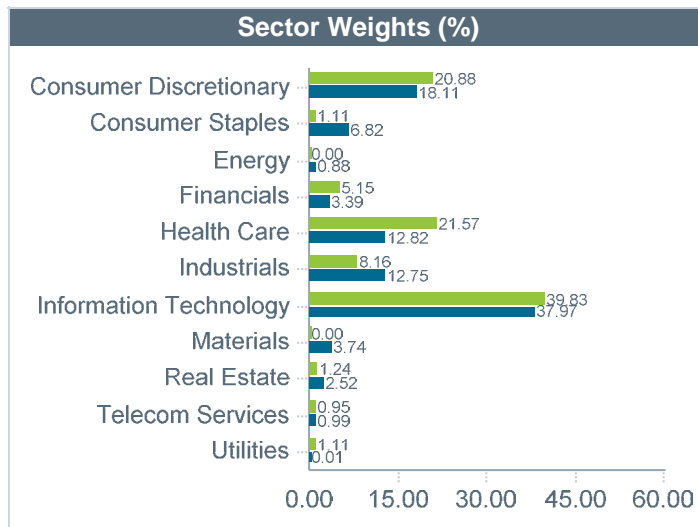
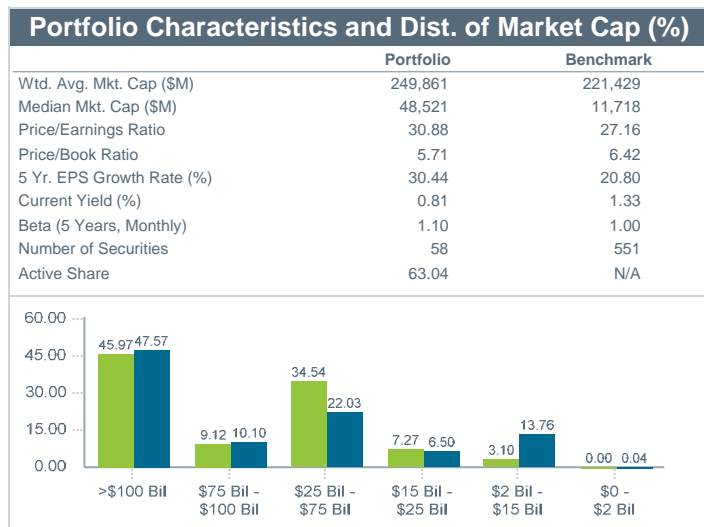
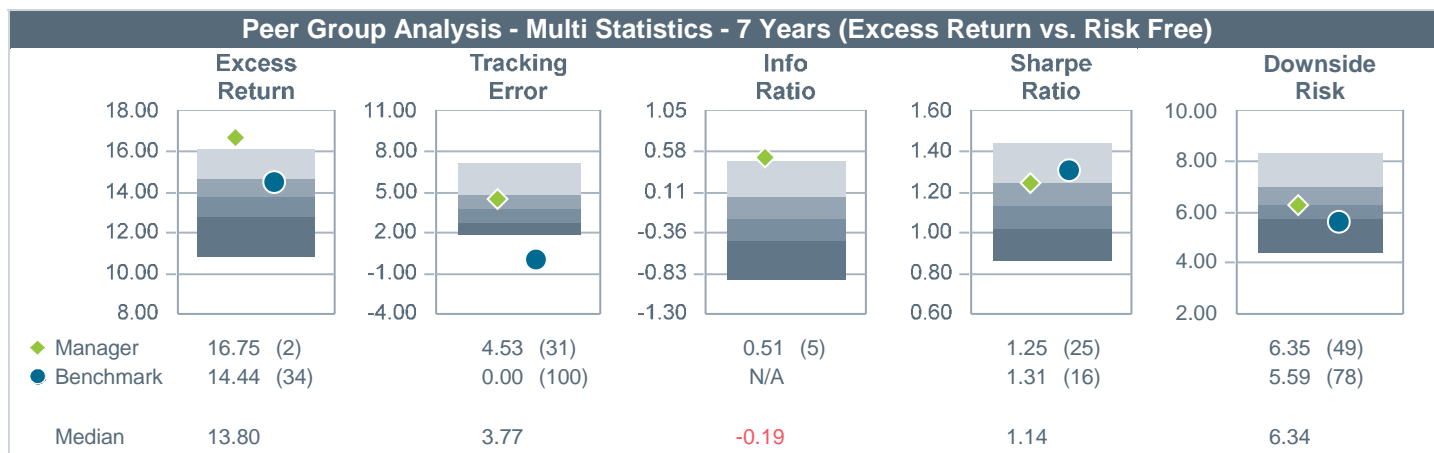
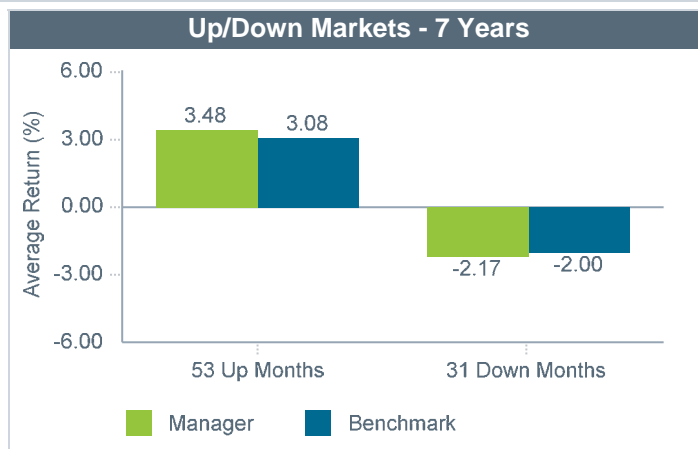
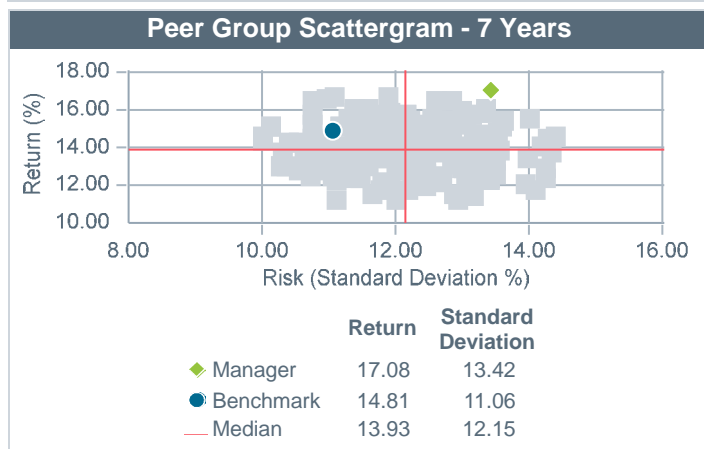
Manager: T. Rowe Price Large Cap Growth (SA)

As of December 31, 2017

Benchmark: Russell 1000 Grth Index

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	7.84	36.61	17.57	20.77	17.08	N/A	5.78	12.48	9.31	44.58	19.84
Benchmark	7.86	30.21	13.79	17.33	14.81	10.00	7.08	5.67	13.05	33.48	15.26
Difference	-0.02	6.40	3.78	3.44	2.27	N/A	-1.30	6.81	-3.74	11.10	4.58
Peer Group Median	6.92	28.16	12.14	16.53	13.93	9.55	4.65	4.93	11.90	34.52	15.19
Rank	23	6	1	2	3	N/A	41	7	80	5	13
Population	270	270	265	253	243	228	306	334	344	351	365



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parenthesis contain percentile ranks.

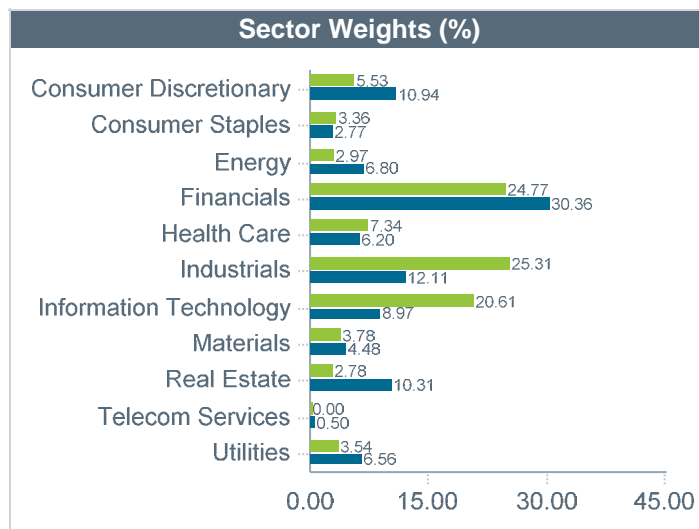
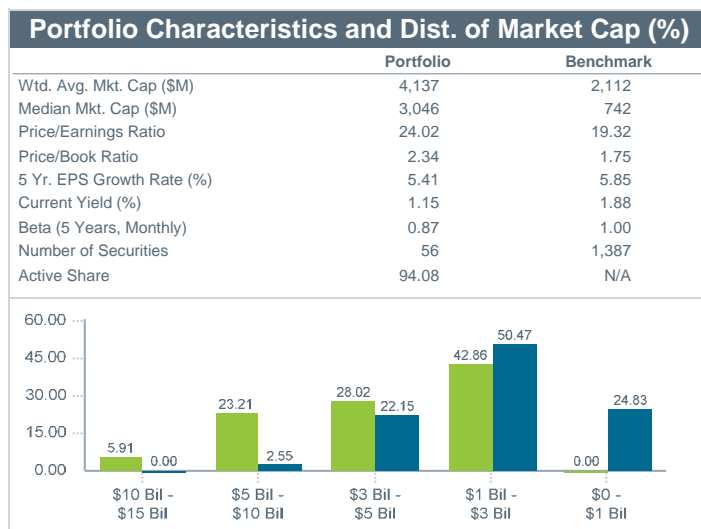
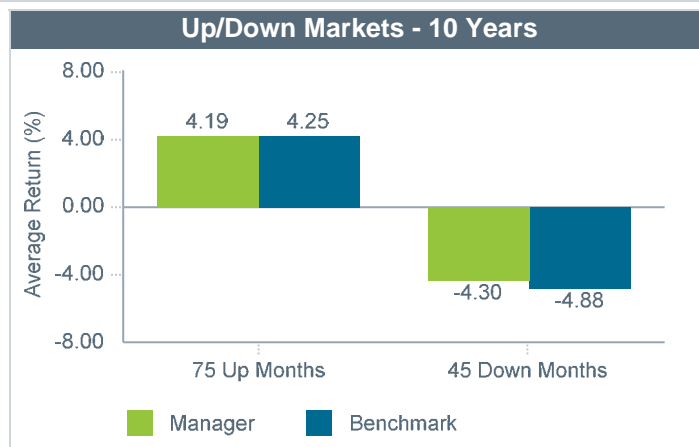
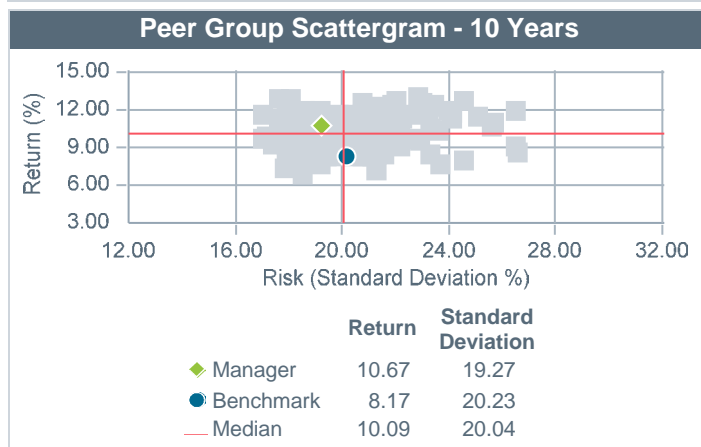
**Manager: Earnest Partners Small Cap Value (SA)**

As of December 31, 2017

**Benchmark:** Russell 2000 Val Index

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.76	23.07	14.49	17.70	15.09	10.67	24.79	-2.28	11.11	35.47	15.46
Benchmark	2.05	7.84	9.55	13.01	10.84	8.17	31.74	-7.47	4.22	34.52	18.05
Difference	4.71	15.23	4.94	4.69	4.25	2.50	-6.95	5.19	6.89	0.95	-2.59
Peer Group Median	3.70	11.58	10.52	14.57	12.58	10.09	26.10	-4.30	5.71	38.07	17.49
Rank	8	4	4	5	6	38	58	30	6	73	67
Population	216	216	210	202	191	173	227	237	249	251	259



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



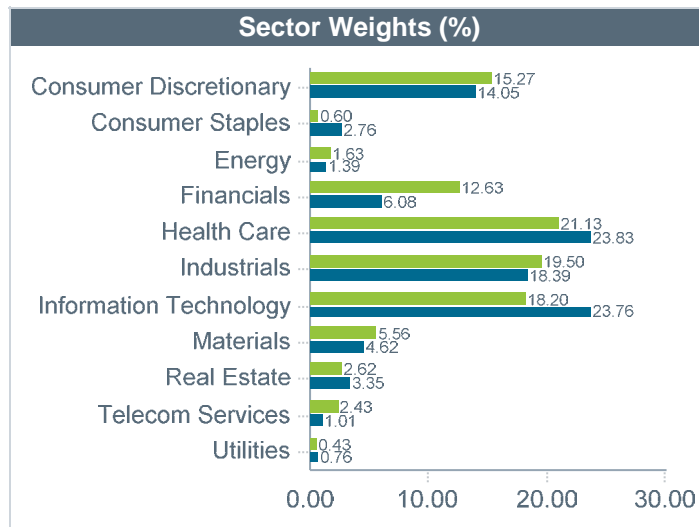
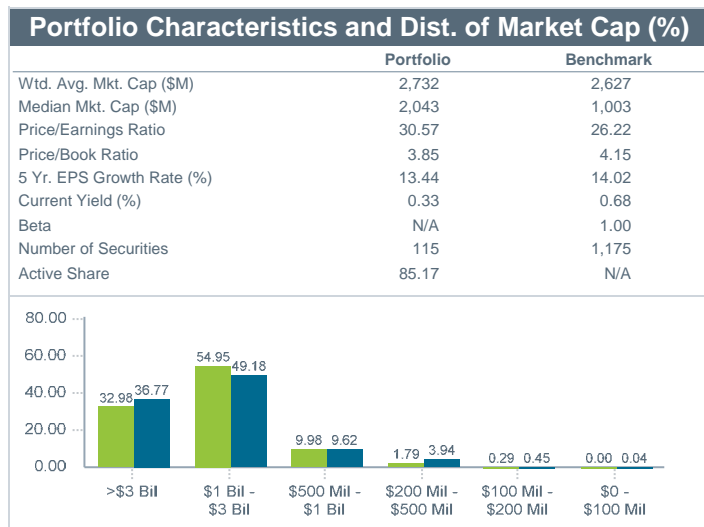
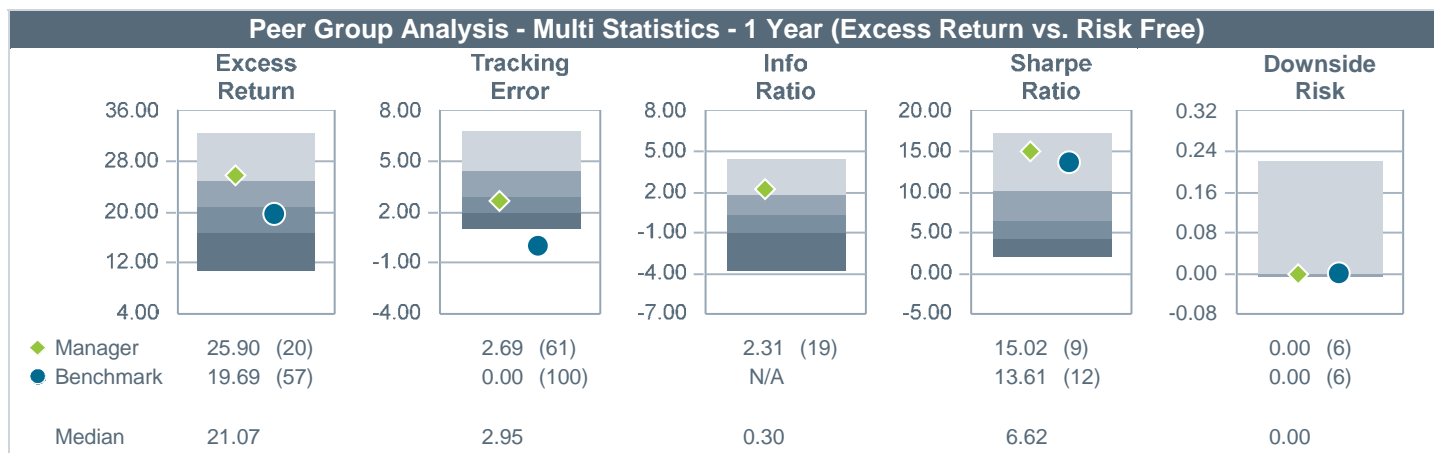
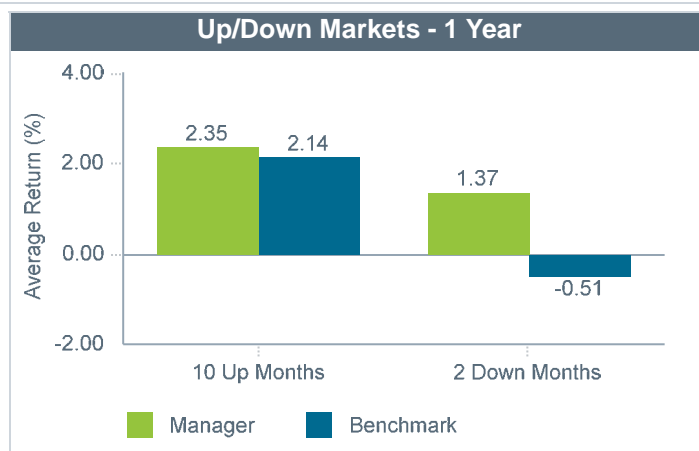
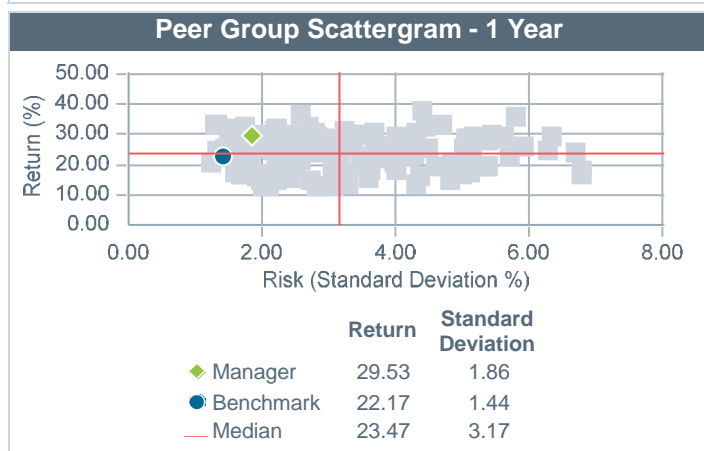
**Manager:** Emerald Small Cap Growth (SA)

**As of December 31, 2017**

**Benchmark:** Russell 2000 Grth Index

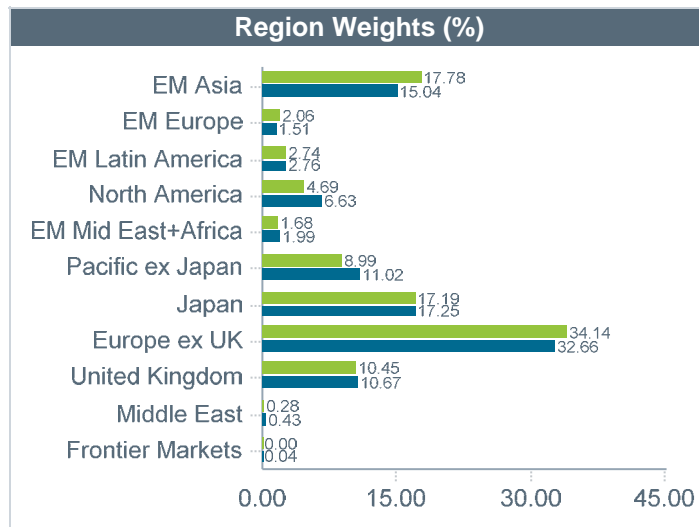
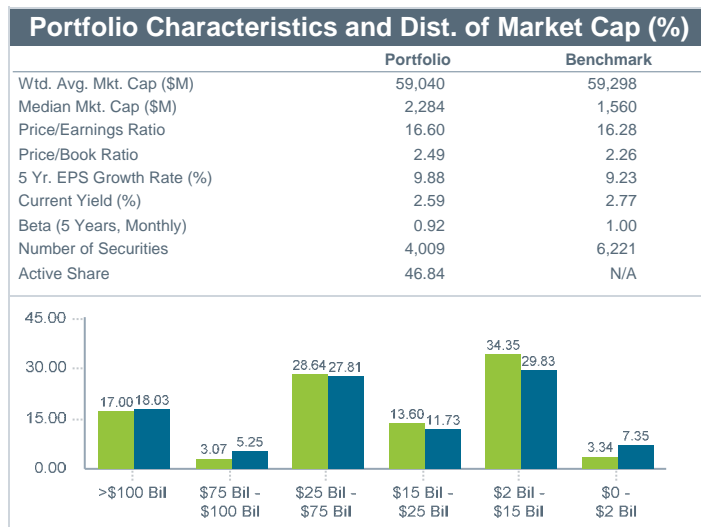
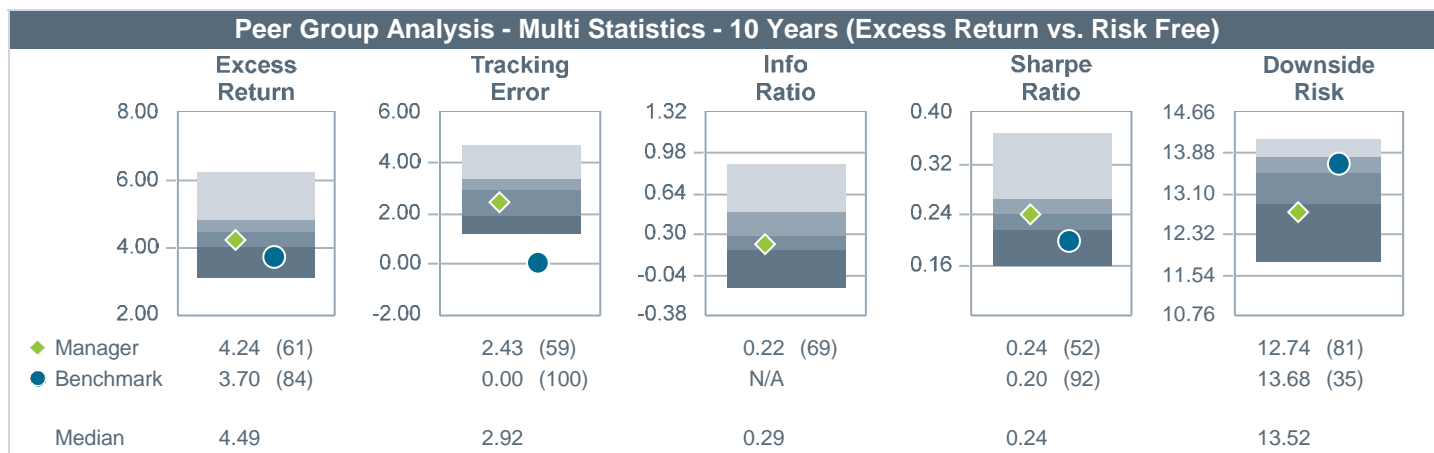
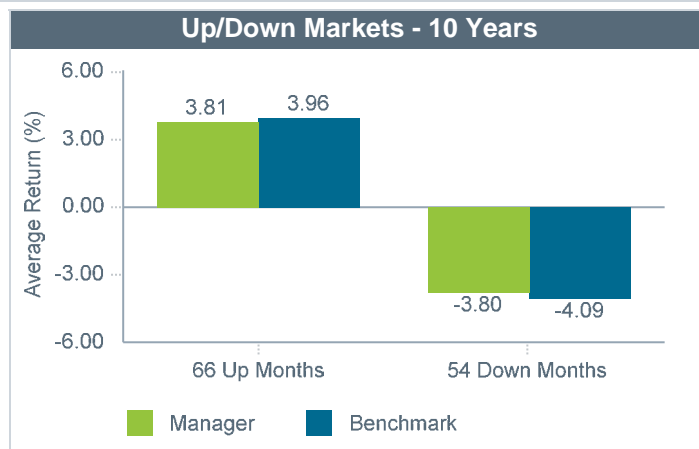
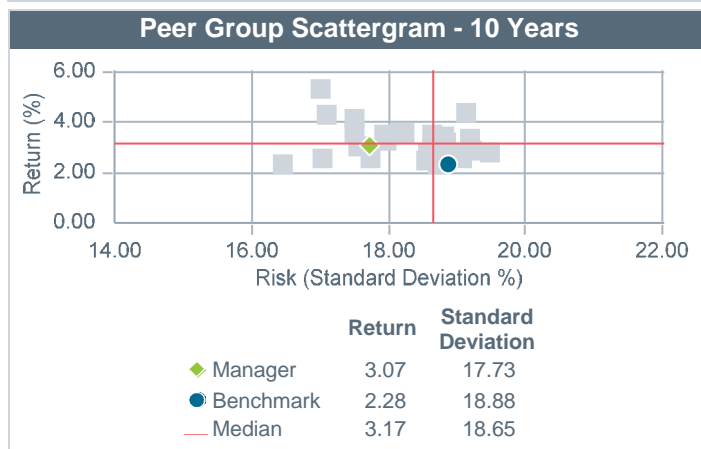
**Peer Group:** IM U.S. Small Cap Growth Equity (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	7.94	29.53	N/A	N/A	N/A	N/A	10.02	N/A	N/A	N/A	N/A
Benchmark	4.59	22.17	10.28	15.21	12.34	9.19	11.32	-1.38	5.60	43.30	14.59
Difference	3.35	7.36	N/A	N/A	N/A	N/A	-1.30	N/A	N/A	N/A	N/A
Peer Group Median	4.84	23.47	11.51	15.80	13.16	9.52	11.40	-0.74	4.08	45.45	14.72
Rank	7	19	N/A	N/A	N/A	N/A	59	N/A	N/A	N/A	N/A
Population	172	171	167	162	157	142	185	204	214	220	228



