



Quarterly Investment Performance Analysis

Water and Power Employees' Retirement Plan

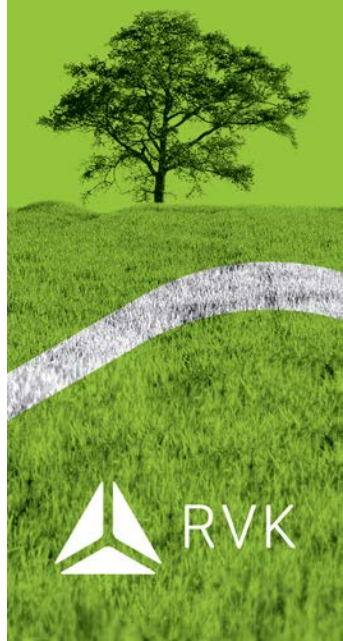
Period Ended: September 30, 2018



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Executive Summary



Capital Markets Review

Continued US economic growth and monetary policy divergence from global trade partners drove domestic equity and interest rate markets higher during the third quarter of 2018, while international growth expectations broadly continued to slow. Geopolitical risks, particularly those driven by newly imposed trade tariffs, were cited as dampening near-term expectations for economic growth outside the US. That said, near the end of the third quarter, it was announced that Canada had joined the agreement previously struck by the US and Mexico to rename and reform NAFTA, which modestly eased regional economic tensions.

The US Federal Open Market Committee (“FOMC”) continued to raise policy rates, increasing the target range for the federal funds rate to 2.00% - 2.25% at the September meeting. The committee again cited both realized and expected labor market inflation conditions as major drivers behind their decision. The rate increase was largely expected, as was the removal of the word “accommodative” from the FOMC statement language. The FOMC also increased its estimate for GDP growth in 2018 from 2.8% to 3.1%. In international monetary policy, the European Central Bank left policy rates unchanged, but the committee did note that the expansion experienced in 2017 had considerably weakened in the first half of 2018. The committee forecasted stable, but slightly lower growth than previously anticipated, with annual GDP growth expected to decrease from 2.0% in 2018 to 1.8% in 2019. Elsewhere, the Bank of Japan also left policy rates unchanged at their respective meeting, while the Bank of England increased its policy rate by 0.25%, to 0.75%.

US economic fundamentals broadly continued to strengthen over the third quarter. Hiring activity in August was revised higher, and hiring remained strong in September, resulting in a decrease of the unemployment rate to 3.7%; the lowest level since 1969. In addition, hourly earnings increased 2.8% year-over-year, while the labor participation rate remained unchanged despite a 150,000 increase in the labor force. In contrast, growth across major developed and emerging international economies generally weakened. Higher US interest rates, a stronger US dollar, and the expected impact from US tariffs, were cited as primary factors affecting economic fundamentals. Relatedly, the World Bank lowered its 2019 GDP growth estimate for the Asia Pacific region down from 6.1% to 6.0%, citing trade frictions.

US equities experienced another strong quarter of returns while international equity returns were fairly tepid by comparison. Global sovereign debt yields were mixed, with US yields rising notably against those of its major trading partners and the 10-year nominal Treasury rate ended the quarter above 3%. Market participants suggested that US real yields were driven higher by both current economic growth and expectations for the continued increase of policy rates. Local emerging market debt, meanwhile, finished the quarter with negative dollar-based returns amidst the significant depreciation of many emerging market currencies.

Total Fund

During the third quarter, the Retirement Plan outperformed its policy benchmark by 23 basis points and ranked in the 41st percentile among peers. The Health Plan outperformed its policy benchmark by 31 basis points and ranked in the 37th percentile among peers.

Over the one-year trailing period, the Retirement Plan outperformed its policy benchmark by 92 basis points, and ranked in the 36th percentile among peers. The Health Plan outperformed the policy benchmark by 115 basis points, and ranked in the 31st percentile among peers.