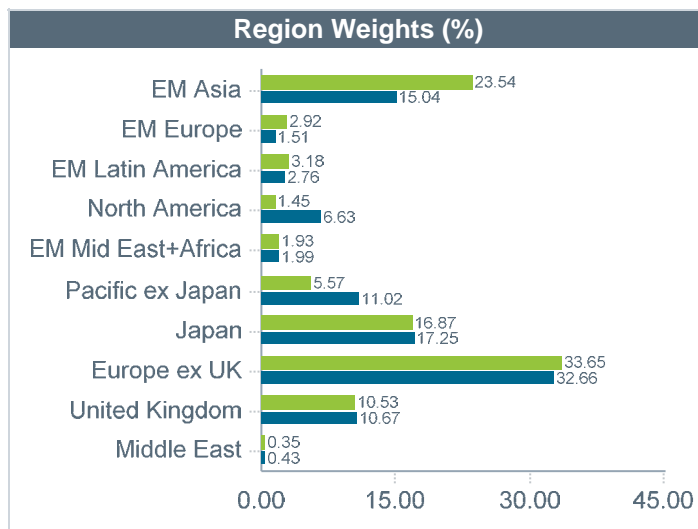
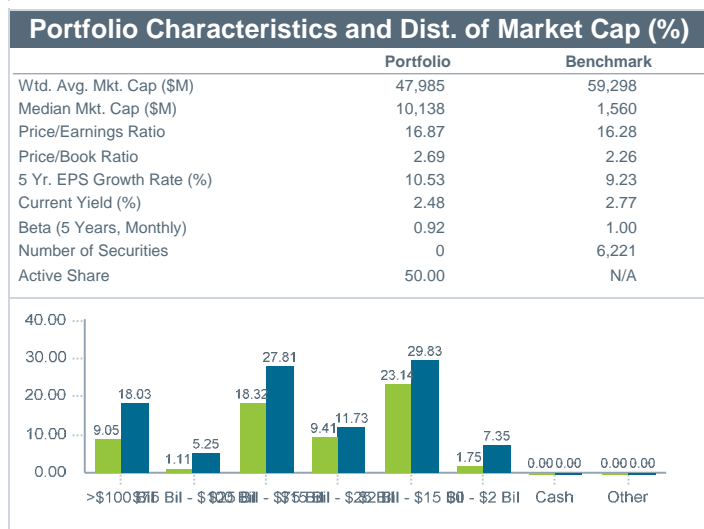
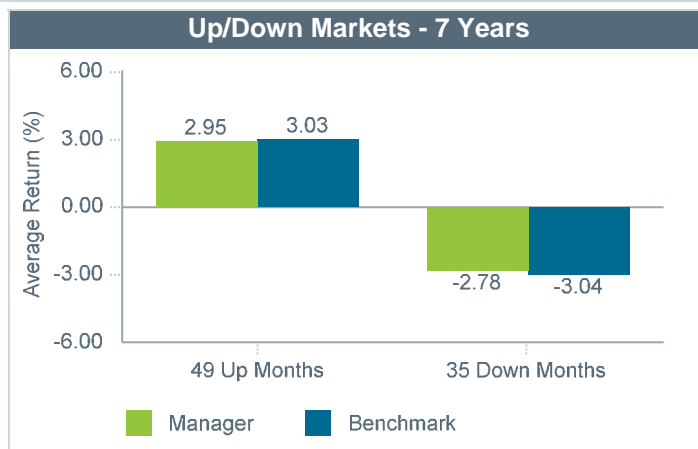
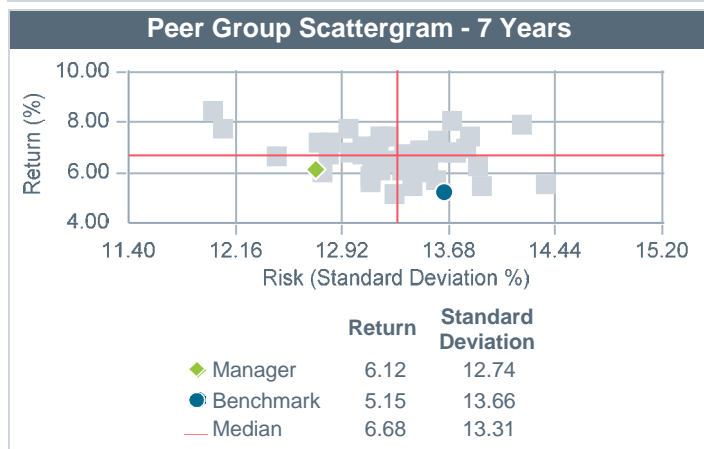
Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Beta Calculation requires three years of performance history.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.22	29.34	9.55	9.14	6.10	3.07	3.09	-1.39	-1.15	19.16	13.94
Benchmark	5.23	27.81	8.38	7.22	5.15	2.28	4.41	-4.60	-3.89	15.82	17.04
Difference	-0.01	1.53	1.17	1.92	0.95	0.79	-1.32	3.21	2.74	3.34	-3.10
Peer Group Median	4.93	28.59	9.06	8.40	6.68	3.17	3.97	-2.54	-2.99	18.71	18.95
Rank	34	37	38	23	72	53	68	29	21	45	100
Population	95	90	83	70	54	36	92	77	46	43	38



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.24	29.29	9.52	9.06	6.12	N/A	3.06	-1.40	-1.14	18.81	12.69
Benchmark	5.23	27.81	8.38	7.22	5.15	2.20	4.41	-4.60	-3.89	15.82	17.04
Difference	0.01	1.48	1.14	1.84	0.97	N/A	-1.35	3.20	2.75	2.99	-4.35
Peer Group Median	4.93	28.59	9.06	8.40	6.68	3.17	3.97	-2.54	-2.99	18.71	18.95
Rank	34	39	39	26	71	N/A	68	29	21	50	100
Population	95	90	83	70	54	36	92	77	46	43	38



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

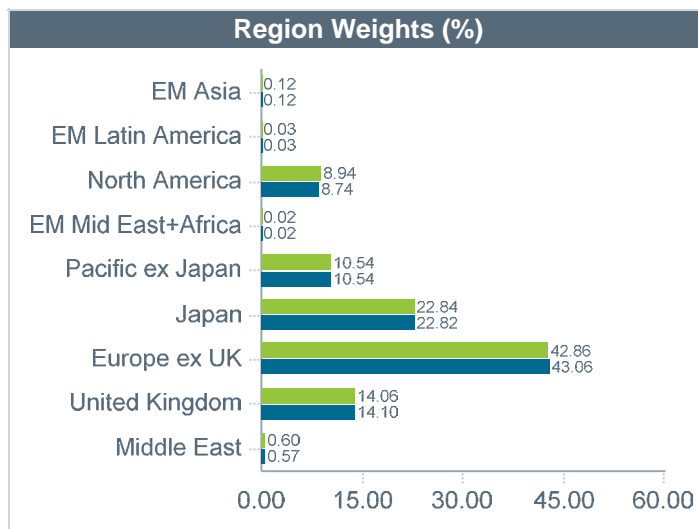
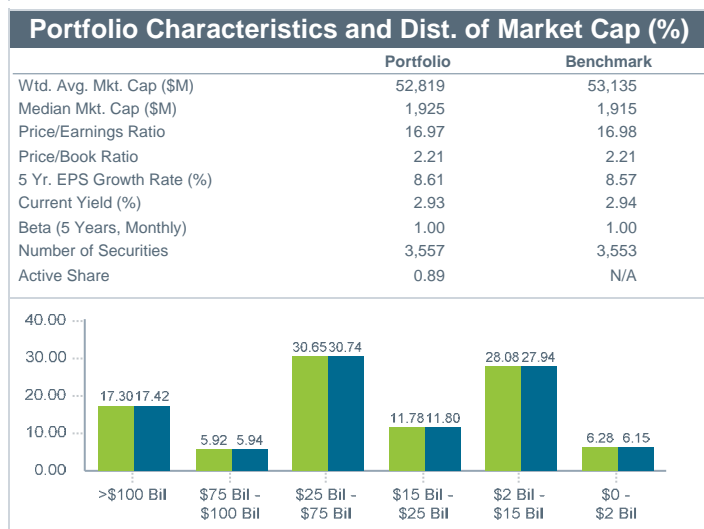
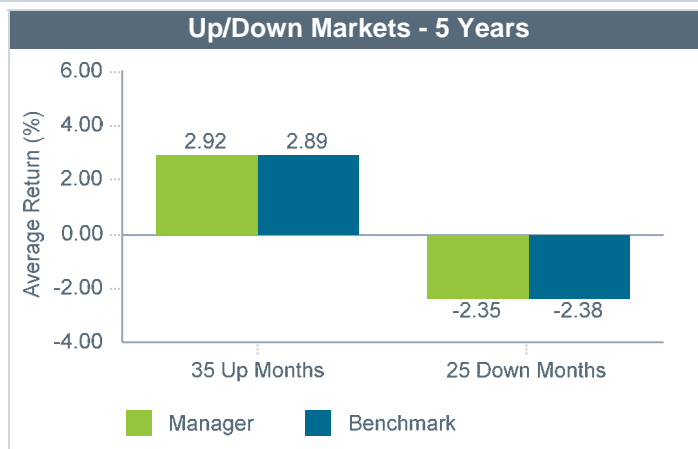
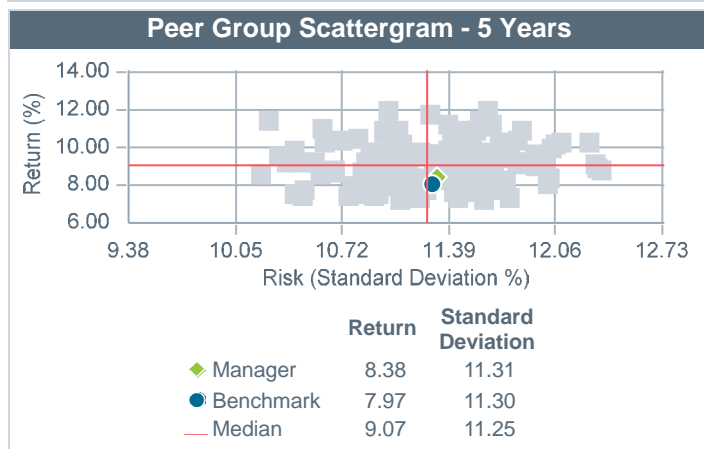
**Manager: BlackRock Developed Int'l - Passive (CF)**

**As of December 31, 2017**

**Benchmark: MSCI Wld Ex US IM Index (USD) (Net)**

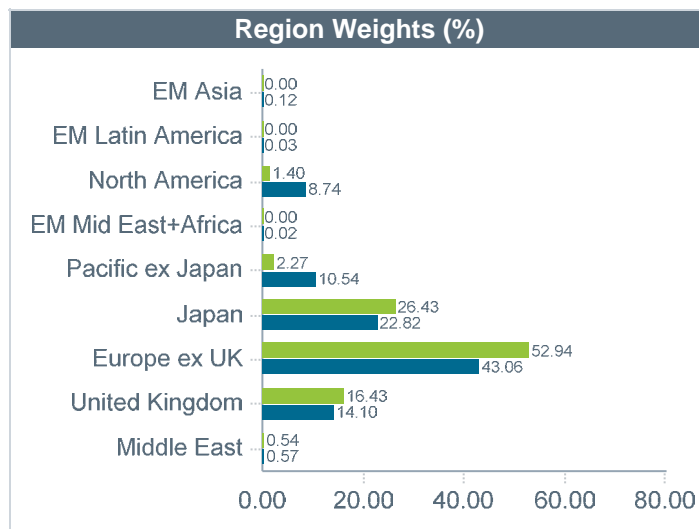
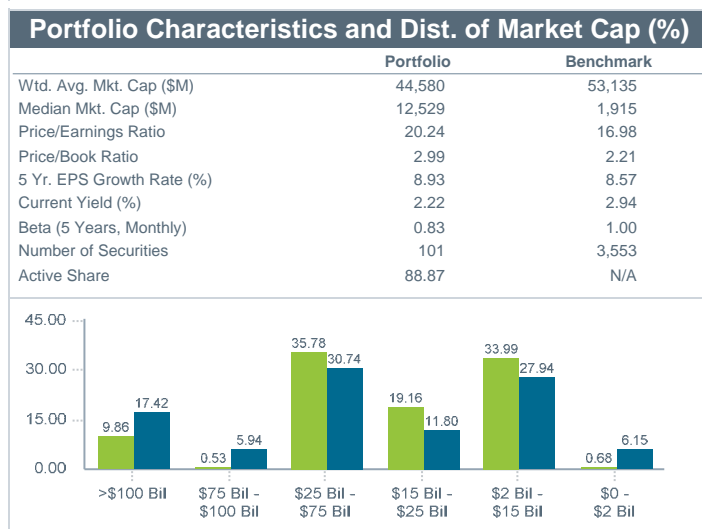
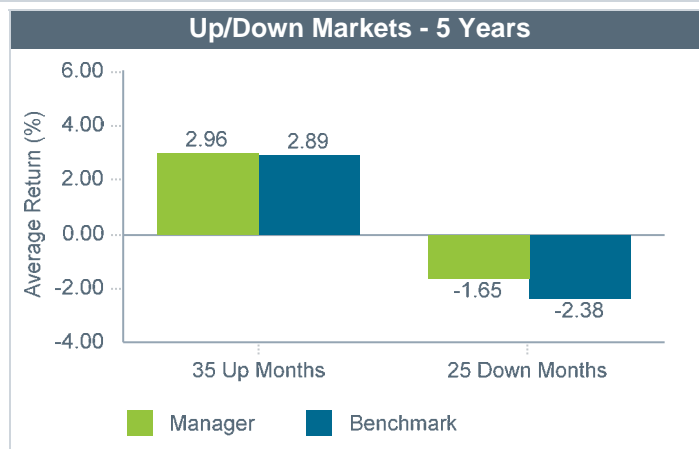
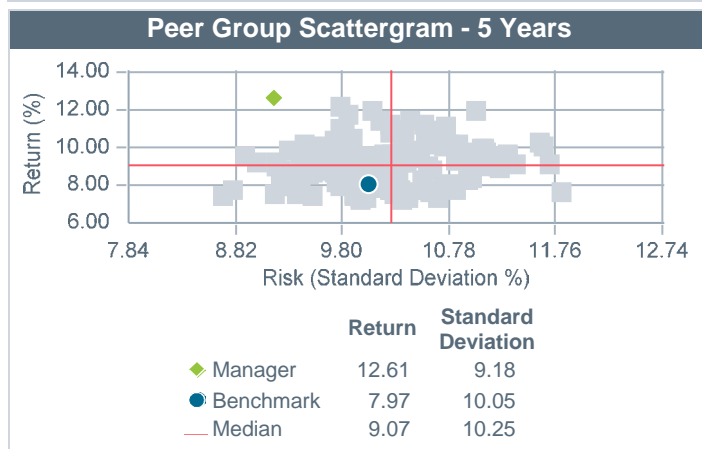
**Peer Group: IM All EAFE (SA+CF)**

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	4.51	25.71	8.56	8.38	N/A	N/A	3.45	-1.62	-4.13	21.90	N/A
Benchmark	4.46	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	21.57	16.55
Difference	0.05	0.54	0.45	0.41	N/A	N/A	0.50	0.33	0.32	0.33	N/A
Peer Group Median	4.19	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	24.18	19.66
Rank	34	60	58	66	N/A	N/A	21	75	50	71	N/A
Population	179	179	178	171	165	149	196	212	209	203	200



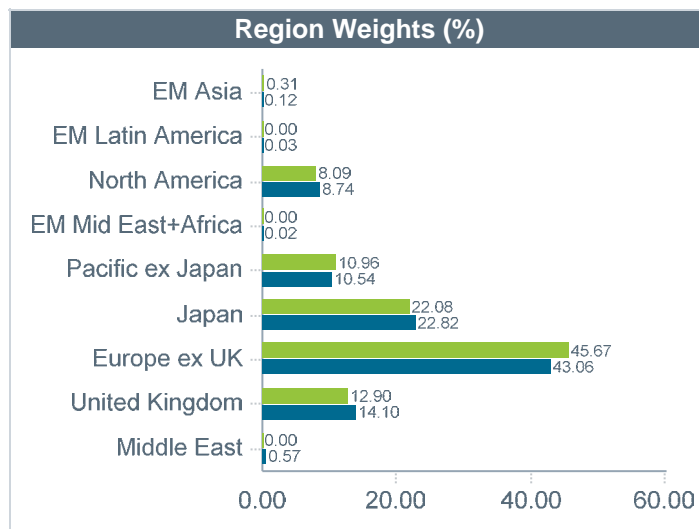
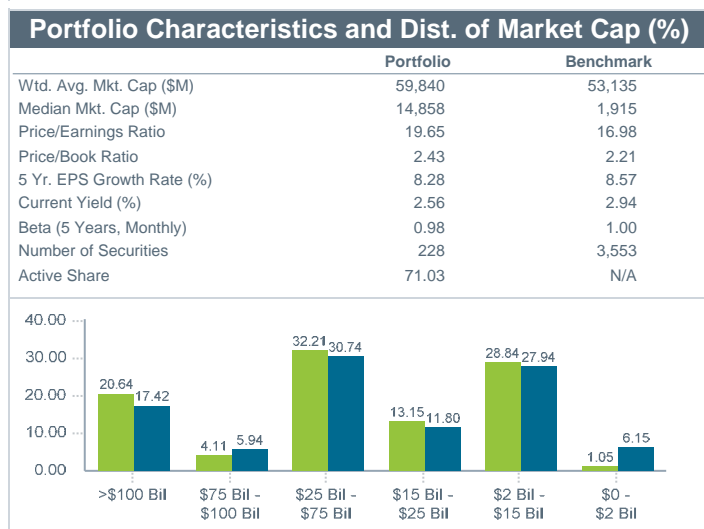
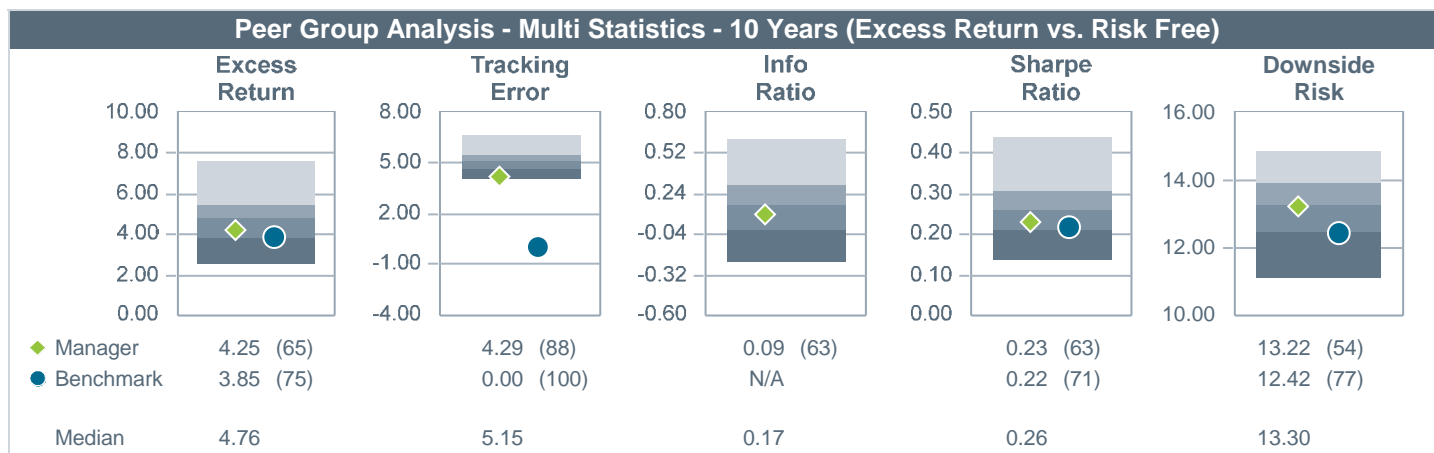
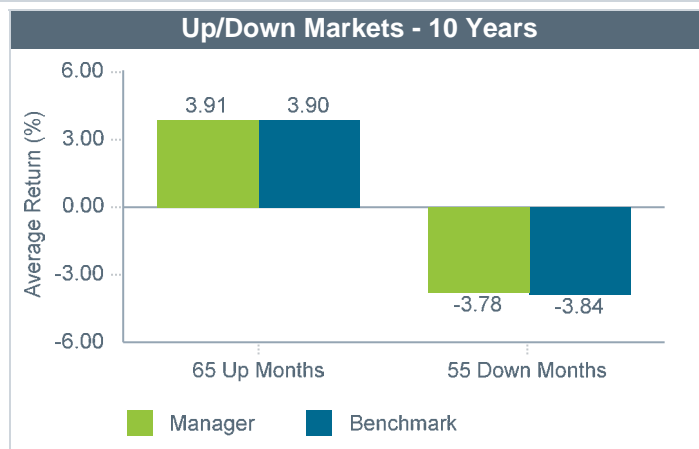
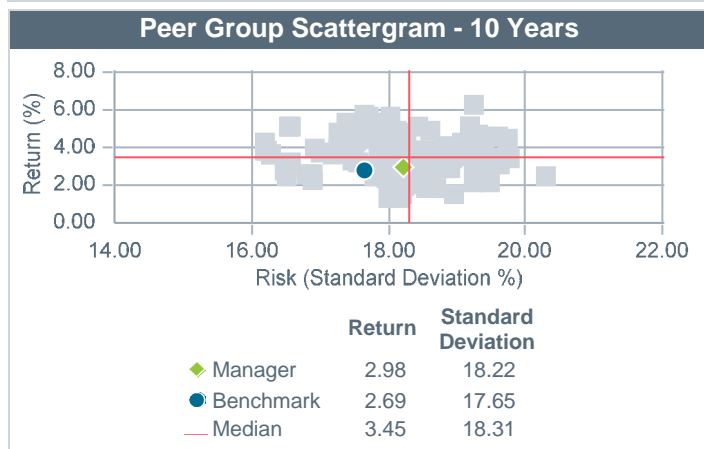
Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.00	27.13	10.78	12.61	N/A	N/A	-0.22	7.17	1.31	31.52	N/A
Benchmark	4.46	25.17	8.11	7.97	5.90	2.28	2.95	-1.95	-4.45	21.57	16.55
Difference	1.54	1.96	2.67	4.64	N/A	N/A	-3.17	9.12	5.76	9.95	N/A
Peer Group Median	4.19	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	24.18	19.66
Rank	9	42	17	5	N/A	N/A	69	6	6	7	N/A
Population	179	179	178	171	165	149	196	212	209	203	200



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parenthesis contain percentile ranks.

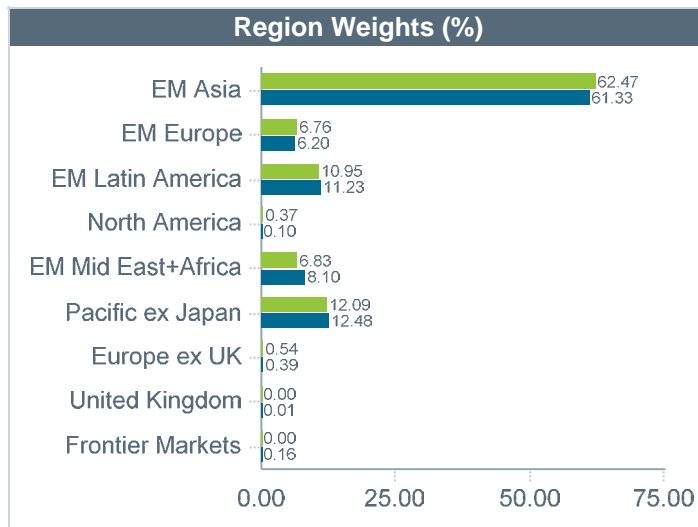
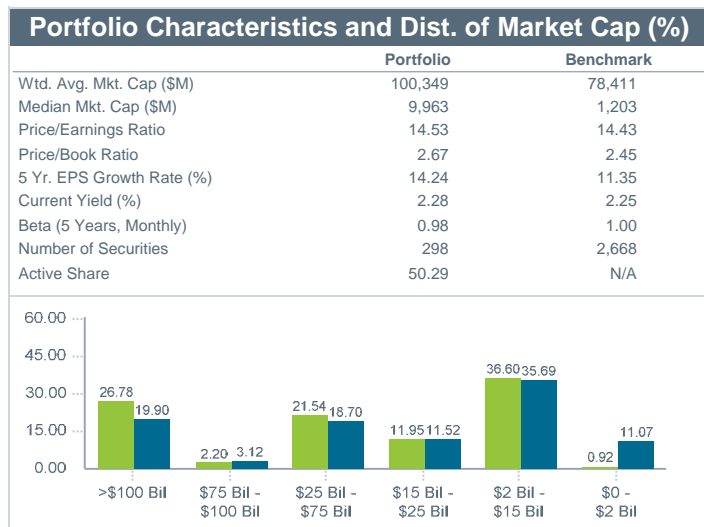
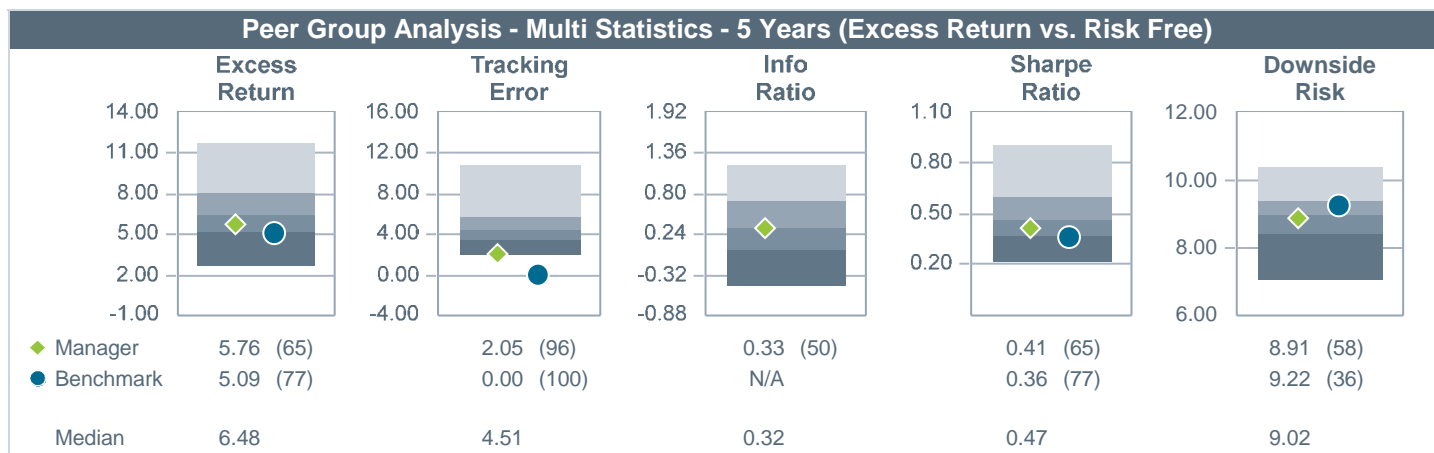
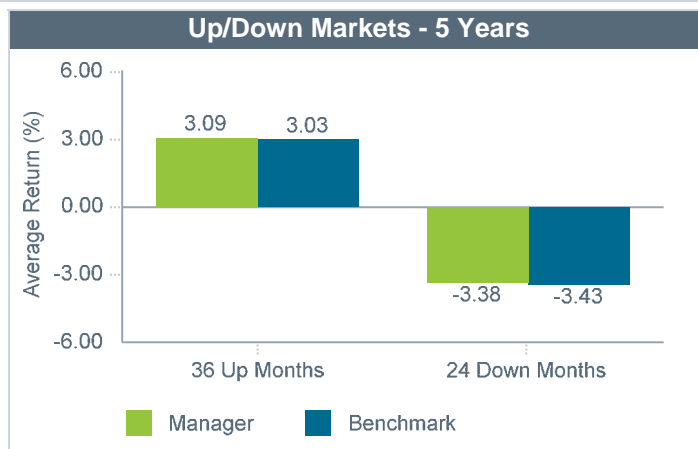
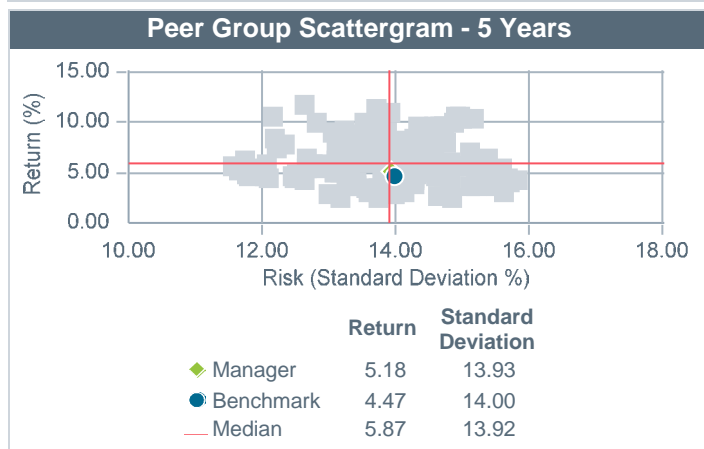
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	3.49	25.16	7.87	8.27	6.59	2.98	-0.70	0.99	-5.94	26.02	18.35
Benchmark	4.46	25.17	8.11	7.97	5.90	2.69	2.95	-1.95	-4.45	21.57	16.55
Difference	-0.97	-0.01	-0.24	0.30	0.69	0.29	-3.65	2.94	-1.49	4.45	1.80
Peer Group Median	4.19	26.38	8.85	9.07	7.30	3.45	1.05	1.22	-4.26	24.18	19.66
Rank	76	66	76	70	71	64	73	54	80	34	68
Population	179	179	178	171	165	149	196	212	209	203	200



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	7.25	37.13	9.31	5.18	N/A	N/A	12.18	-15.10	0.24	-1.67	N/A
Benchmark	7.67	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	-2.20	18.69
Difference	-0.42	0.30	0.30	0.71	N/A	N/A	2.28	-1.24	2.03	0.53	N/A
Peer Group Median	6.99	37.14	9.84	5.87	4.34	3.12	9.96	-12.66	-0.16	0.95	20.53
Rank	45	51	57	66	N/A	N/A	35	72	46	69	N/A
Population	284	283	268	224	165	124	301	320	318	303	275



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

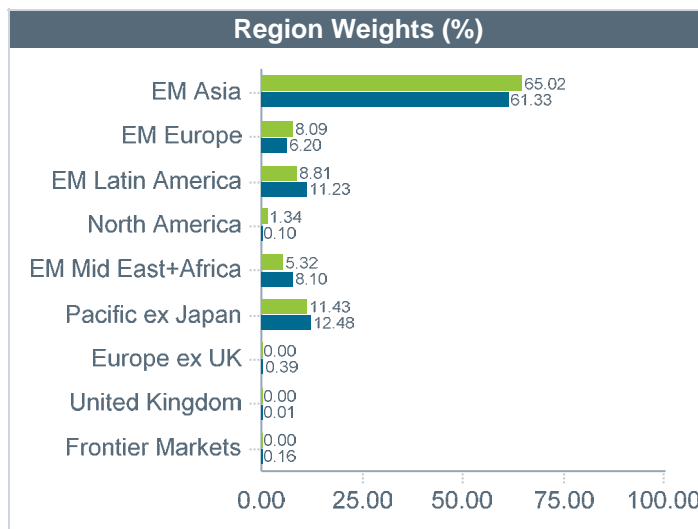
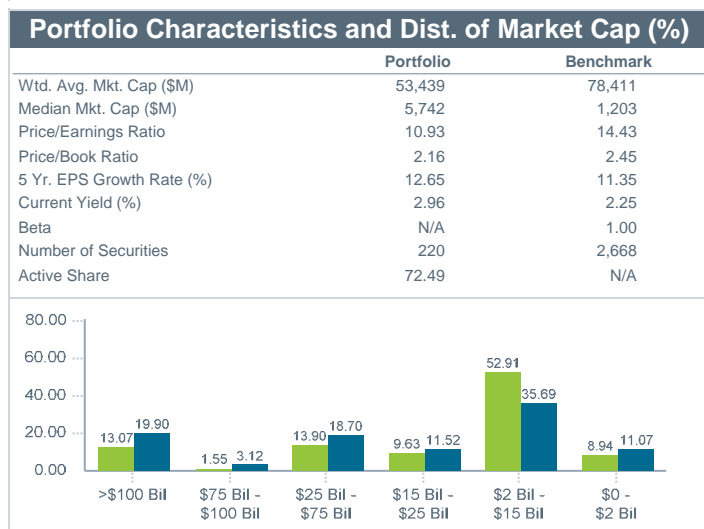
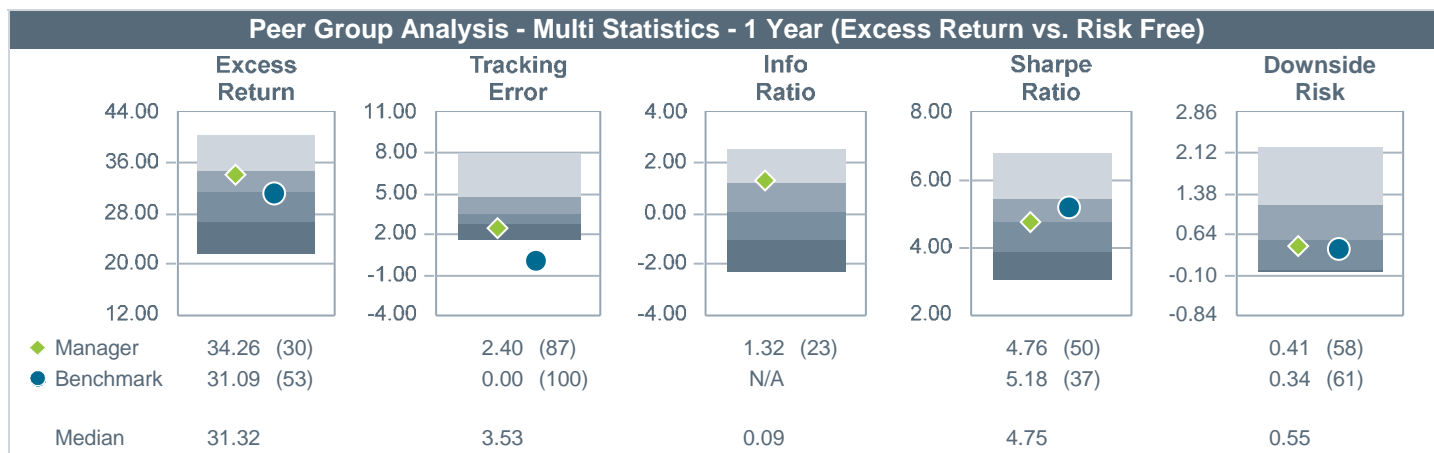
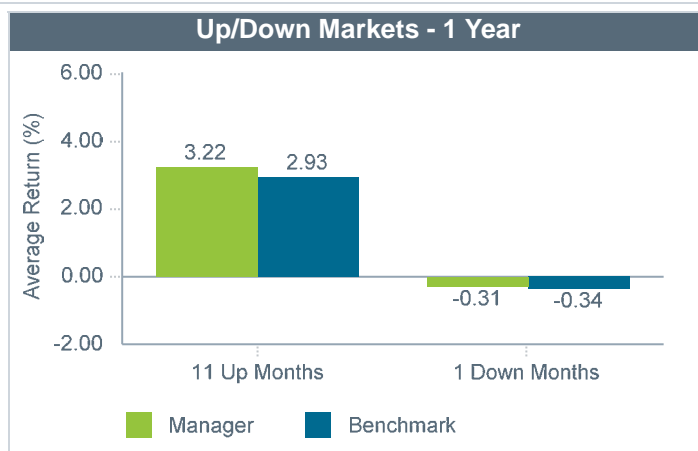
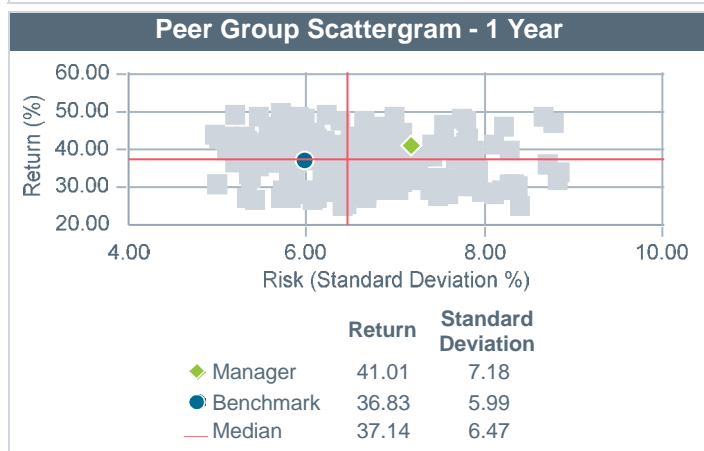
**Manager: Wellington Emerging (SA)**

**As of December 31, 2017**

**Benchmark: MSCI Emg Mkts IM Index (USD) (Net)**

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.23	41.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	7.67	36.83	9.01	4.47	2.50	1.85	9.90	-13.86	-1.79	-2.20	18.69
Difference	-1.44	4.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	6.99	37.14	9.84	5.87	4.34	3.12	9.96	-12.66	-0.16	0.95	20.53
Rank	68	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	284	283	268	224	165	124	301	320	318	303	275

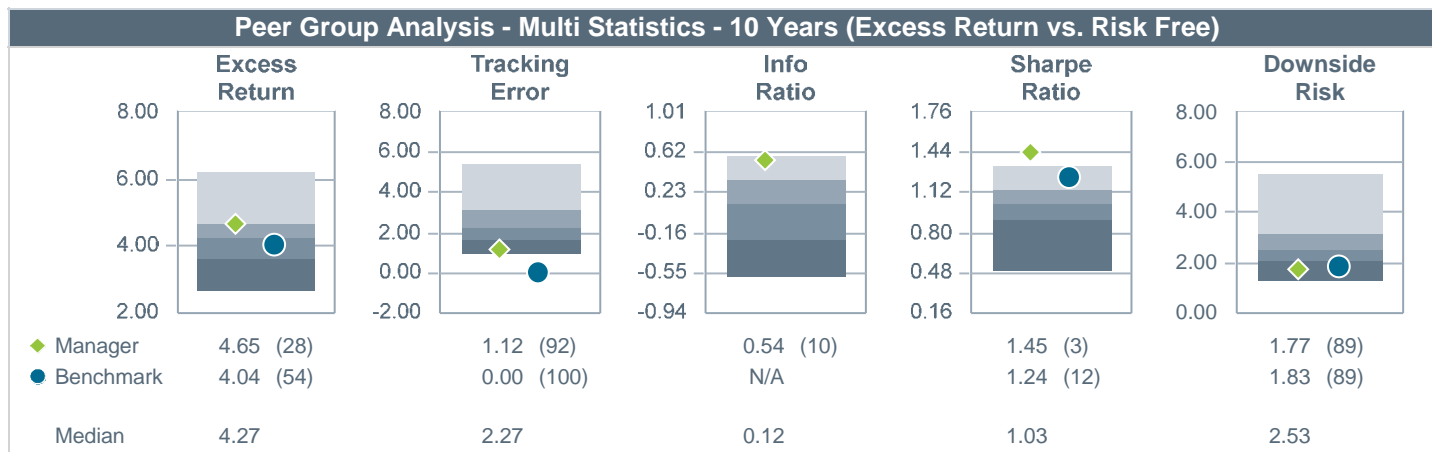
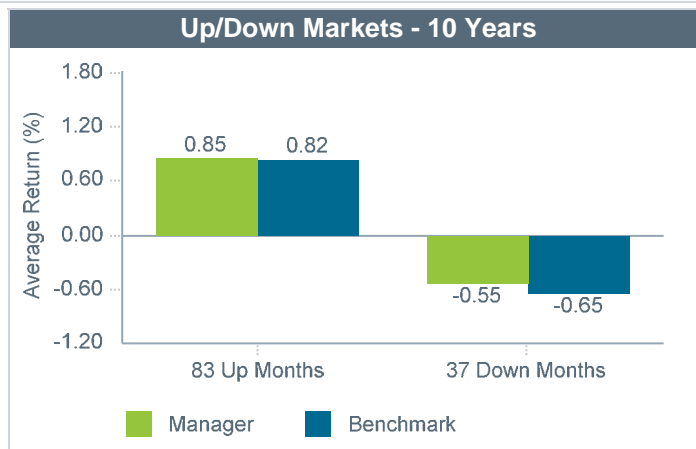
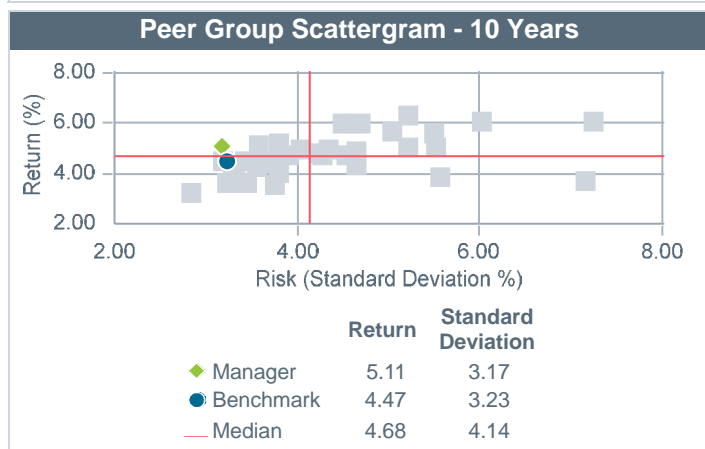


Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

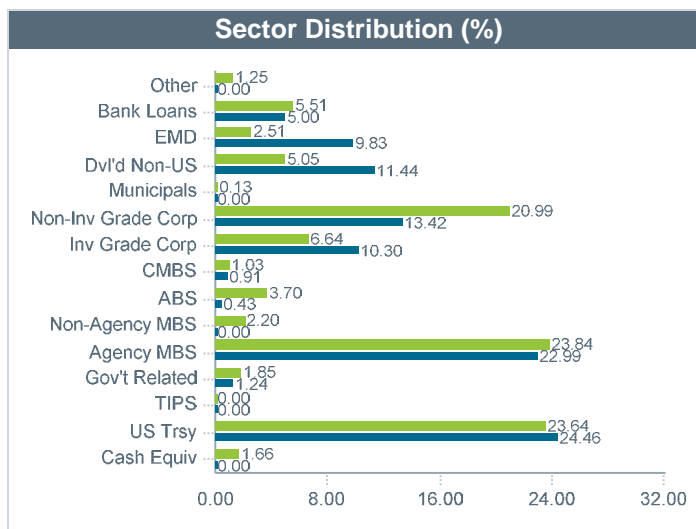
**Manager: Fixed Income Composite - Retirement**
**As of December 31, 2017**
**Benchmark:** Fixed Income Custom Index (R)

**Peer Group:** All Public Plans-US Fixed Income Segment

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.45	4.88	3.53	3.17	4.45	5.11	5.00	0.78	6.05	-0.68	7.52
Benchmark	0.40	4.12	3.26	2.78	3.82	4.47	5.65	0.11	5.56	-1.35	5.53
Difference	0.05	0.76	0.27	0.39	0.63	0.64	-0.65	0.67	0.49	0.67	1.99
Peer Group Median	0.62	4.54	2.92	2.60	4.01	4.68	4.52	0.30	6.01	-1.39	7.57
Rank	64	42	39	37	37	26	41	31	49	37	53
Population	93	86	85	76	64	43	92	78	49	49	48

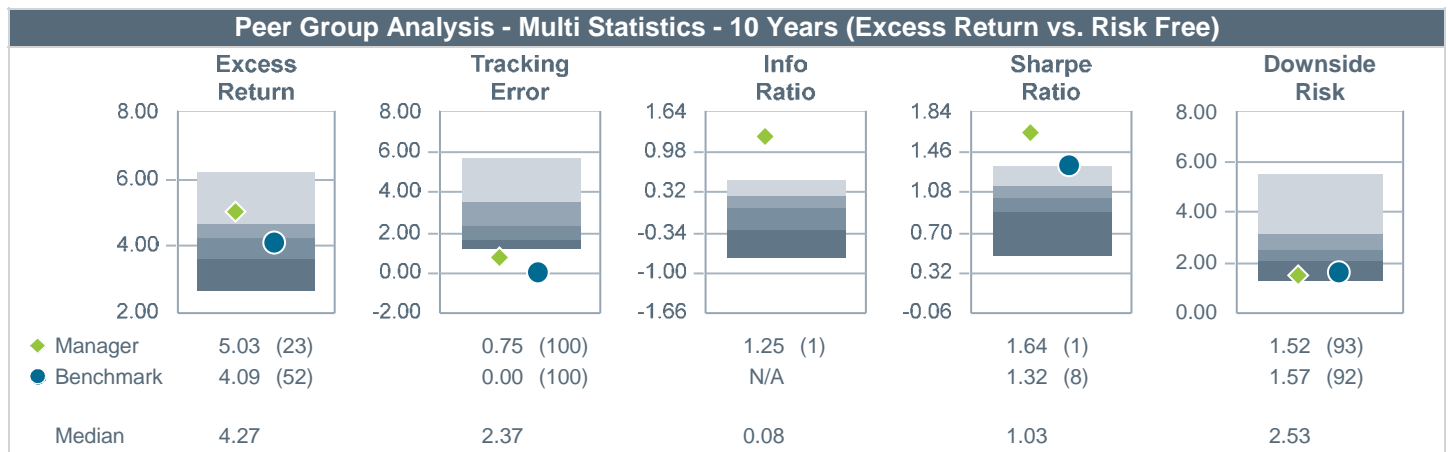
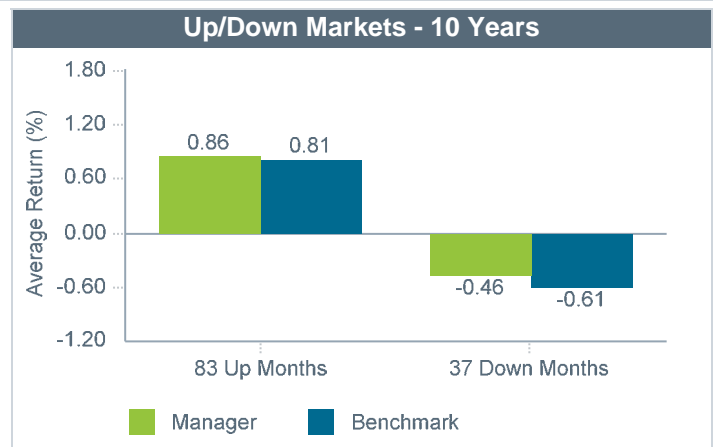
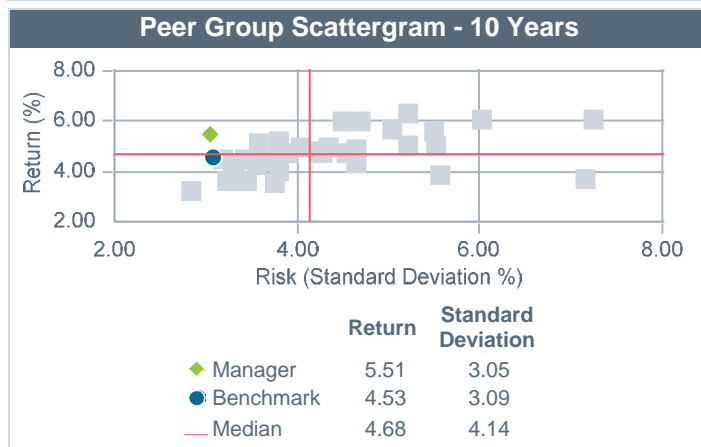


Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.36	N/A
Spread Duration	3.58	N/A
Avg. Maturity	6.19	6.11
Avg. Quality	A2	A1
Yield To Maturity (%)	3.52	3.53
Coupon Rate (%)	3.92	3.68
Current Yield (%)	3.86	3.58
Holdings Count	1,062	N/A

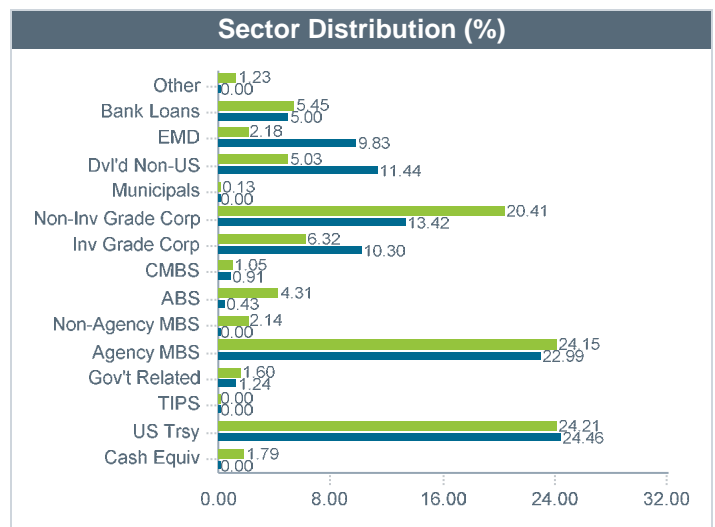


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Composite allocation to Non-Inv Grade Corp may include some Inv Grade Corp and allocation to Agency MBS may include some Non-Agency MBS. Allocation to "Other" consists of Preferred Stock and Convertible Bonds.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.48	4.89	3.51	3.13	4.37	5.51	4.85	0.83	6.05	-0.82	6.84
Benchmark	0.40	4.12	3.26	2.78	3.82	4.53	5.65	0.11	5.56	-1.35	5.53
Difference	0.08	0.77	0.25	0.35	0.55	0.98	-0.80	0.72	0.49	0.53	1.31
Peer Group Median	0.62	4.54	2.92	2.60	4.01	4.68	4.52	0.30	6.01	-1.39	7.57
Rank	60	42	39	38	40	22	42	28	49	38	63
Population	93	86	85	76	64	43	92	78	49	49	48



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.34	N/A
Spread Duration	3.55	N/A
Avg. Maturity	6.17	6.11
Avg. Quality	A2	A1
Yield To Maturity (%)	3.48	3.53
Coupon Rate (%)	3.85	3.68
Current Yield (%)	3.61	3.58
Holdings Count	1,182	N/A



Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Composite allocation to Non-Inv Grade Corp may include some Inv Grade Corp and allocation to Agency MBS may include some Non-Agency MBS. Allocation to "Other" consists of Preferred Stock and Convertible Bonds.

Manager: JP Morgan Principal Protection (SA)

As of December 31, 2017

Benchmark: Bloomberg US Int Agg Ex Credit

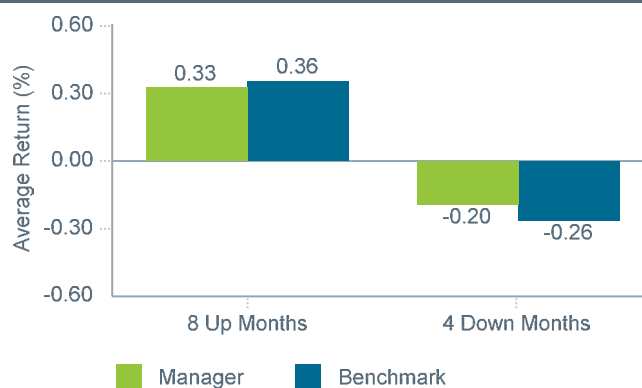
Peer Group: IM U.S. Broad Market Core Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	-0.14	1.86	N/A	N/A	N/A	N/A	2.02	N/A	N/A	N/A	N/A
Benchmark	-0.13	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	-1.27	2.35
Difference	-0.01	0.06	N/A	N/A	N/A	N/A	0.62	N/A	N/A	N/A	N/A
Peer Group Median	0.51	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	-1.56	5.88
Rank	99	100	N/A	N/A	N/A	N/A	97	N/A	N/A	N/A	N/A
Population	140	140	134	132	128	123	156	159	173	185	194

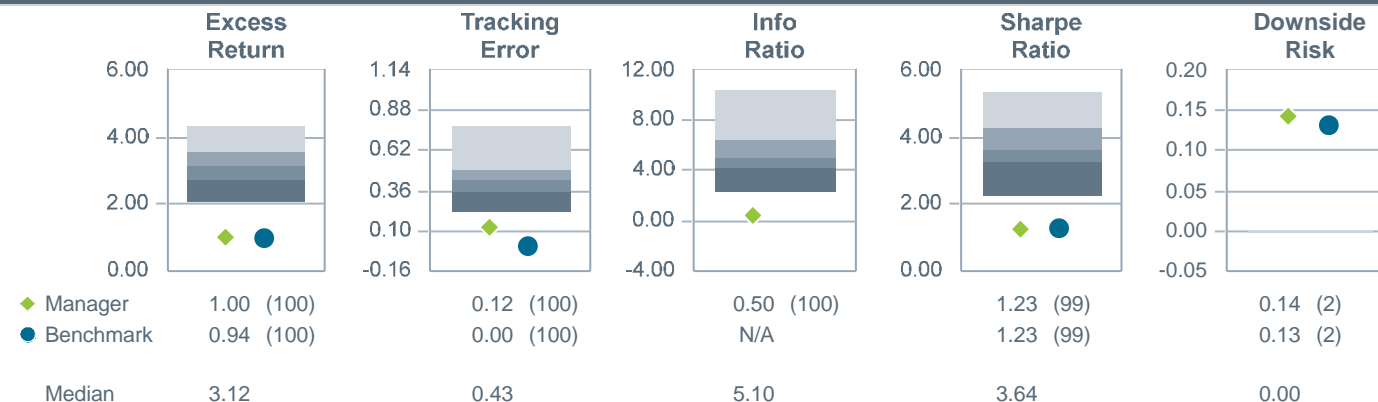
#### Peer Group Scattergram - 1 Year



#### Up/Down Markets - 1 Year



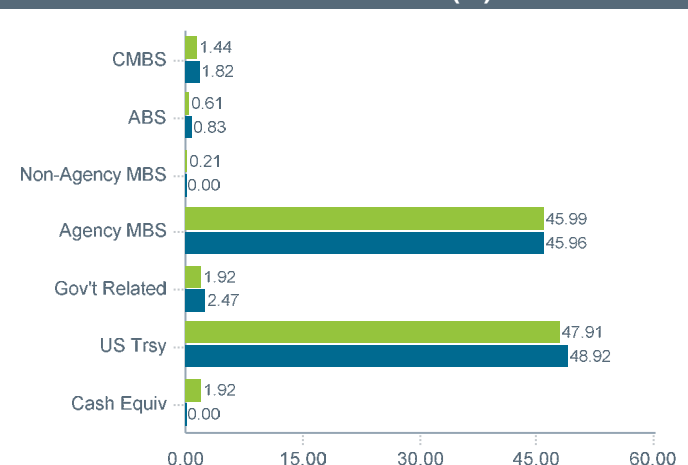
#### Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)



#### Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	3.60	4.00
Spread Duration	2.40	2.46
Avg. Maturity	4.33	4.98
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	2.46	2.46
Coupon Rate (%)	3.43	2.66
Current Yield (%)	3.65	2.63
Holdings Count	338	3,362

#### Sector Distribution (%)



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of Covered Bonds.

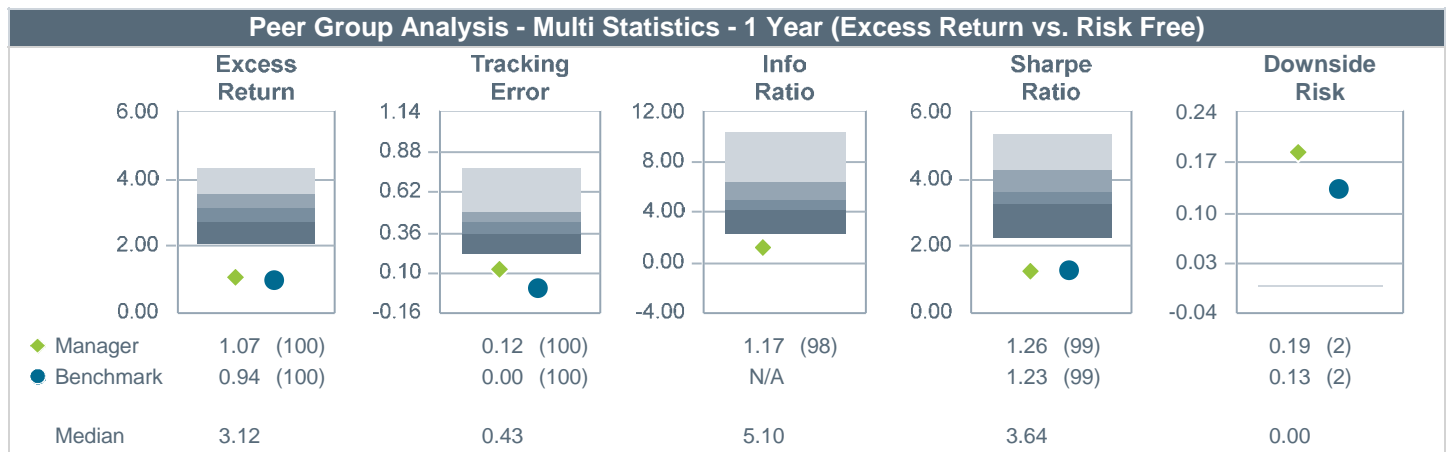
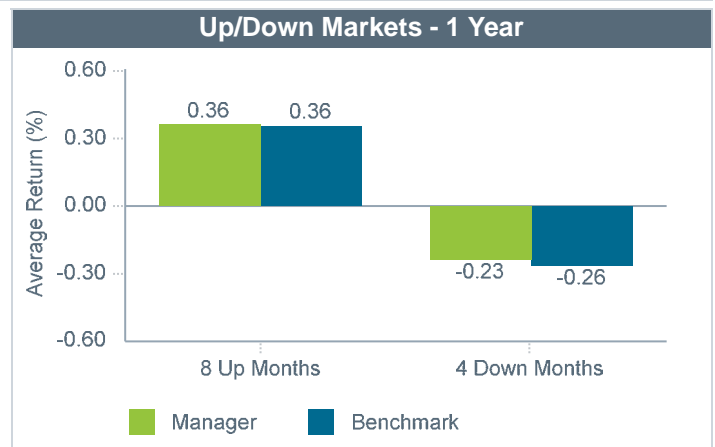
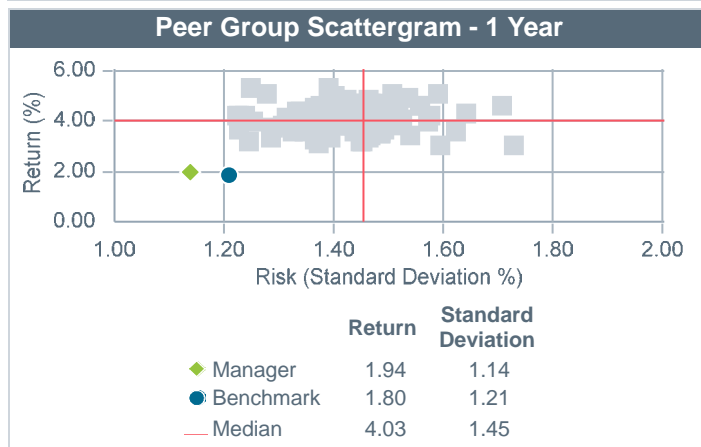
Manager: Wells Principal Protection (SA)

As of December 31, 2017

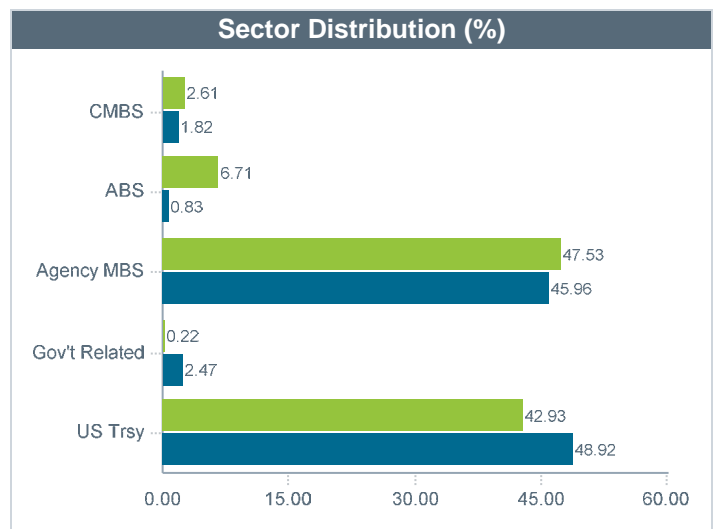
Benchmark: Bloomberg US Int Agg Ex Credit

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	-0.19	1.94	N/A	N/A	N/A	N/A	1.86	N/A	N/A	N/A	N/A
Benchmark	-0.13	1.80	1.51	1.46	2.24	3.24	1.40	1.32	4.11	-1.27	2.35
Difference	-0.06	0.14	N/A	N/A	N/A	N/A	0.46	N/A	N/A	N/A	N/A
Peer Group Median	0.51	4.03	2.60	2.47	3.68	4.60	3.10	0.82	6.16	-1.56	5.88
Rank	99	100	N/A	N/A	N/A	N/A	98	N/A	N/A	N/A	N/A
Population	140	140	134	132	128	123	156	159	173	185	194



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.12	4.00
Spread Duration	2.78	2.46
Avg. Maturity	5.28	4.98
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	2.59	2.46
Coupon Rate (%)	2.83	2.66
Current Yield (%)	2.79	2.63
Holdings Count	501	3,362



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of Covered Bonds.

**Manager: Macquarie Unconstrained (SA)**

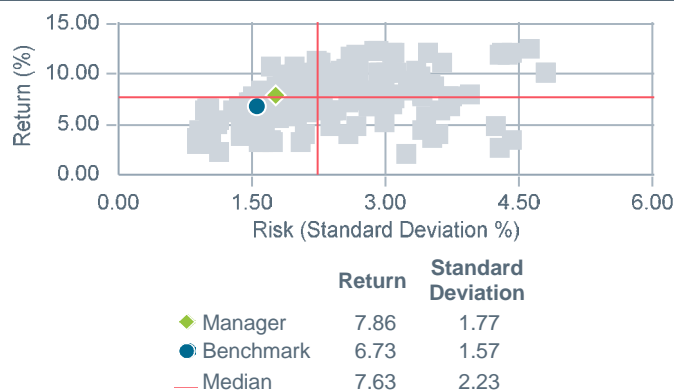
**As of December 31, 2017**

**Benchmark: 67% B Global Credit/33% B Global High Yield**

**Peer Group: IM Global Fixed Income (SA+CF)**

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.88	7.86	N/A	N/A	N/A	N/A	8.37	N/A	N/A	N/A	N/A
Benchmark	0.91	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	2.58	14.14
Difference	-0.03	1.13	N/A	N/A	N/A	N/A	-1.67	N/A	N/A	N/A	N/A
Peer Group Median	0.87	7.63	3.47	3.06	4.04	4.77	5.75	-2.31	2.48	-0.07	9.52
Rank	50	46	N/A	N/A	N/A	N/A	34	N/A	N/A	N/A	N/A
Population	220	219	211	185	144	107	246	258	260	253	242

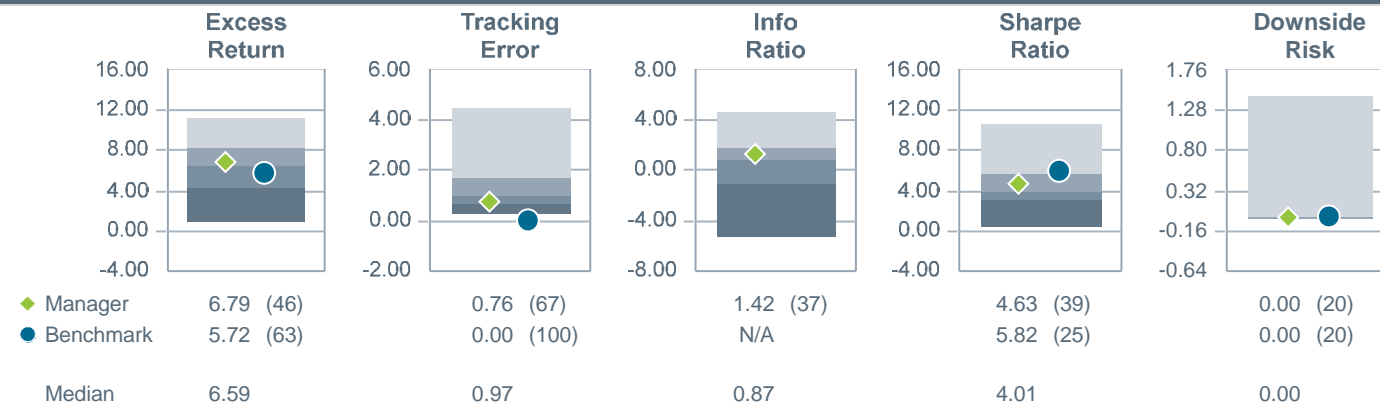
**Peer Group Scattergram - 1 Year**



**Up/Down Markets - 1 Year**



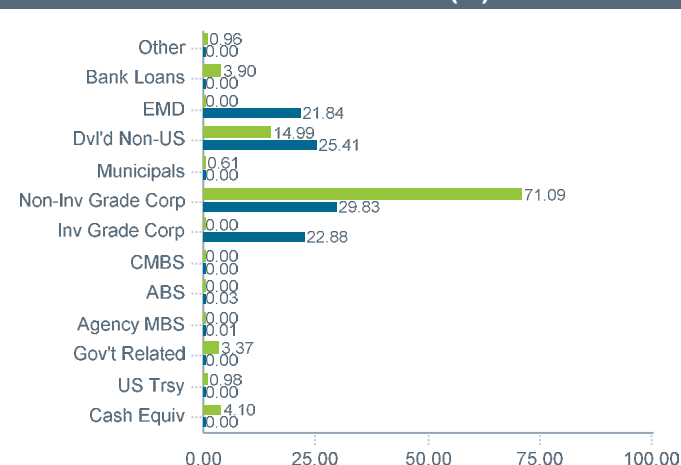
**Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)**



**Portfolio Characteristics**

	Portfolio	Benchmark
Effective Duration	5.23	5.64
Spread Duration	N/A	5.56
Avg. Maturity	7.65	7.47
Avg. Quality	Baa2	Baa2
Yield To Maturity (%)	4.23	4.38
Coupon Rate (%)	4.71	4.66
Current Yield (%)	4.51	4.47
Holdings Count	N/A	16,738

**Sector Distribution (%)**



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Manager allocation to Non-Inv Grade Corp may include some Inv Grade Corp and allocation to Agency MBS may include some Non-Agency MBS. Allocation to "Other" consists of Preferred Stock, Sovereigns, and Convertible Bonds. On March 31, 2017, Delaware Investments adopted the name of its parent company, Macquarie Investment Management.

Manager: Neuberger Unconstrained (SA)

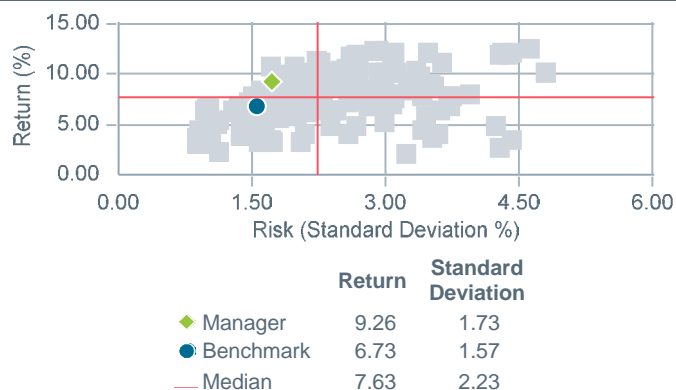
As of December 31, 2017

Benchmark: 67% B Global Credit/33% B Global High Yield

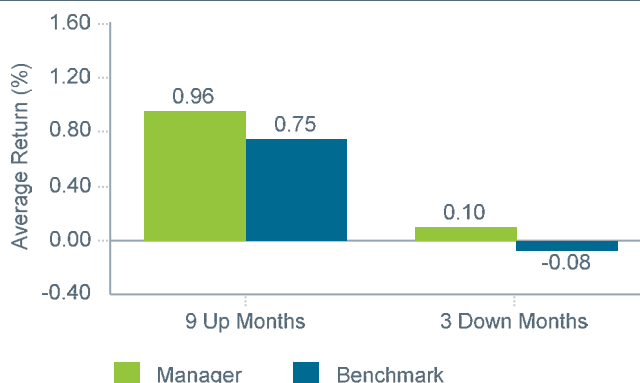
Peer Group: IM Global Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	1.34	9.26	N/A	N/A	N/A	N/A	9.65	N/A	N/A	N/A	N/A
Benchmark	0.91	6.73	5.39	4.80	6.04	6.61	10.04	-0.34	5.28	2.58	14.14
Difference	0.43	2.53	N/A	N/A	N/A	N/A	-0.39	N/A	N/A	N/A	N/A
Peer Group Median	0.87	7.63	3.47	3.06	4.04	4.77	5.75	-2.31	2.48	-0.07	9.52
Rank	23	27	N/A	N/A	N/A	N/A	30	N/A	N/A	N/A	N/A
Population	220	219	211	185	144	107	246	258	260	253	242

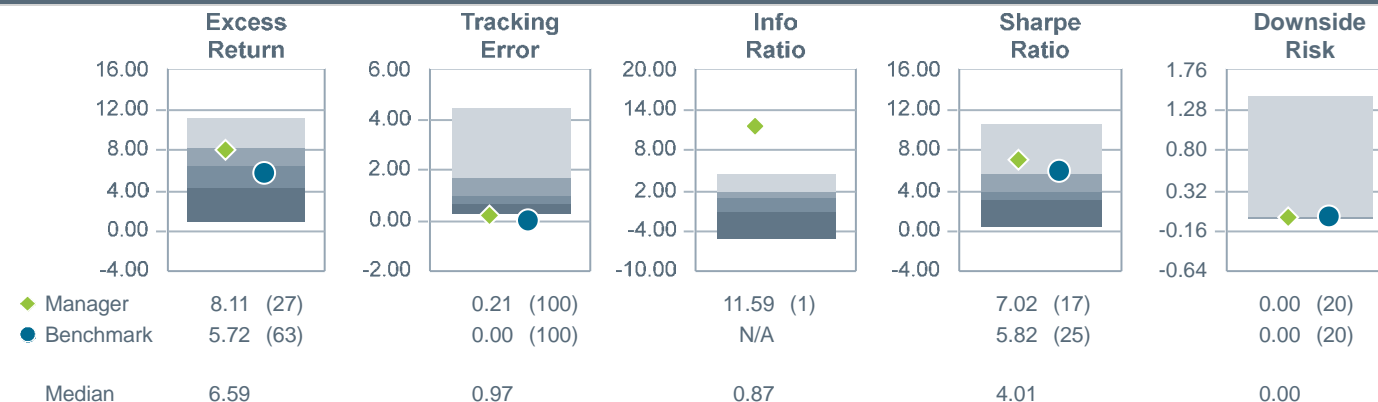
Peer Group Scattergram - 1 Year



Up/Down Markets - 1 Year



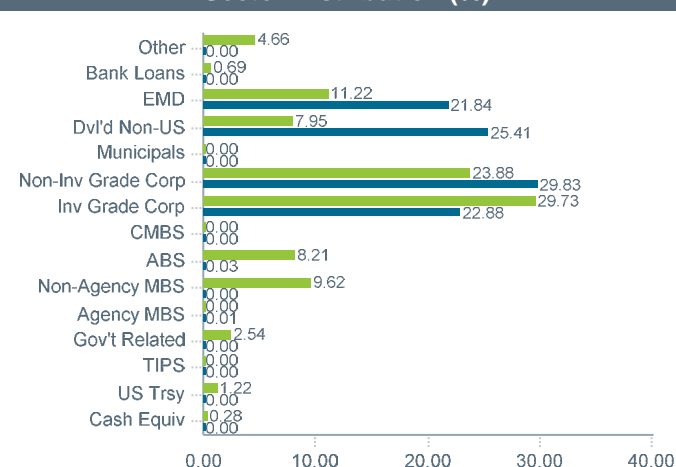
Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)



Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.55	5.64
Spread Duration	5.72	5.56
Avg. Maturity	8.08	7.47
Avg. Quality	Ba1	Baa2
Yield To Maturity (%)	4.65	4.38
Coupon Rate (%)	4.70	4.66
Current Yield (%)	4.32	4.47
Holdings Count	742	16,738

Sector Distribution (%)



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of CRTs.



Manager: Pacific Asset Bank Loans (SA)

As of December 31, 2017

Benchmark: CS Lvg'd Loan Index

Peer Group: IM U.S. Bank Loans (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	1.04	5.48	N/A	N/A	N/A	N/A	9.18	N/A	N/A	N/A	N/A
Benchmark	1.17	4.25	4.50	4.33	4.68	4.57	9.88	-0.38	2.06	6.15	9.43
Difference	-0.13	1.23	N/A	N/A	N/A	N/A	-0.70	N/A	N/A	N/A	N/A
Peer Group Median	1.24	4.46	4.78	4.52	5.04	5.16	9.51	0.76	2.06	6.28	9.98
Rank	89	9	N/A	N/A	N/A	N/A	58	N/A	N/A	N/A	N/A
Population	61	61	60	54	49	30	64	67	70	63	64

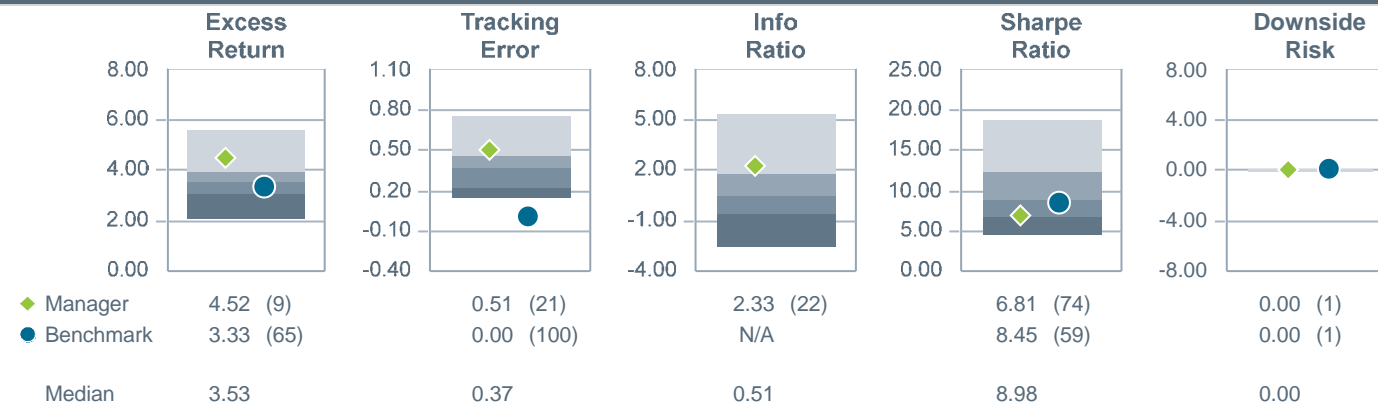
#### Peer Group Scattergram - 1 Year



#### Up/Down Markets - 1 Year



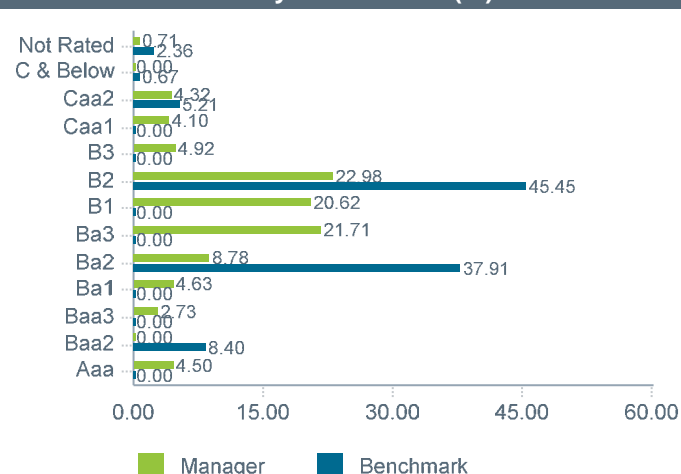
#### Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)



#### Portfolio Characteristics

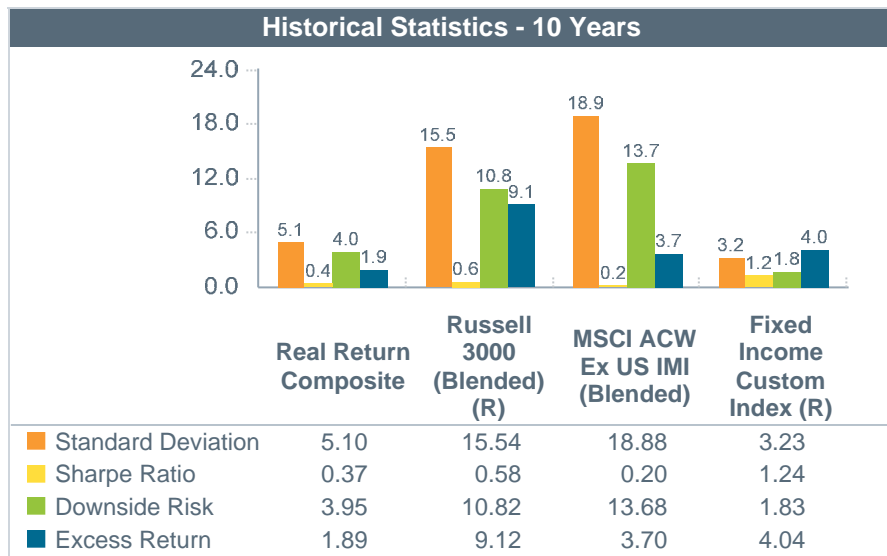
	Portfolio	Benchmark
Effective Duration	0.28	N/A
Spread Duration	4.17	N/A
Avg. Maturity	5.56	5.09
Avg. Quality	B1	Ba2
Yield To Maturity (%)	5.57	6.55
Coupon Rate (%)	4.99	5.03
Current Yield (%)	5.57	5.15
Holdings Count	151	1,502

#### Quality Distribution (%)



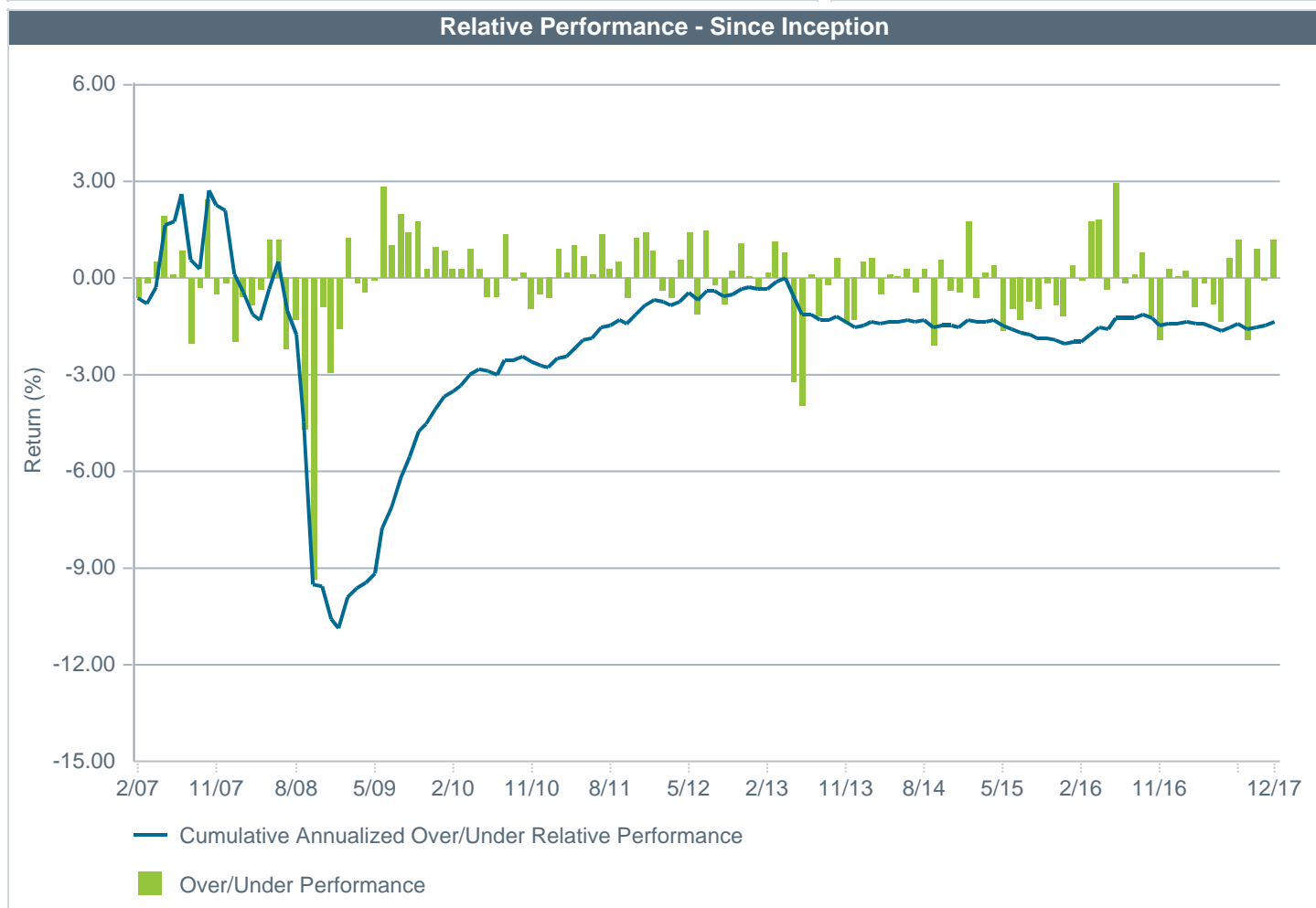
Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	3.50	4.05	3.67	1.61	3.34	2.17	9.90	-2.56	2.21	-4.88	5.62
Benchmark	1.36	5.17	4.66	4.34	3.99	3.94	5.15	3.68	3.68	4.05	3.11
Difference	2.14	-1.12	-0.99	-2.73	-0.65	-1.77	4.75	-6.24	-1.47	-8.93	2.51

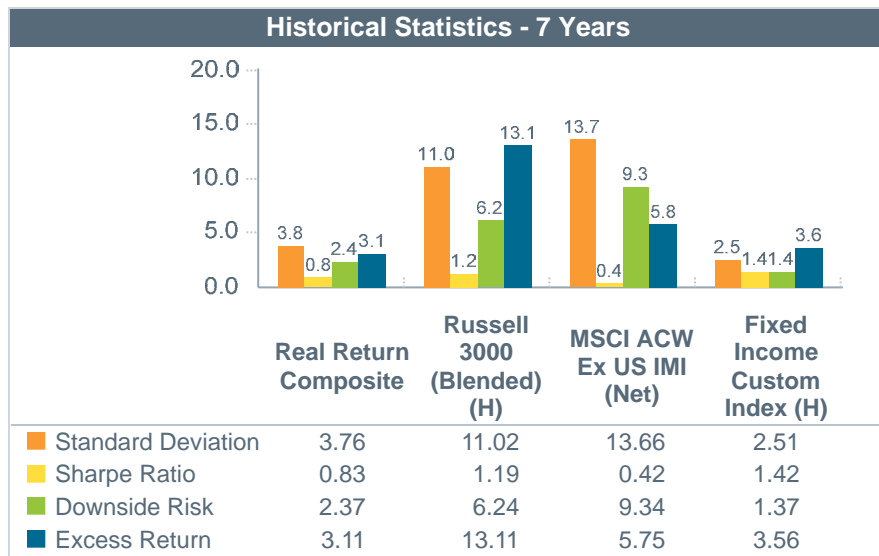


**Actual Correlation - 10 Years**

	Actual Correlation
Composite Benchmark	-0.04
S&P 500 Index (Cap Wtd)	0.27
Russell 2000 Index	0.20
MSCI EAFE Index (USD) (Net)	0.30
MSCI Emg Mkts Index (USD) (Net)	0.40
Bloomberg US Agg Bond Index	0.45
Bloomberg US Trsy US TIPS Index	0.59
Wilshire US REIT Index	0.29
HFRI FOF Comp Index	0.46
Bloomberg Cmtty Index (TR)	0.44
BofA ML 3 Mo US T-Bill Index	-0.24
Cons Price Index (Unadjusted)	0.30

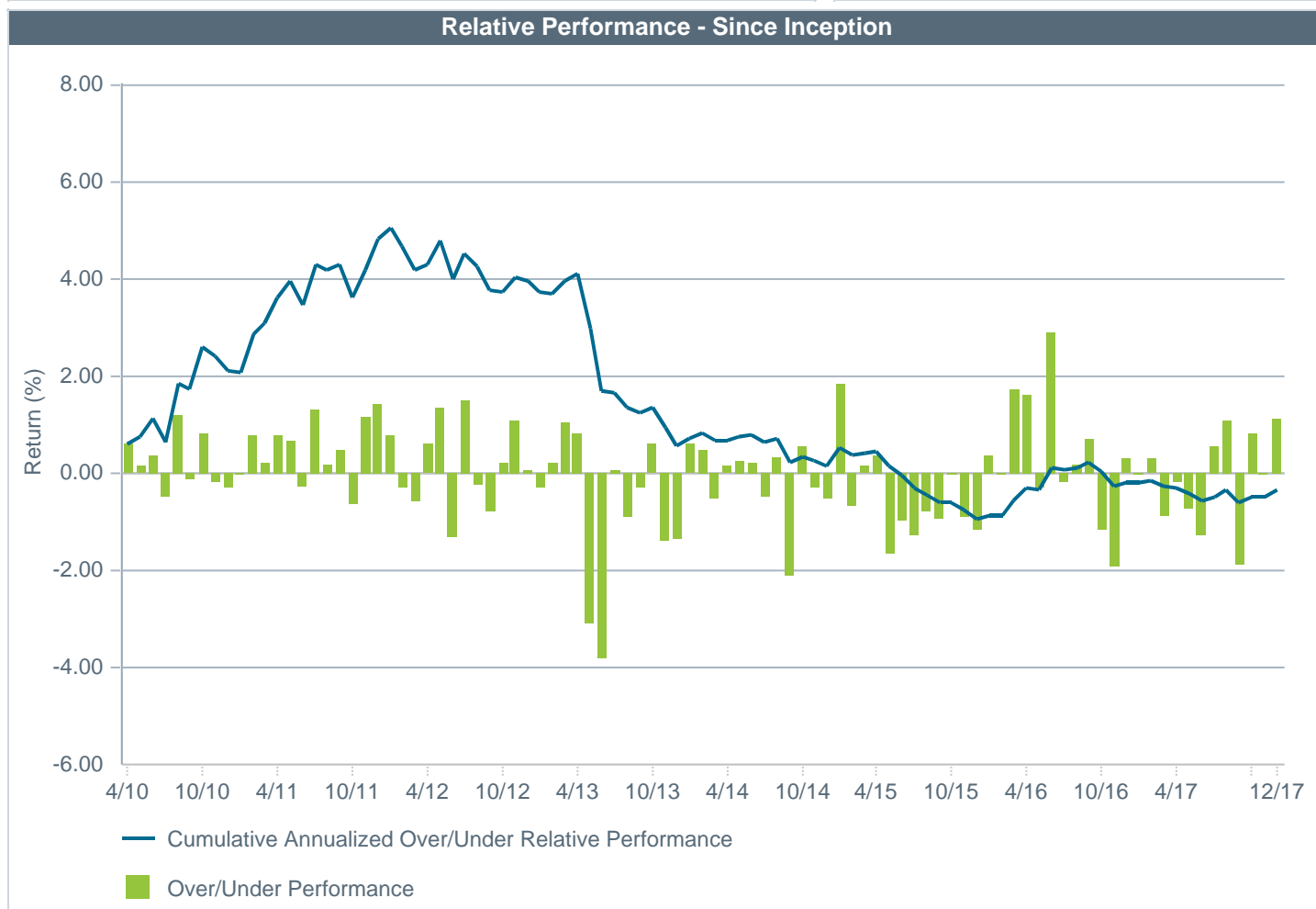


	Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	3.35	3.97	3.53	1.63	3.31	N/A	9.56	-2.58	2.26	-4.45	5.58
Benchmark	1.36	5.17	4.66	4.34	3.99	3.94	5.15	3.68	3.68	4.05	3.11
Difference	1.99	-1.20	-1.13	-2.71	-0.68	N/A	4.41	-6.26	-1.42	-8.50	2.47

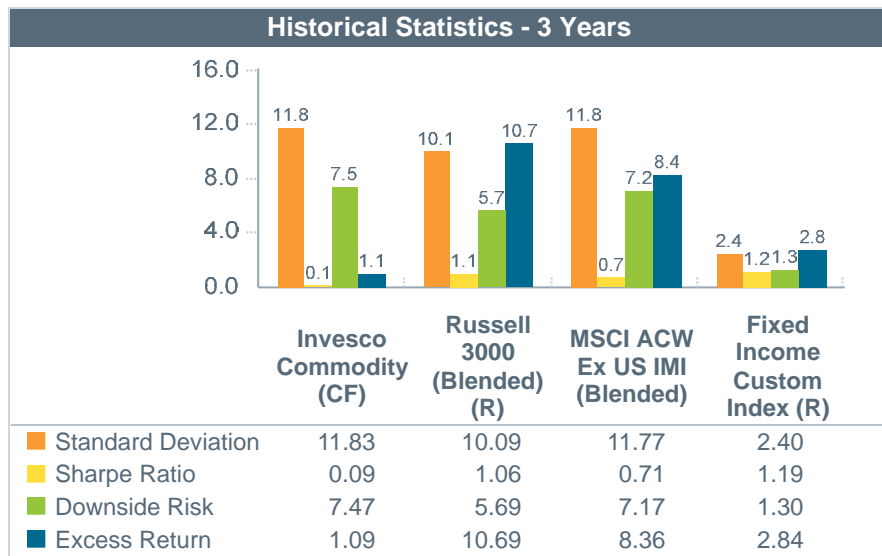


**Actual Correlation - 7 Years**

	Actual Correlation
Composite Benchmark	0.10
S&P 500 Index (Cap Wtd)	-0.02
Russell 2000 Index	-0.08
MSCI EAFE Index (USD) (Net)	0.06
MSCI Emg Mkts Index (USD) (Net)	0.25
Bloomberg US Agg Bond Index	0.69
Bloomberg US Trsy US TIPS Index	0.76
Wilshire US REIT Index	0.27
HFRI FOF Comp Index	0.08
Bloomberg Cmtty Index (TR)	0.28
BofA ML 3 Mo US T-Bill Index	0.16
Cons Price Index (Unadjusted)	0.07

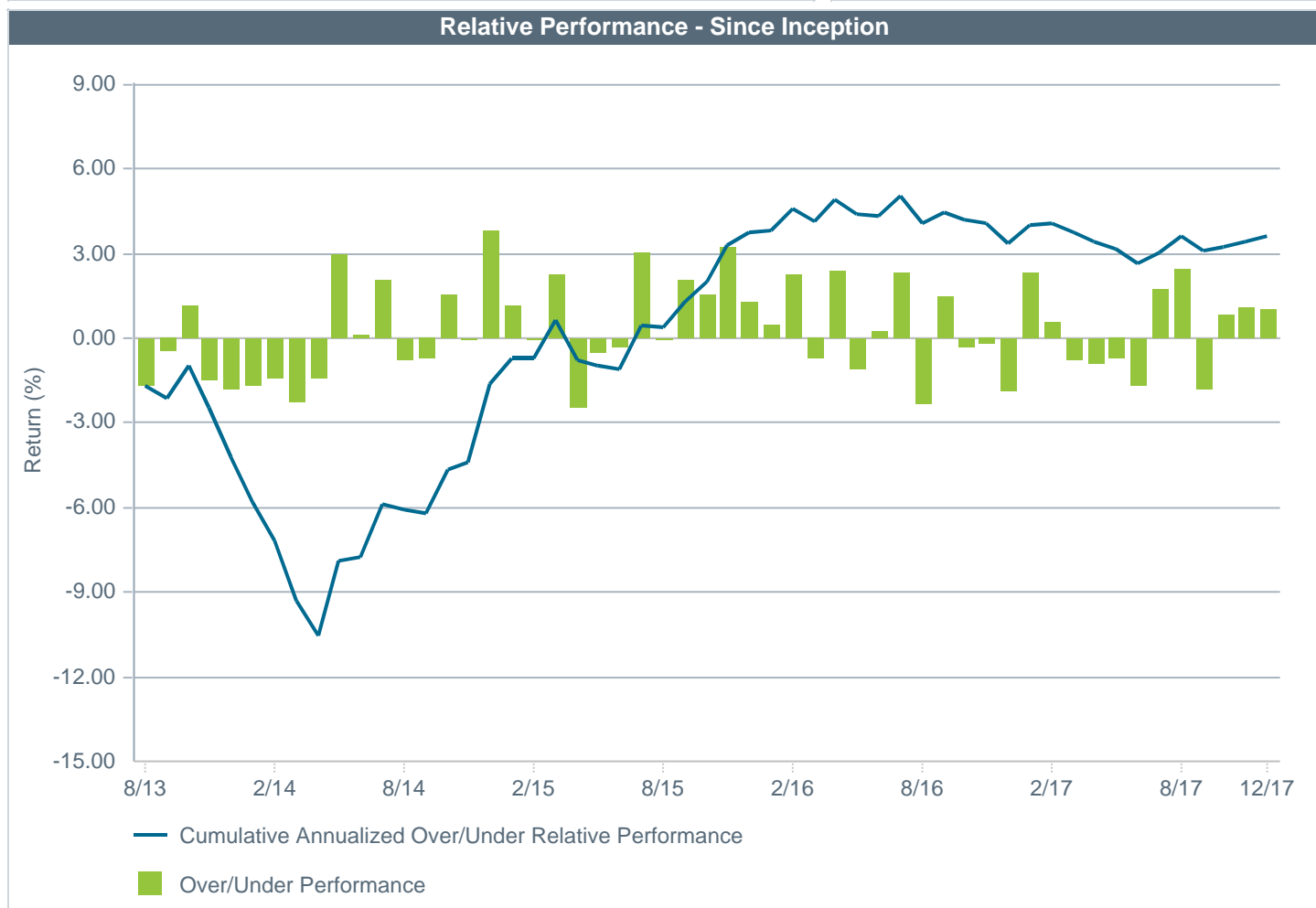


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	7.87	6.09	0.81	N/A	N/A	N/A	14.61	-15.75	-15.29	N/A	N/A
Benchmark	4.71	1.70	-5.04	-8.45	-8.15	-6.83	11.77	-24.66	-17.01	-9.52	-1.06
Difference	3.16	4.39	5.85	N/A	N/A	N/A	2.84	8.91	1.72	N/A	N/A



**Actual Correlation - 3 Years**

	Actual Correlation
Manager Benchmark	0.90
S&P 500 Index (Cap Wtd)	0.19
Russell 2000 Index	0.12
MSCI EAFE Index (USD) (Net)	0.20
MSCI Emg Mkts Index (USD) (Net)	0.44
Bloomberg US Agg Bond Index	-0.01
Bloomberg US Trsy US TIPS Index	0.23
Wilshire US REIT Index	-0.13
HFRI FOF Comp Index	0.15
BofA ML 3 Mo US T-Bill Index	0.33
Cons Price Index (Unadjusted)	0.27

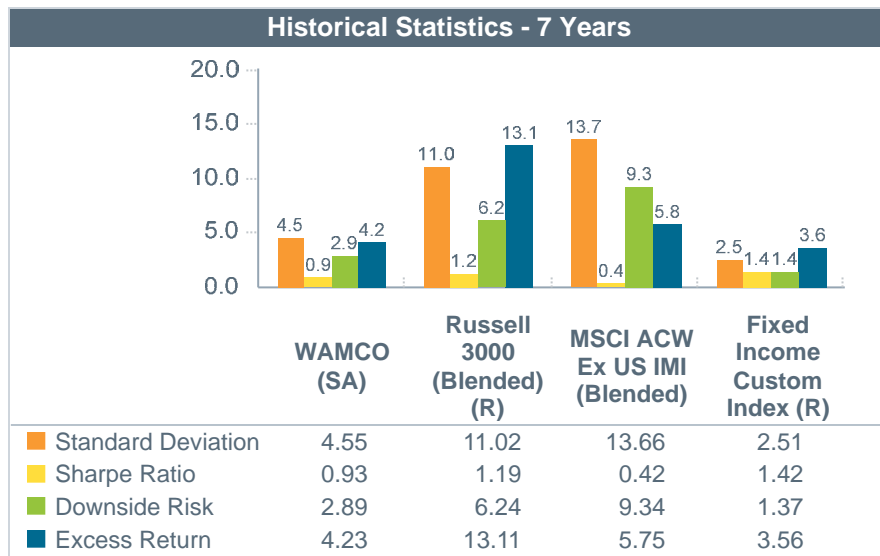


Manager: WAMCO (SA)

As of December 31, 2017

Benchmark: Bloomberg Wrld Gov't Infl Lnkd Index (Hedged)

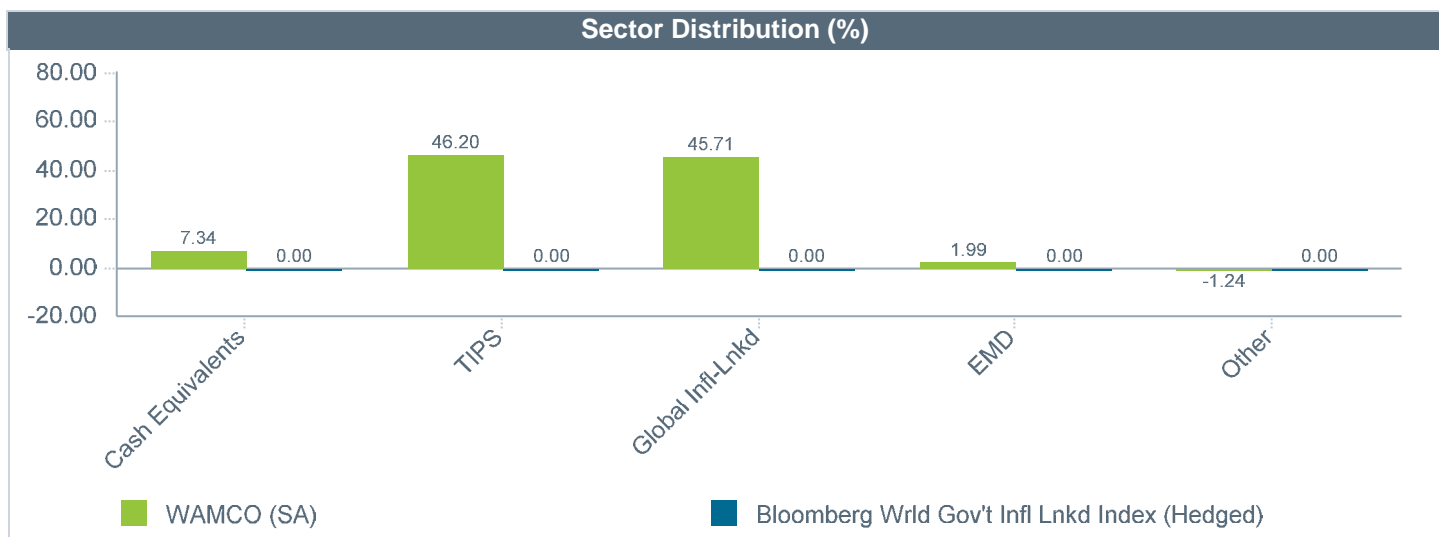
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	2.29	3.33	4.09	2.96	4.43	N/A	9.37	-0.22	8.75	-5.64	5.48
Benchmark	2.51	3.38	4.06	3.03	4.51	4.61	10.22	-1.12	9.04	-5.51	5.60
Difference	-0.22	-0.05	0.03	-0.07	-0.08	N/A	-0.85	0.90	-0.29	-0.13	-0.12



**Actual Correlation - 7 Years**

	Actual Correlation
Manager Benchmark	0.98
S&P 500 Index (Cap Wtd)	-0.03
Russell 2000 Index	-0.12
MSCI EAFE Index (USD) (Net)	0.03
MSCI Emg Mkts Index (USD) (Net)	0.17
Bloomberg US Agg Bond Index	0.81
Bloomberg US Trsy US TIPS Index	0.78
Wilshire US REIT Index	0.36
HFRI FOF Comp Index	0.05
Bloomberg Cmtty Index (TR)	-0.05
BofA ML 3 Mo US T-Bill Index	0.01
Cons Price Index (Unadjusted)	-0.09

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	9.66	N/A
Spread Duration	0.71	N/A
Avg. Maturity	10.44	11.40
Avg. Quality	Aa2	Aaa
Yield To Maturity (%)	2.23	N/A
Coupon Rate (%)	1.24	N/A
Yield To Worst (%)	0.39	-0.78
Current Yield (%)	0.87	N/A
Holdings Count	50	135



Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Allocation to "Other" consists of Eurobonds.

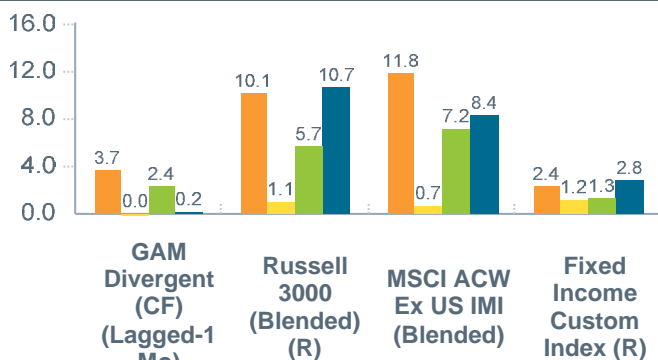
Manager: GAM Divergent (CF) (Lagged-1 Mo)

As of December 31, 2017

Benchmark: BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	-0.14	1.21	0.52	N/A	N/A	N/A	-3.23	3.70	4.82	N/A	N/A
Benchmark	1.00	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.08	3.10
Difference	-1.14	-2.60	-2.87	N/A	N/A	N/A	-6.56	0.68	1.77	N/A	N/A

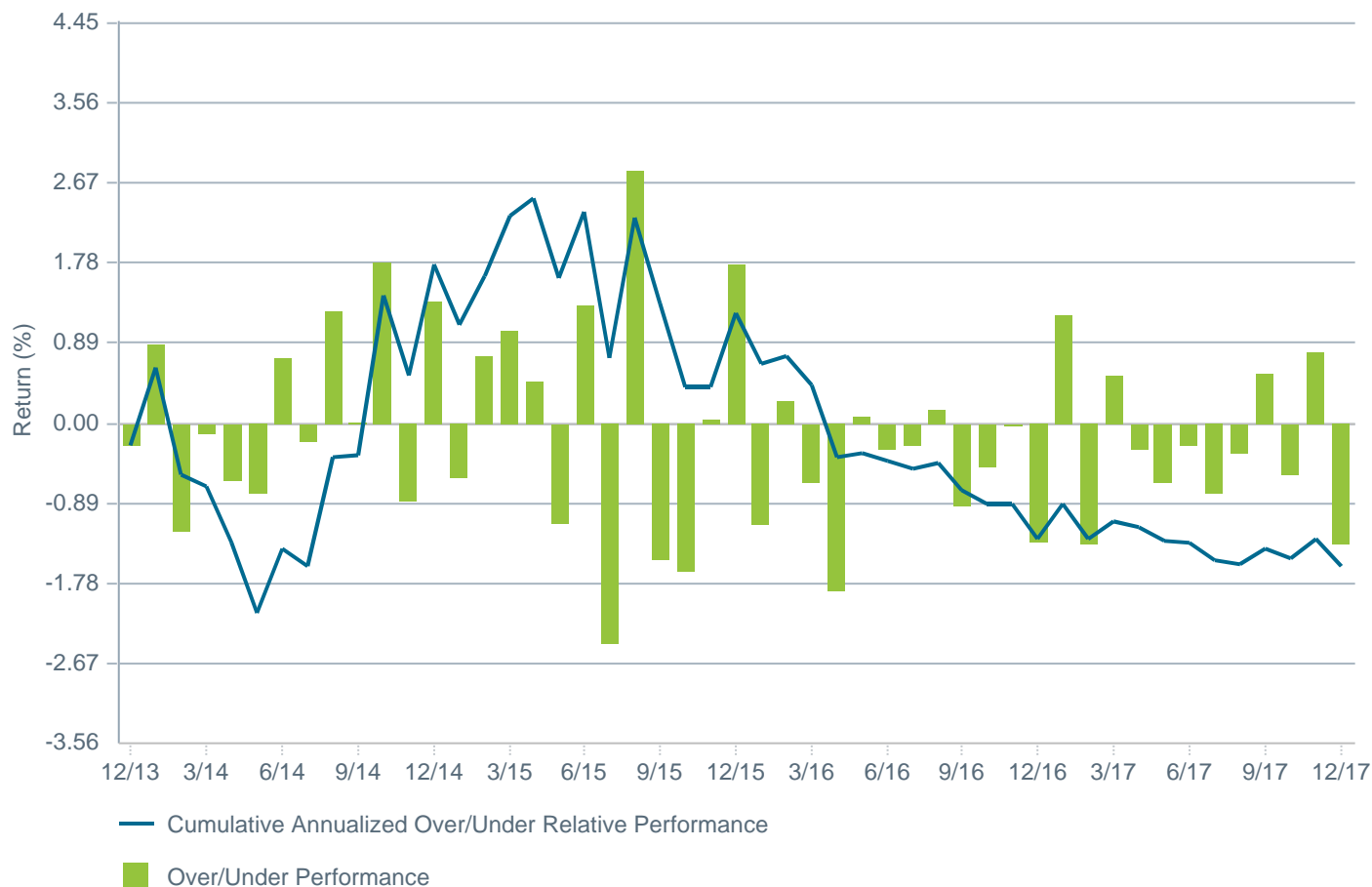
#### Historical Statistics - 3 Years



#### Actual Correlation - 3 Years

	Actual Correlation
Manager Benchmark	-0.11
S&P 500 Index (Cap Wtd)	-0.30
Russell 2000 Index	-0.07
MSCI EAFE Index (USD) (Net)	-0.27
MSCI Emg Mkts Index (USD) (Net)	-0.14
Bloomberg US Agg Bond Index	-0.36
Bloomberg US Trsy US TIPS Index	-0.30
Wilshire US REIT Index	-0.40
HFRI FOF Comp Index	-0.19
Bloomberg Cmtty Index (TR)	-0.01
BofA ML 3 Mo US T-Bill Index	-0.02
Cons Price Index (Unadjusted)	0.05

#### Relative Performance - Since Inception



Performance shown is net of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity.



### Investment Strategy

The strategy seeks to achieve long term capital appreciation with a diversification of risk. This is sought by allocating the Company's assets to one or more Trading Funds managed by Trading Advisers who employ a variety of investment techniques and strategies in financial markets worldwide.

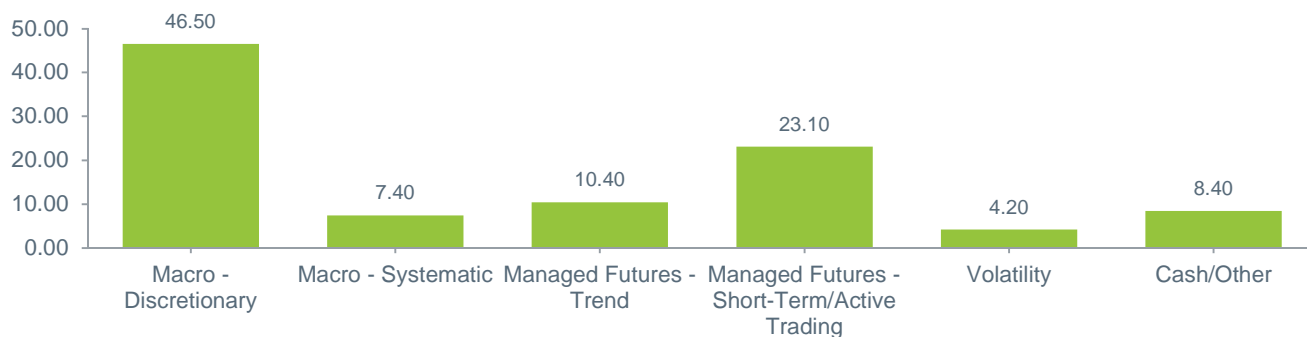
### Firm Statistics

Year Firm Established	1983
Firm AUM (\$B)	\$153
Percentage Employee Owned	15.00%

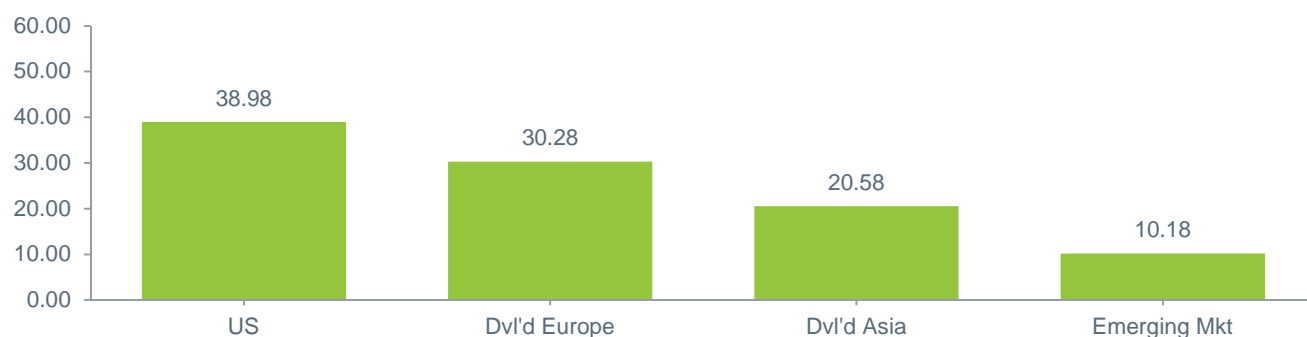
### Fund Statistics

Fund Inception	2013
Fund Size (\$M)	\$99
Number of Underlying Managers	17
Maximum Weighting of an Underlying Manager	14.00%
Current Leverage (Assets/Equity)	None
Annual Manager Turnover	17.00%
Annual Management Fee	0.65%
Performance Fee	No
Hurdle	No
Initial Lock-Up Period	No
Redemption Frequency	Monthly
Notification Period	48 Days

### Strategy Allocation (%)



### Geographic Allocation (%)



Fund statistics shown are provided by the investment manager and are as of the most recently available quarter end. Actual management and performance fees and other terms may vary based on the invested assets or other manager concessions.

GAM Underlying Manager Allocations

Macro - Discretionary	Allocation (%)
Alphadyne Global Rates II	11.3
LindenGrove	9.7
Karya	7.1
Autonomy Global	6.3
MaxQ Enhanced	4.8
Pharo Trading	5.4
Gemsstock	2.0
<b>Subtotal</b>	<b>46.6</b>

Macro - Systematic	Allocation (%)
QMS Diversified Global Macro	3.4
Two Sigma AR Macro Enhanced	3.1
Two Sigma Compass Enhanced	0.9
<b>Subtotal</b>	<b>7.4</b>

Managed Futures - Trend	Allocation (%)
Winton Futures	6.0
GSA Trend	4.4
<b>Subtotal</b>	<b>10.4</b>

Managed Futures - Short-Term/Active	Allocation (%)
Jefferies Systematic	6.5
Crabel Multi-Product	6.5
Edgestream Nias	6.1
GTS Master Fund	4.0
<b>Subtotal</b>	<b>23.1</b>

Relative Value	Allocation (%)
Laurion Capital	4.2
<b>Subtotal</b>	<b>4.2</b>

<b>Cash and Other</b>	<b>8.4</b>
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Turnover

Strategy Allocation	New	Terms/Trans
Macro-Discretionary	1	2
Macro-Systematic	0	0
Managed Futures-Trend	0	0
Managed Futures-Short Term/Active	0	1
Relative Value	0	0
<b>YTD Turnover</b>	<b>1</b>	<b>3</b>

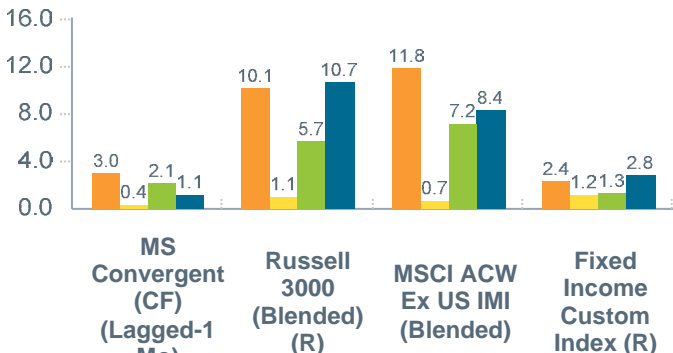


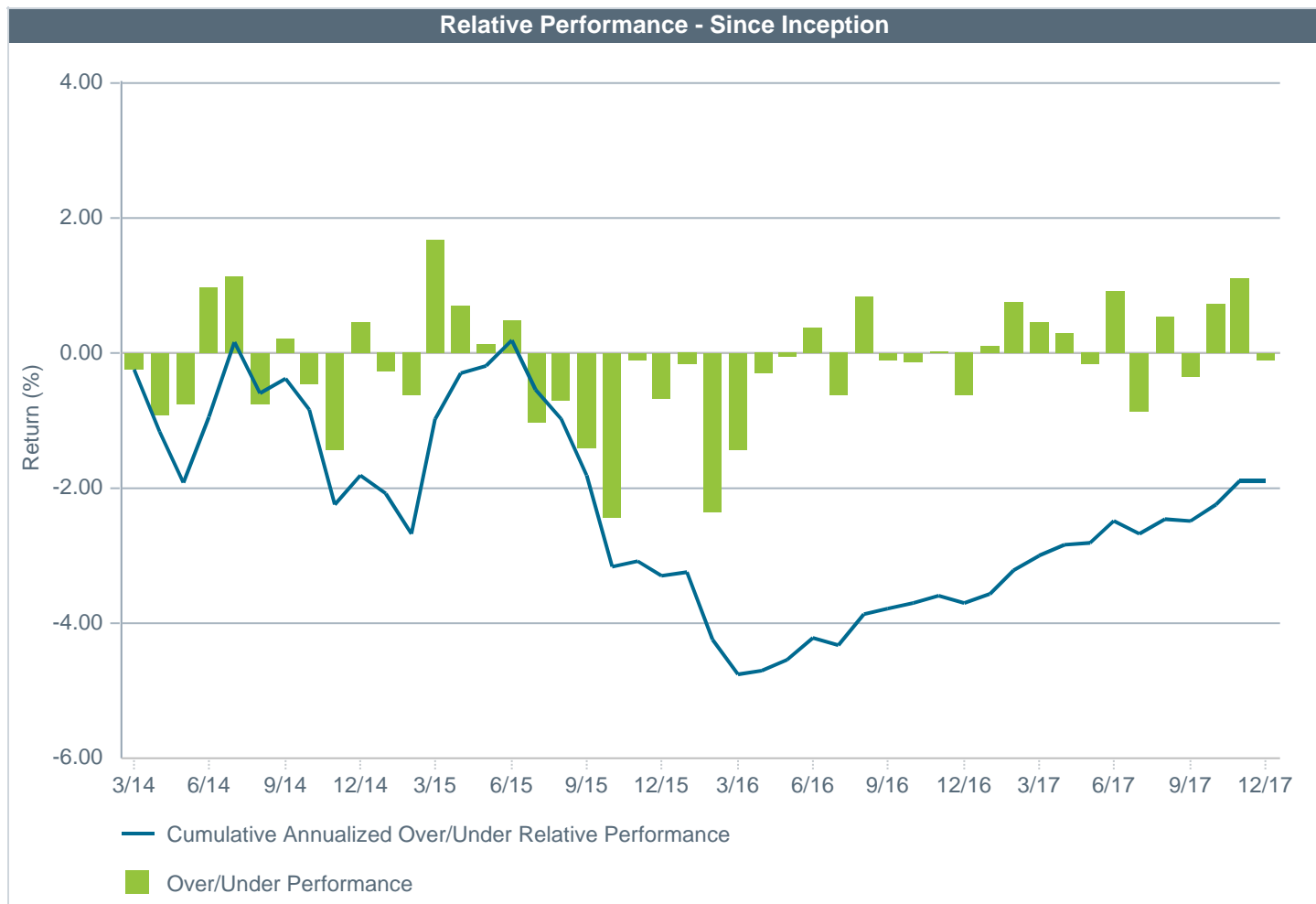
Manager: MS Convergent (CF) (Lagged-1 Mo)

As of December 31, 2017

Benchmark: BofA ML 3 Mo US T-Bill Index+3% (1 Mo Lag)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	2.76	7.39	1.51	N/A	N/A	N/A	-1.27	-1.34	N/A	N/A	N/A
Benchmark	1.00	3.81	3.39	3.26	3.21	3.42	3.33	3.02	3.05	3.08	3.10
Difference	1.76	3.58	-1.88	N/A	N/A	N/A	-4.60	-4.36	N/A	N/A	N/A

Historical Statistics - 3 Years					Actual Correlation - 3 Years	
					Actual Correlation	
MS Convergent (CF) (Lagged-1 Mo)	Russell 3000 (Blended) (R)	MSCI ACW Ex US IMI (Blended)	Fixed Income Custom Index (R)		Manager Benchmark	0.29
Standard Deviation	3.05	10.09	11.77	2.40	S&P 500 Index (Cap Wtd)	-0.21
Sharpe Ratio	0.38	1.06	0.71	1.19	Russell 2000 Index	-0.02
Downside Risk	2.13	5.69	7.17	1.30	MSCI EAFE Index (USD) (Net)	-0.17
Excess Return	1.14	10.69	8.36	2.84	MSCI Emg Mkts Index (USD) (Net)	-0.05
					Bloomberg US Agg Bond Index	-0.11
					Bloomberg US Trsy US TIPS Index	-0.13
					Wilshire US REIT Index	-0.28
					HFRI FOF Comp Index	0.17
					Bloomberg Cmtty Index (TR)	0.09
					BofA ML 3 Mo US T-Bill Index	0.26
					Cons Price Index (Unadjusted)	0.29



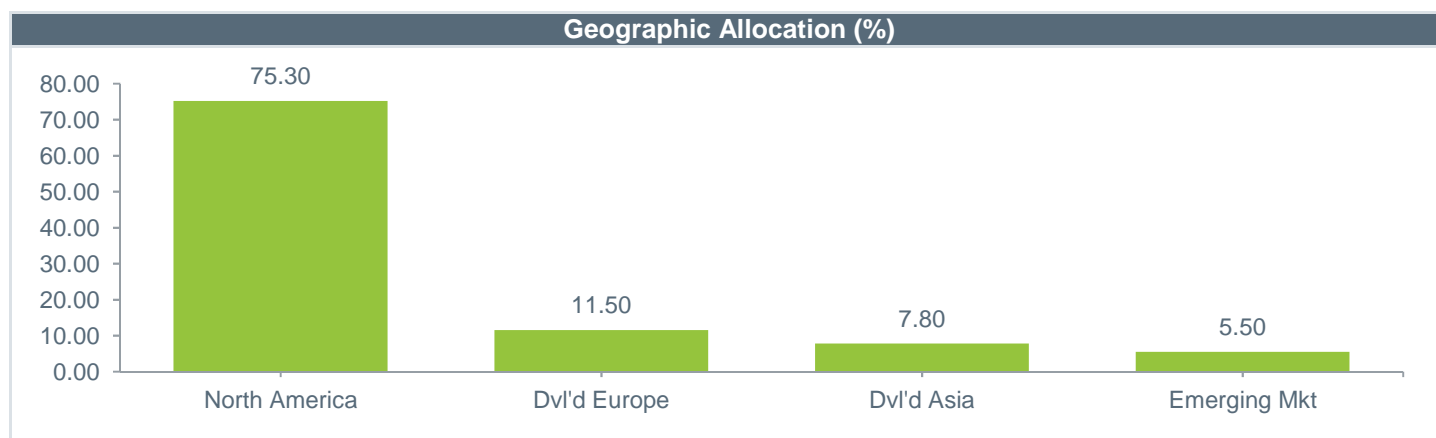
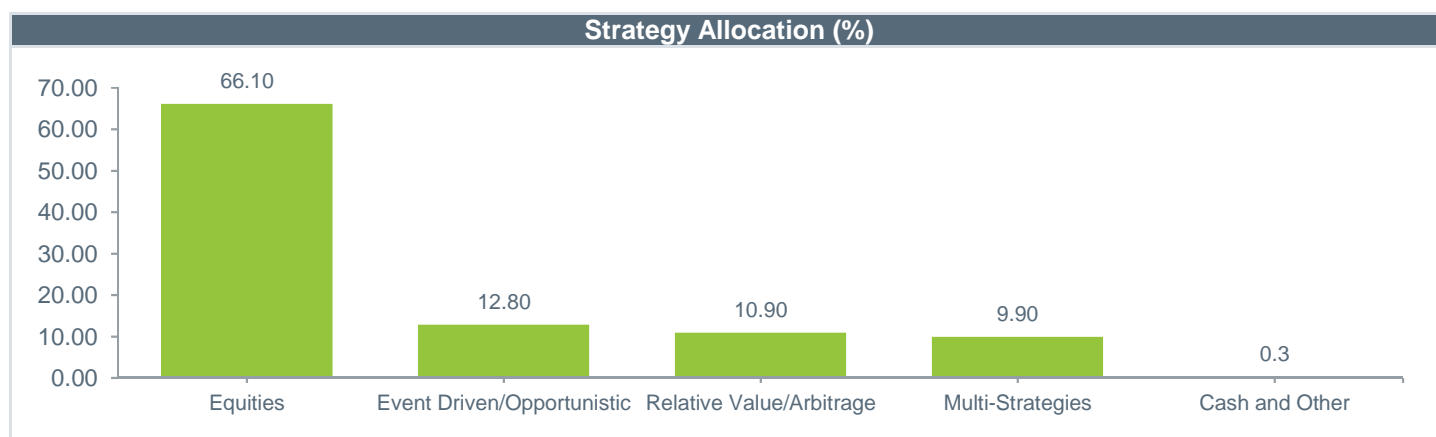
Performance shown is net of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity.



Investment Strategy
Morgan Stanley AIP seeks to provide superior performance with minimal principal loss over a complete investment cycle. The fund attempts to achieve its objective principally through investing in a diversified portfolio of investment funds managed by third party investment strategies who employ a variety of investment strategies.

Firm Statistics	
Year Firm Established	2000
Firm AUM (\$B)	\$24
Percentage Employee Owned	0.00%

Fund Statistics	
Fund Inception	2014
Fund Size (\$M)	\$92
Number of Underlying Managers	22
Maximum Weighting of an Underlying Manager	6.00%
Current Leverage (Assets/Equity)	None
Annual Manager Turnover	11.00%
Annual Management Fee	0.77%
Performance Fee	No
Hurdle	No
Initial Lock-Up Period	No
Redemption Frequency	Monthly
Notification Period	N/A



Fund statistics shown are provided by the investment manager and are as of the most recently available quarter end. Actual management and performance fees and other terms may vary based on the invested assets or other manager concessions.

Morgan Stanley Underlying Manager Allocations

Equity L/S Opportunistic	Allocation (%)
Anchor Bolt Offshore Fund, Ltd.	6.3
Atlas Enhanced Fund, Ltd.	5.4
Shellback Offshore Fund, Ltd.	5.0
Pleiad Asia Offshore Feeder Fund	4.4
Spitfire Qualified Fund Ltd. (The)	3.5
Tide Point Offshore Fund, Ltd.	3.4
Castle Hook Offshore Fund Ltd.	3.3
Ailanthus Capital Partners, Ltd.	3.0
Quentec Fund, Ltd.	2.5
<b>Subtotal</b>	<b>36.7</b>

Event Driven Equity	Allocation (%)
Third Point Offshore Fund, Ltd.	8.2
Sachem Head Offshore Ltd.	4.7
<b>Subtotal</b>	<b>12.8</b>

Equity L/S High Hedge	Allocation (%)
Millennium International, Ltd.	6.5
Atlas Fundamental Trading Fund, Ltd.	5.2
Citadel Global Equities Fund Ltd.	4.2
<b>Subtotal</b>	<b>15.9</b>

Statistical Arbitrage	Allocation (%)
Renaissance Institutional Equities Fund Int'l L.P.	6.5
GSA QMS Fund Limited	3.6
HBK Quantitative Strategies Offshore Fund L.P.	3.4
<b>Subtotal</b>	<b>13.5</b>

Mortgage Arbitrage	Allocation (%)
Shelter Growth Opportunities Fund Ltd.	5.5
SPM Core Offshore Fund, Ltd.	3.3
Rimrock Structured Product (Cayman) Fund, Ltd.	2.1
<b>Subtotal</b>	<b>10.9</b>

Multi Strategy	Allocation (%)
Citadel Kensington Global Strategies Fund Ltd.	5.6
HBK Multi-Strategy Offshore Fund Ltd.	4.3
<b>Subtotal</b>	<b>9.9</b>

<b>Cash and Other</b>	<b>0.3</b>
-----------------------	------------

Strategy Allocation	New	Terms/Trans
Distressed	0	0
Equity L/S High Hedge	0	2
Equity L/S Opportunistic	3	2
Event Driven Credit	0	0
Event Driven Equity	0	0
Merger/Risk Arbitrage	0	0
Mortgage Arbitrage	0	0
Multi Strategy	0	1
Relative Value Credit	0	0
Statistical Arbitrage	0	1
<b>YTD Turnover</b>	<b>3</b>	<b>6</b>

Underlying manager allocations may not sum to 100% because funds that make up less than 1% of NAV are excluded.

## Hedge Funds Statistics

## Investment Strategy

BAAM manages a custom discretionary Hope Street fund on the behalf of LADWP. Hope Street is a broadly diversified portfolio designed to provide downside capital protection and achieve the portfolio objective of the 90-day T-Bill + 3% over a full market cycle. The portfolio is designed to maintain low volatility vs. the global equity markets.

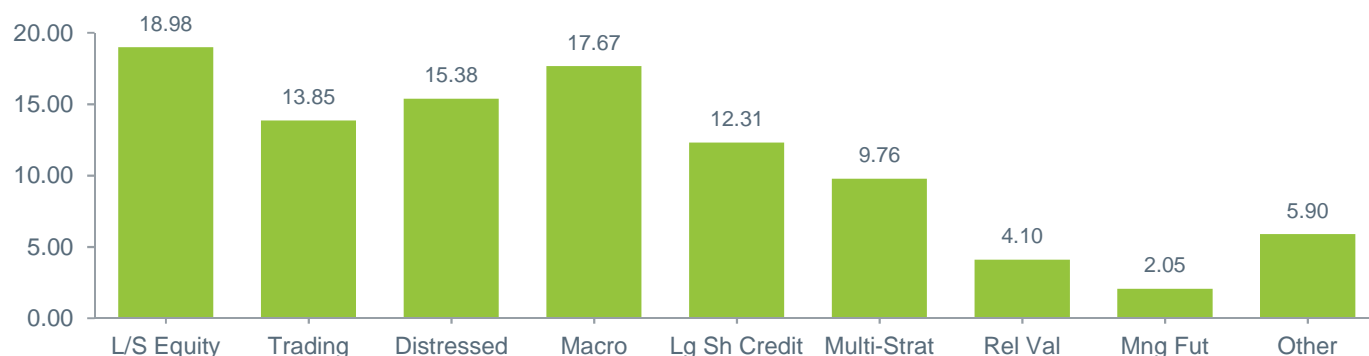
## Firm Statistics

Year Firm Established	1990
Firm AUM (\$B)	\$74
Percentage Employee Owned	48.00%

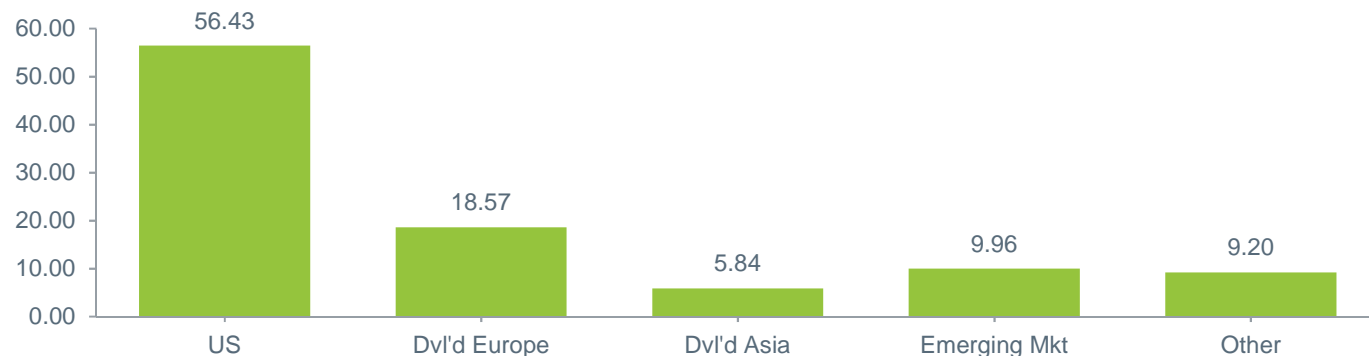
## Fund Statistics

Fund Inception	2017
Fund Size (\$M)	\$488
Number of Underlying Managers	33
Maximum Weighting of an Underlying Manager	7.20%
Current Leverage (Assets/Equity)	3.6
Annual Manager Turnover	N/A
Annual Management Fee	0.60%
Performance Fee	12.00%
Hurdle	4.40%
Initial Lock-Up Period	No
Redemption Frequency	Daily
Notification Period	60 '

## Strategy Allocation (%)



## Geographic Allocation (%)



Strategy Allocation to "Other" includes cash, hedging, and other expenses. Geographic Allocation to "Other" includes Canada, Latin America, and Non-Developed Europe. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end.

**Blackstone Hope Street Fund LP (CF) Underlying Manager Allocations**

<b>Equities</b>	<b>Allocation (%)</b>
Glenview Inst Ptr LP	4.1
HealthCor, L.P.	3.9
Alyeska 2 LP	5.7
Covalis Enhanced LP	4.3
Renaissance RIDA LLC	4.9
Trexquant LP	3.3
BlackRock GlobAlp LP	3.0
<b>Subtotal</b>	<b>29.2</b>

<b>Credit</b>	<b>Allocation (%)</b>
SilverRock CSP LP	3.5
Varde Skyway L.P.	7.2
Solus Sola LLC(1)	4.1
Contrarian CSP LP	4.0
Bayview RMBS LP	7.2
Shelter Growth OppLP	4.0
EMSO Rose Ltd.	5.1
<b>Subtotal</b>	<b>35.1</b>

<b>Multi-Strategies</b>	<b>Allocation (%)</b>
Magnetar Andrmda LLC(1)	7.1
Elliott Assocs LP	1.9
<b>Subtotal</b>	<b>9.0</b>

<b>Macro</b>	<b>Allocation (%)</b>
FI Trading Pod LP	18.1
GSA Trend SMA CSP LP	2.3
<b>Subtotal</b>	<b>20.4</b>

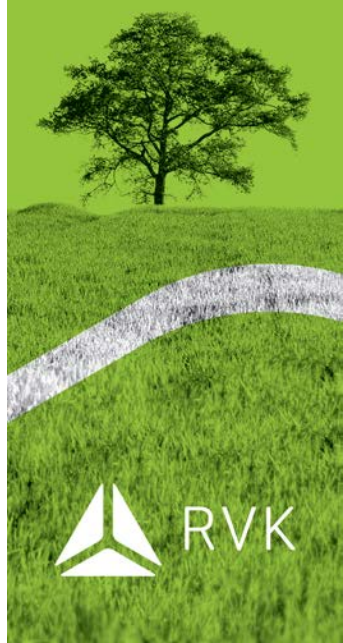
<b>Event Driven/Opportunistic</b>	<b>Allocation (%)</b>
BSOF Feeder LP-Mgr & Parallel Investment	1.4
<b>Subtotal</b>	<b>1.4</b>

<b>Cash &amp; Other</b>	<b>Allocation (%)</b>
Cash	4.9
<b>Subtotal</b>	<b>4.9</b>

**Turnover**

<b>Strategy Allocation</b>	<b>New</b>	<b>Terms/Trans</b>
Relative Value / Arbitrage	0	0
Multi-Strategy	0	0
Macro	0	0
Event Driven / Opportunistic	0	0
Equities	0	0
Credit	0	0
Cash and Other	0	0
<b>YTD Turnover</b>	<b>0</b>	<b>0</b>

# Appendix



**As stated in Section IV of the Investment Policy:**

The purpose of a watch list is to focus attention and discussion on the managers that need it - due to difficulties or changes. However, being placed on the watch list does not suggest termination is imminent, as all managers, even top performers, experience some periods of underperformance. An investment manager/portfolio attains watch status if at least one of two events occurs:

- (i) the portfolio's rolling 60 month net return is less than the benchmark's return at two consecutive calendar quarter end dates, or
- (ii) after the Portfolio Review is conducted, Investment Staff and/or the investment consultant recommends to the Board that an investment manager is a candidate for watch status.

However, a manager with less than 60 months of performance with the Plan may be placed on watch for material underperformance relative to the benchmark. An investment manager/portfolio may also be placed on watch at any time as a result of qualitative factors, including but not limited to:

- Violation of investment guidelines
- Deviation from stated investment style and/ or shifts in the firm's philosophy or process
- Turnover of one or more key personnel
- Change in firm ownership or structure
- Significant loss of clients and/or assets under management
- Significant and persistent lack of responsiveness to client requests
- Litigation
- Failure to disclose significant information, including potential conflicts of interest
- Chronic violations of the Plan's Investment Policy
- Any other issue or situation of which the Investment Staff, the Advisory Consultant and/or Board become aware that is deemed material.

**Water and Power Employees' Retirement Plan**  
**Historical Policy Benchmark - Retirement**

**As of December 31, 2017**

Time Period	Asset Class	Target	Change	Policy Benchmarks
12/1/2017 - Present (Updated Interim Targets)	Domestic Equity	33%	-1.25%	Russell 3000
	International Equity	19%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	26%	-2.75%	Fixed Income Custom Index (R)
	Real Return	5%	-	CPI+3%
	Hedge Funds	5%	+3%	T-Bill + 3% Lag
	Real Estate	6%	+1%	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Cash	1%	-	T-Bill
2/1/2016 - Present (Interim Targets)	Domestic Equity	34.25%	+1.25%	Russell 3000
	International Equity	19%	-2%	MSCI ACWI ex U.S. IMI
	Fixed Income	28.75%	+4.75%	Fixed Income Custom Index (R)
	Real Return	5%	-1%	CPI+3%
	Hedge Funds	2%	+2%	T-Bill + 3% Lag
	Real Estate	5%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Cash	1%	-	T-Bill
9/1/2015 - 1/31/2016	Domestic Equity	33%	-	Russell 3000
	International Equity	21%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	24%	-	Fixed Income Custom Index (R)
	Real Return	6%	-	CPI+3%
	Real Estate	5%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Covered Calls	5%	-	CBOE BXM
	Cash	1%	-	T-Bill
10/1/2014 - 8/31/2015	Domestic Equity	33%	-	Russell 3000
	International Equity	21%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	24%	-	B Universal
	Covered Calls	5%	-	CBOE BXM
	Real Estate	5%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Real Return	6%	-	CPI+3%
	Cash	1%	-	T-Bill
7/1/2013 - 9/30/2014	Domestic Equity	33%	-1%	Russell 3000
	International Equity	21%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	24%	-1%	B Universal
	Covered Calls	5%	-	CBOE BXM
	Real Estate	5%	+1%	NCREIF + 0.5% Lag
	Private Equity	5%	+1%	Russell 3000 + 3% Lag
	Real Return	6%	-	CPI+3% Lag
	Cash	1%	-	T-Bill
4/1/2012-6/30/2013	Domestic Equity	34%	-1%	Russell 3000
	International Equity	21%	-1%	MSCI ACWI ex U.S. IMI
	Fixed Income	25%	-8%	B Universal
	Covered Calls	5%	+5%	CBOE BXM
	Real Estate	4%	+2%	NCREIF + 0.5% Lag
	Private Equity	4%	+2%	Russell 3000 + 3% Lag
	Real Return	6%	+1%	T-Bill + 3% Lag
	Cash	1%	-	T-Bill

Please see the Addendum for custom index definitions.



**Water and Power Employees' Retirement Plan**  
**Historical Policy Benchmark - Retirement**

**As of December 31, 2017**

Time Period	Asset Class	Target	Change	Policy Benchmarks
10/1/2011-3/31/2012	Domestic Equity	35%	+1%	Russell 3000
	International Equity	22%	+2%	MSCI ACWI ex U.S. IMI
	Fixed Income	33%	-	B Universal
	Real Estate	2%	-2%	NCREIF + 0.5% Lag
	Private Equity	2%	-1%	Russell 3000 + 3% Lag
	Real Return	5%	-	T-Bill + 3% Lag
	Cash	1%	-	T-Bill
10/1/2010-9/30/2011	Domestic Equity	34%	+1%	Russell 3000
	International Equity	20%	+3%	MSCI ACWI ex U.S. IMI
	Fixed Income	33%	-7%	B Universal
	Real Estate	4%	+1%	NCREIF + 0.5% Lag
	Private Equity	3%	+1%	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Real Return	5%	+2%	T-Bill + 3% Lag
	Cash	1%	-1%	T-Bill
7/1/2009-9/30/2010	Domestic Equity	33%	-7%	Russell 3000
	International Equity	17%	-7%	MSCI ACWI ex U.S. IMI
	Fixed Income	40%	+10%	B Universal
	Real Estate	3%	+1%	NCREIF + 0.5% Lag
	Private Equity	2%	+1%	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Real Return	3%	+1%	T-Bill + 3% Lag
	Cash	2%	+1%	T-Bill
1/1/2009-6/30/2009	Domestic Equity	40%	-	Russell 3000
	International Equity	24%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	30%	-	B Universal
	Real Estate	2%	-	NCREIF + 0.5% Lag
	Private Equity	1%	-	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Real Return	2%	-	T-Bill + 3% Lag
	Cash	1%	-	T-Bill
7/1/2008-12/31/2008	Domestic Equity	40%	-	Russell 3000
	International Equity	24%	+9%	MSCI ACWI ex U.S.
	Fixed Income	30%	-5%	B Universal
	Real Estate	2%	-2%	NCREIF + 0.5% Lag
	Private Equity	1%	-3%	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Real Return	2%	+1%	T-Bill + 3% Lag
	Cash	1%	-	T-Bill
3/1/2007-6/30/2008	Domestic Equity	40%	-	Russell 3000
	International Equity	15%	-	MSCI ACWI ex U.S.
	Fixed Income	35%	-	B Universal
	Real Estate	4%	-	NCREIF + 0.5% Lag
	Private Equity	4%	-1%	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Real Return	1%	+1%	T-Bill + 3% Lag
	Cash	1%	-	T-Bill

**Water and Power Employees' Retirement Plan**  
**Historical Policy Benchmark - Retirement**

**As of December 31, 2017**

Time Period	Asset Class	Target	Change	Policy Benchmarks
1/1/2007-2/28/2007	Domestic Equity	40%	-	Russell 3000
	International Equity	15%	-	MSCI ACWI ex U.S.
	Fixed Income	35%	-	B Universal
	Real Estate	4%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Cash	1%	-	T-Bill
4/1/2003-12/31/2006	Domestic Equity	40%	-20%	Russell 3000
	International Equity	15%	+15%	MSCI ACWI ex U.S.
	Fixed Income	35%	+5%	B Universal
	Cash	1%	-9%	T-Bill
	Real Estate	4%	+4%	The Plan had allocated 5% to Alternatives and 4% to Real Estate asset classes. Since both of these
	Alternatives	5%	+5%	
Thru 3/31/2003	Domestic Equity	60%	-	S&P 500
	Fixed Income	30%	-	Citigroup BIG
	Cash	10%	-	Citigroup T-Bill

**Water and Power Employees' Retirement Plan**  
**Historical Policy Benchmark - Health**

**As of December 31, 2017**

Time Period	Asset Class	Target	Change	Policy Benchmarks
12/1/2017 - Present (Updated Interim Targets)	Domestic Equity	33.00%	-1.25%	Russell 3000
	International Equity	19%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	26.00%	-2.75%	Fixed Income Custom Index (H)
	Real Return	5%	-	CPI+3%
	Hedge Funds	5%	+3%	T-Bill + 3% Lag
	Real Estate	6%	+1%	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Cash	1%	-	T-Bill
2/1/2016 - Present (Interim Targets)	Domestic Equity	34.25%	+1.25%	Russell 3000
	International Equity	19%	-2%	MSCI ACWI ex U.S. IMI
	Fixed Income	28.75%	+4.75%	Fixed Income Custom Index (H)
	Real Return	5%	-1%	CPI+3%
	Hedge Funds	2%	+2%	T-Bill + 3% Lag
	Real Estate	5%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Cash	1%	-	T-Bill
9/1/2015 - 1/31/2016	Domestic Equity	33%	-	Russell 3000
	International Equity	21%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	24%	-	Fixed Income Custom Index (H)
	Covered Calls	5%	-	CBOE BXM
	Real Estate	5%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Real Return	6%	-	CPI+3%
	Cash	1%	-	T-Bill
10/1/2014 - 8/31/2015	Domestic Equity	33%	-	Russell 3000
	International Equity	21%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	24%	-	B Universal
	Covered Calls	5%	-	CBOE BXM
	Real Estate	5%	-	NCREIF + 0.5% Lag
	Private Equity	5%	-	Russell 3000 + 3% Lag
	Real Return	6%	-	CPI+3%
	Cash	1%	-	T-Bill
7/1/2013 - 9/30/2014	Domestic Equity	33%	-2%	Russell 3000
	International Equity	21%	-	MSCI ACWI ex U.S. IMI
	Fixed Income	24%	-2%	B Universal
	Covered Calls	5%	-	CBOE BXM
	Real Estate	5%	+2%	NCREIF + 0.5% Lag
	Private Equity	5%	+2%	Russell 3000 + 3% Lag
	Real Return	6%	-	CPI + 3% Lag
	Cash	1%	-	T-Bill
4/1/2012-6/30/2013	Domestic Equity	35%	-1%	Russell 3000
	International Equity	21%	+1%	MSCI ACWI ex U.S. IMI
	Fixed Income	26%	-10%	B Universal
	Covered Calls	5%	+5%	CBOE BXM
	Real Estate	3%	+2%	NCREIF + 0.5% Lag
	Private Equity	3%	+2%	Russell 3000 + 3% Lag
	Real Return	6%	+1%	T-Bill + 3% Lag
	Cash	1%	-	T-Bill
10/1/2011-3/31/2012	Domestic Equity	36%	+2%	Russell 3000
	International Equity	20%	+2%	MSCI ACWI ex U.S. IMI
	Fixed Income	36%	-6%	B Universal
	Real Estate	1%	+1%	NCREIF + 0.5% Lag
	Private Equity	1%	-	Russell 3000 + 3% Lag
	Real Return	5%	+2%	T-Bill + 3% Lag
	Cash	1%	-1%	T-Bill

Please see the Addendum for custom index definitions.

**Water and Power Employees' Retirement Plan**  
**Historical Policy Benchmark - Health**

**As of December 31, 2017**

Time Period	Asset Class	Target	Change	Policy Benchmarks
7/1/2010-9/30/2011	Domestic Equity	34%	-3%	Russell 3000
	International Equity	18%	+3%	MSCI ACWI ex U.S. IMI
	Fixed Income	42%	-3%	B Universal
	Private Equity	1%	-	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Real Return	3%	+3%	T-Bill + 3% Lag
	Cash	2%	-	T-Bill
10/1/09-6/30/10	Domestic Equity	37%	-23%	Russell 3000
	International Equity	15%	+15%	MSCI ACWI ex U.S. IMI
	Fixed Income	45%	+5%	B Universal
	Private Equity	1%	+1%	85% Cambridge U.S. Private Equity Lag / 15% Cambridge U.S. Venture Capital Lag
	Cash	2%	+2%	T-Bill
Thru 9/30/2009	Domestic Equity	60%	-	Russell 3000
	Fixed Income	40%	-	B Universal

**Water and Power Employees' Retirement Plan**  
**Summary of Retirement Plan Transitions**

**As of December 31, 2017**

Manager	Mandate	Funded	Terminated
2017			
LaSalle Asia V	Real Estate	4Q 2017	
Blackstone Hope St. LP	Hedge Fund	3Q 2017	
EnCap XI	Private Equity	3Q 2017	
Silver Lake V	Private Equity	1Q 2017	
CD&R X	Private Equity	1Q 2017	
2016			
FPA Core Plus III	Real Estate	4Q 2016	
Adams Street SMB I	Private Equity	4Q 2016	
Wellington Emerging	Emerging Markets	3Q 2016	
DRA G&I IX	Real Estate	3Q 2016	
Industry Ventures VIII	Private Equity	2Q 2016	
Industry Ven SP Opp III-A	Private Equity	2Q 2016	
Lone Star V	Real Estate	2Q 2016	
Mesa West IV	Real Estate	1Q 2016	
Westbrook X	Real Estate	1Q 2016	
Vista VI	Private Equity	1Q 2016	
2015			
Emerald Small Cap Growth (SA)	Small Cap Growth	4Q 2015	
Ares V	Private Equity	4Q 2015	
Harvest VII	Private Equity	4Q 2015	
JP Morgan Principal Protection (SA)	Principal Protection	3Q 2015	
Wells Principal Protection (SA)	Principal Protection	3Q 2015	
Macquarie Unconstrained (SA)	Extended Credit	3Q 2015	
Neuberger Unconstrained (SA)	Extended Credit	3Q 2015	
Pacific Asset Bank Loans (SA)	Bank Loans	3Q 2015	
Harrison Street Core	Real Estate	3Q 2015	
Jamestown Premier	Real Estate	2Q 2015	
Lone Star IV	Real Estate	2Q 2015	
Blackstone Tactical Opps	Private Equity	2Q 2015	
EnCap X	Private Equity	1Q 2015	
2014			
Torchlight Debt Opp V	Real Estate	4Q 2014	
Ares Special Situation IV	Private Equity	4Q 2014	
Almanac VII	Real Estate	4Q 2014	
Crestview Partners III	Private Equity	3Q 2014	
Prologis USLH	Real Estate	3Q 2014	
DRA G&I VIII	Real Estate	3Q 2014	
Molpus IV	Real Return	3Q 2014	
Hancock	Timber	2Q 2014	
Vista Equity V	Private Equity	2Q 2014	
CD&R IX	Private Equity	2Q 2014	
Landmark XV	Private Equity	1Q 2014	
Apollo VIII	Private Equity	1Q 2014	
Morgan Stanley	Hedge Fund	1Q 2014	
Brep Europe IV	Real Estate	1Q 2014	
2013			
GAM	Hedge Fund	4Q 2013	
Silver Lake IV	Private Equity	4Q 2013	
Heitman	Real Estate	4Q 2013	
Invesco Commodity	Commodities	3Q 2013	
Mesa West Fund III	Real Estate	3Q 2013	
Torchlight Debt Opp IV	Real Estate	3Q 2013	
DFA	Real Estate	1Q 2013	
EnergyCap IX	Private Equity	1Q 2013	

**Water and Power Employees' Retirement Plan**  
**Summary of Retirement Plan Transitions**

**As of December 31, 2017**

Manager	Mandate	Funded	Terminated
2012			
Vontobel	Emerging Markets	4Q 2012	3Q 2016
AresCorp. Opp. IV	Private Equity	4Q 2012	
Bristol Value II	Real Estate	4Q 2012	
ARS VI	Real Estate	3Q 2012	
Blackstone	Real Estate	3Q 2012	
PCCP	Real Estate	3Q 2012	
L.A. Capital	Emerging Markets	3Q 2012	
MFS	Developed International	3Q 2012	
BlackRock	Developed International	3Q 2012	
Gateway (non-replication)	Covered Calls	2Q 2012	1Q 2016
Gateway (replication)	Covered Calls	2Q 2012	1Q 2016
AG Core	Real Estate	1Q 2012	
2011			
DRA	Real Estate	4Q 2011	
Vista Equity Partners IV	Private Equity	4Q 2011	
Invesco	Real Estate	3Q 2011	
Lone Star VII	Real Estate	2Q 2011	
Lone Star II	Real Estate	2Q 2011	
Audax Mezz III	Private Equity	1Q 2011	
EnergyCap VIII	Private Equity	1Q 2011	
2010			
WAMCO	GILS	2Q 2010	
JP Morgan	Core Fixed Income	2Q 2010	3Q 2015
Frontier	Small Cap Growth	2Q 2010	4Q 2015
T. Rowe Price	Large Cap Growth	2Q 2010	
Lexington VIII	Private Equity	1Q 2010	
Mesa West	Real Estate	1Q 2010	
2009			
Oaktree V	Private Equity	1Q 2009	
2008			
Landmark XIV	Private Equity	3Q 2008	
CB Richard Ellis	Private Equity	2Q 2008	Q3 2016
Fisher Lynch	Real Estate	2Q 2008	
HRJ	Private Equity	1Q 2008	
2007			
JPM Strategic	Real Estate	3Q 2007	
Prisa II	Real Estate	2Q 2007	
PAAMCO	Hedge Fund	1Q 2007	4Q 2010
Aetos	Hedge Fund	1Q 2007	2Q 2013

**Water and Power Employees' Retirement Plan**  
**Summary of Retirement Plan Transitions**

**As of December 31, 2017**

Manager	Mandate	Funded	Terminated
2006			
Prisa	Real Estate	4Q 2006	
Landmark XIII	Private Equity	4Q 2006	
Paradigm	Small Cap Growth	3Q 2006	1Q 2010
Northpointe	Small Cap Growth	3Q 2006	2Q 2009
Lexington VI	Private Equity	3Q 2006	
2005			
Boston Company	Large Cap Active		1Q 2005
T. Rowe Price	Emerging Markets	1Q 2005	3Q 2011
Boston Company	Emerging Markets	1Q 2005	4Q 2011
Loomis Sayles	High Yield	1Q 2005	3Q 2015
Boston Company	International	1Q 2005	4Q 2011
2004			
Wells Capital	High Yield	4Q 2004	3Q 2015
Pyramis (formerly Fidelity)	International	4Q 2004	
Earnest Partners	Small Cap Value	4Q 2004	
Bank of New York	Small Cap Growth	4Q 2004	1Q 2006
Wells Capital	Core Fixed Income	3Q 2004	3Q 2015
ING/Aeltus	Core Fixed Income	3Q 2004	4Q 2009
T. Rowe Price	Large Cap Value	3Q 2004	
Invesco	International	2Q 2004	4Q 2011
MFS	Large Cap Value	1Q 2004	
Intech	Large Cap Growth	1Q 2004	3Q 2009
Fred Alger	Large Cap Growth	1Q 2004	
2003			
Northern Trust	Passive Core	3Q 2003	1Q 2005
BlackRock (formerly Merrill Lynch)	Passive Core	3Q 2003	

**Water and Power Employees' Retirement Plan**  
**Hedge Funds Characteristics and Terms**

Strategy	Definition
<b>Relative Value</b>	
Convertible Arbitrage	Seeks to profit from pricing anomalies between a company's convertible securities and its equity. A manager buys the convertible instrument (often a bond) and sells short the common stock.
Fixed Income/Credit Arbitrage	Exploits pricing inefficiencies between fixed income securities with similar characteristics, such as corporate vs. Treasury yield spreads. Offsetting long and short positions typically neutralize exposure to interest rate risk, isolating the pricing discrepancy.
Equity Market Neutral	Exploits relative pricing inefficiencies between equity securities while neutralizing market exposure. Typically the net (total long and short) portfolio exposure is balanced so that there is no directional bias to equity sectors or styles.
<b>Event Driven</b>	
Risk/Merger Arbitrage	Invests in the shares of companies involved in mergers, acquisitions, and LBOs. A common merger arbitrage strategy is to buy the equity of the "target" and sell short the equity of the "acquirer," making a profit if the deal outcome (and timing) is in line with the manager's positioning.
Distressed Securities	Managers pursuing this strategy invest in bank debt, corporate debt, trade claims, common stock, and warrants of companies either in bankruptcy or having financial or operational issues. The goal is to anticipate how corporate events (such as bankruptcies, reorganizations, distressed sales, and restructurings to reverse negative trends) will impact the underlying securities.
<b>Opportunistic</b>	
Global Macro	Employs a "top down" approach to invest across a wide range of global asset classes based on forecasted changes in global economies, political fortunes, or global supply and demand for resources.
Short Selling	Taking short positions in stocks in anticipation of a price decline, based on a view that the stock is overvalued, company earnings will disappoint, or there is a market selloff approaching.
Emerging Markets	Generally long-biased equity or debt positions that seek to capitalize on the undervaluation of companies in developing countries, which tend to have higher inflation and volatile growth.
Long/Short Equity	Core holding of long equities hedged to varying degrees with short positions in stocks or derivatives.



**Performance Related Comments**

- Performance shown is gross of fees, except where noted.
- Performance and data are provided by Northern Trust.
- RVK began monitoring the assets of Water and Power Employees' Retirement Plan as of 12/31/2014.

**Custom Index Comments**

- The Retirement Policy Benchmark returns shown prior to 12/31/2014 were provided by Northern Trust. The passive index is calculated monthly and currently consists of 33% Russell 3000 (Blended) (R), 19% MSCI ACWI Ex US IM Index (Blended), 26% Fixed Income Custom Index (R), 5% CPI+3% (Blended), 5% BofA ML 3 Mo US T-Bill Index+3%, 6% NCREIF Property Index+0.5% (Lagged-1 Qtr), 5% Russell 3000+3% (Blended), and 1% BofA ML 3 Mo US T-Bill Index.
- The Russell 3000 (Blended) (R) consists of the S&P 500 Index (Cap Wtd) through 03/31/2013 and the Russell 3000 Index thereafter.
- The MSCI ACWI Ex US IM Index (Blended) consists of the MSCI ACW Ex US Index (USD) (Net) through 12/31/2008 and the MSCI ACW Ex US IM Index (Net) thereafter.
- The Fixed Income Custom Index (R) is calculated monthly and consists of the Bloomberg US Universal Bond Index through 08/31/2015 and 50% Bloomberg US Intermediate Aggregate Bond Ex Credit Index, 45% 67% Bloomberg Global Credit/33% Bloomberg Global High Yield, and 5% Credit Suisse Leveraged Loan Index thereafter.
- The International Developed Blend consists of the MSCI EAFE Index (Hedged) through 12/31/2008 and the MSCI World Ex US IM Index (Net) thereafter.
- The CPI+3% (Blended) consists of the BofA ML 3 Mo US T-Bill Index+3% through 06/30/2013 and the CPI (Seasonally Adjusted) +3% thereafter.
- The Russell 3000+3% (Blended) consists of 50% Cambridge US Private Equity Index (Lagged-1 Qtr) (Monthly) and 50% Cambridge US Venture Capital Index (Lagged-1Qtr) (Monthly) through 09/30/2011 and the Russell 3000+3% (Lagged-1 Qtr) thereafter.
- The Health Policy Benchmark returns shown prior to 12/31/2014 were provided by Northern Trust. The passive index is calculated monthly and currently consists of 33% Russell 3000 (Blended) (H), 19% MSCI ACWI Ex US IM Index, 26% Fixed Income Custom Index (H), 5% CPI+3% (Blended), 5% BofA ML 3 Mo US T-Bill Index+3%, 6% NCREIF Property Index+0.5% (Lagged-1 Qtr), 5% Russell 3000+3% (Blended), and 1% BofA Merrill Lynch 3 Mo US Treasury Bill Index.
- The Russell 3000 (Blended) (H) consists of the Russell 1000 Index through 09/30/2009, and the Russell 3000 Index thereafter.
- The Fixed Income Custom Index (H) is calculated monthly and consists of the Bloomberg US Aggregate Bond Index through 10/31/2009, the Bloomberg US Universal Bond Index through 08/31/2015, and 50% Bloomberg US Intermediate Aggregate Bond Ex Credit Index, 45% 67% Bloomberg Global Credit/33% Bloomberg Global High Yield, and 5% Credit Suisse Leveraged Loan Index thereafter.
- The Death Policy Benchmark is a passive index calculated monthly and currently consists of 96% Bloomberg US Aggregate Bond Index and 4% FTSE 3 Mo Treasury Bill Index.
- The Disability Policy Benchmark is a passive index calculated monthly and currently consists of 95% Bloomberg US Aggregate Bond Index and 5% FTSE 3 Mo Treasury Bill Index.

**Miscellaneous Comments**

- In 09/2015, the Board approved a change in the Plan's target allocation that will begin implementation in early 2016. The new targets are as follows:
  - 29% Domestic Equity
  - 19% International Equity
  - 25% Fixed Income
  - 8% Real Estate
  - 8% Private Equity
  - 5% Real Return
  - 5% Hedge Funds
  - 1% Cash Equivalents
- Interim targets were approved as the plan moves towards the long-term strategic targets.

## Glossary

**Active Share** - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

**Alpha** - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

**Alpha Ratio** - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

**Average Quality** - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers) such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&amp;P</u>	<u>Moody's</u>	<u>Explanation</u>
<b>Higher Credit Quality – Investment Grade</b>			<b>Lower Credit Quality – Below Investment Grade</b>		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	B	B2	
A	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			C	Ca	
			D	C	In default

**Benchmark Effect** - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

**Beta** - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

**Box Plots** - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1<sup>st</sup> quartile, 2<sup>nd</sup> quartile, 3<sup>rd</sup> quartile, and 4<sup>th</sup> quartile). The median observation is where the 2<sup>nd</sup> quartile and 3<sup>rd</sup> quartile meet.

**Buy and Hold Attribution** - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

**Sector** - Attribution is calculated using the Global Industry Classification Standard (GICS) which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector, as defined by S&P Capital IQ data.

**Country/Region** - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data.

**Style** - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of the names are assigned to the value category.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

### Capital Markets Review -

**Breakeven Inflation** - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

**Consumer Confidence** - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

**Consumer Price Index (CPI)** - Measures the change in the price level of consumer goods and services.

**Federal Funds Rate** - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

**Option-Adjusted Spread** - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options.

**Purchasing Managers Index (PMI)** - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.



## Glossary

**Real Gross Domestic Product (Real GDP)** - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

**US Dollar Total Weighted Index** - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

**Unemployment Rate** - The percentage of the total labor force that is unemployed but actively seeking employment.

**VIX** - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

**Cash Flow Effect** - The composite's active return minus the sum of each managers' active return minus the benchmark effect.

**Consistency** - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

**Convexity** - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

**Correlation** - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

**Coupon Rate** - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

**Current Yield** - The annual income of a security divided by the security's current price.

**Down Market Capture** - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

**Downside Risk** - A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative monthly returns. The higher the factor, the riskier the product.

**Earnings Per Share** - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

**Effective Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield.

**Excess Return vs. Market** - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

**Excess Return vs. Risk Free** - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., BofA ML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

**Excess Risk** - A measure of the standard deviation of a portfolio's performance relative to the risk free return.

**Expense Ratios** - Morningstar is the source for mutual fund expense ratios.

**Gain/Loss** - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

**Indices** - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability and/or completeness.

**Information Ratio** - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

**Liability Driven Investing (LDI)** - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

**Estimated Funded Status** - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

**Estimated PV of Liabilities** - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report.

**Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

**Duration of Assets** - The dollar-weighted average duration of all the individual Plan assets.

**Estimated Plan Hedge Ratio** - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

**Modified Duration** - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

## Glossary

**Mutual Fund Performance** - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

**Net Cash Flow** - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

### Peer Groups -

**Plan Sponsor Peer Groups** - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client returns compiled from consultant and custodial data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans. Plan Sponsor Peer Groups are gross of fees.

**Institutional Peer Groups (Separate Account and Commingled Fund)** - RVK utilizes the Investment Metrics Separate Account and Commingled Fund Manager Peer Groups for peer comparison and rankings. The Separate Account and Commingled Fund Peer Group database includes performance and other quantitative data for over 1,000 investment management firms, 6,400 investment products, across 100 standard peer groups. Separate Account and Commingled Fund Peer Groups are gross of fees.

**Mutual Fund (MF) Peer Groups** - RVK utilizes the Lipper Mutual Fund Manager Peer Groups for peer comparison and rankings. The Lipper Manager Peer Group database includes performance and other quantitative data for over 700 investment management firms and 24,500 investment products, across more than 140 standard peer groups. Mutual Fund Peer Groups are net of fees.

For more information on Peer Groups, visit <https://www.invmetrics.com/style-peer-groups>.

**Percentile Rankings** - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value

100 - Lowest Statistical Value

*Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4<sup>th</sup> percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.*

**Performance Methodology** - RVK calculates performance for investment managers and composites using different methodologies.

**Investment Managers** - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of  $\geq 10\%$  of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

**Composites** - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

**Portfolio Characteristics** - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

**Price to Earnings Ratio** - The ratio of a company's share price to its per-share earnings

**Private Equity Quartile Ranks** - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

**Return** - Compounded rate of return for the period.

**% Return** - The time-weighted rate of return of a portfolio for a given period.

**R-Squared** - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

**Risk Free Benchmark** - BofA ML 3 Mo US T-Bill Index unless specified otherwise.

## Glossary

**RVK Liquidity Rating** - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

<u>Asset Class</u>	<u>RVK Liquidity Rating</u>	<u>Asset Class</u>	<u>RVK Liquidity Rating</u>
<u>Liquid Investments</u>		<u>Less Liquid Investments</u>	
T-Bills and Treasuries	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Bank Loans	50
TIPS	95	Stable Value (Plan Sponsor Directed)	50
US Large Cap Equity	95	Absolute Return Strategies	35
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Non-US Large Cap Equity	90	<u>Not Liquid Investments</u>	
Global Tactical Asset Allocation	88	Core Real Estate	25
US Small Cap Equity	85	Core Plus Real Estate	15
REITS	85	Non-Core Real Estate	5
Non-US Small Cap Equity	85	Private Equity Funds of Funds	5
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

**Sector Allocation** - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

**Sharpe Ratio** - Represents the excess rate of return over the risk-free return (i.e., BofA ML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

**Simple Alpha** - The difference between the manager's return and the benchmark's return.

**Spread Duration** - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

**Standard Deviation** - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

**Time Period Abbreviations** - QTD - Quarter-to-Date. CYTD - Calendar Year-to-Date. FYTD - Fiscal Year-to-Date. YOY - Year Over Year.

**Thematic Classification** - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

<u>Alpha</u>	<u>Capital Appreciation</u>	<u>Capital Preservation</u>	<u>Inflation</u>
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITS
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

**Total Fund Attribution** - The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

**Strategic Asset Allocation (SAA)** - The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

**Tactical Asset Allocation (TAA)** - The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

**Style Selection (SS)** - The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

**Manager's Skill (MS)** - The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

**Total Fund Beta** - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

**Tracking Error** - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

## Glossary

**Treynor Ratio** - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., BofA ML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

**Unit Value** - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

**Up Market Capture** - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolios return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

**Yield to Maturity** - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

**Yield to Worst** - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.



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