Domestic Equity

The Domestic Equity Composite outperformed the Russell 3000 Index for the quarter, returning 7.41% versus 7.12% for the index. This performance ranked the composite in the 13th percentile among peers. Relative outperformance was driven by strong absolute performance from the growth managers in the portfolio. Fred Alger Large Cap Growth had the highest absolute and relative performance for the quarter, returning 12.21% and outperforming the Russell 1000 Growth Index by 304 basis points. T. Rowe Price Large Cap Growth returned 7.47% for the quarter but had the lowest relative performance, underperforming the Russell 1000 Growth Index by 170 basis points. Earnest Partners Small Cap Value had the lowest absolute performance, returning 2.81% for the quarter.

International Equity

The International Equity Composite outperformed the MSCI ACW Ex US IM Index for the quarter, returning 0.98% versus 0.39% for the index. This performance ranked the composite in the 35th percentile among peers. All managers outperformed their respective benchmarks for the quarter, but relative outperformance was driven by the developed market managers. MFS Developed International had the highest absolute performance for the quarter, returning 2.37%. Wellington Emerging had the lowest absolute performance, returning -1.23% for the quarter.

Fixed Income

The Fixed Income Composite outperformed the Fixed Income Custom Index for the quarter, returning 0.74% versus 0.68% for the index. This performance ranked the composite in the 17th percentile among peers. Neuberger Unconstrained had the highest absolute and relative performance for the quarter, returning 1.97% and outperforming the 67% Bloomberg Global Credit/33% Bloomberg Global High Yield Index by 58 basis points. Wells Principal Protection had the lowest absolute performance, returning -0.05% for the quarter. Macquarie Unconstrained had the lowest relative performance returning 0.91% for the quarter and underperforming the 67% Bloomberg Global Credit/33% Bloomberg Global High Yield Index by 48 basis points.



Alternative Asset Classes

REAL RETURN

The Real Return Composite underperformed the Consumer Price Index+3% by 229 basis points during the third quarter. Invesco Commodity was the largest driver of underperformance, returning -3.13%. Hancock Timberland, Molpus IV, and WAMCO also contributed to underperformance, returning -0.63%, 0.55%, and -0.45%, respectively.

HEDGE FUNDS

The Hedge Funds Composite posted positive absolute returns but underperformed the ICE BofAML 3 Month US T-Bill Index+3% (1 Month Lag) by 45 basis points during the third quarter. Blackstone Hope St. returned 0.80% and underperformed the ICE BofAML 3 Month US T-Bill Index+3% (1 Month Lag) by 45 basis points. MS Convergent posted positive performance of 0.83%, but is undergoing liquidation and as such no longer represents a meaningful portion of the Hedge Funds Composite.

Performance shown is gross of fees, except for the hedge fund composite/managers which are net of fees.

Watch List



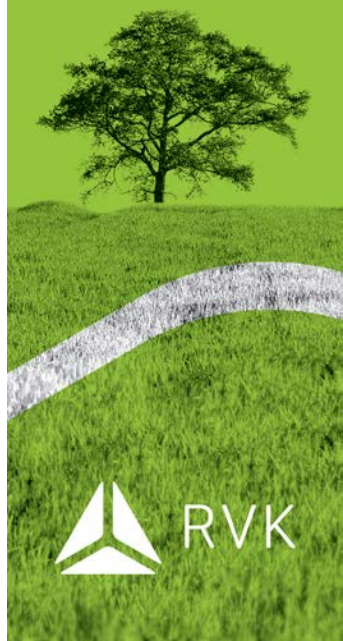
Water and Power Employees' Retirement Plan
Watch List Summary

As of September 30, 2018

Watch List Managers	Date Qualified for Watch	Date Board Approved Manager for Watch	Recent Performance					Reasons on Watch	Recommendation
			MTD	YTD	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	1.71 <i>0.56</i>	29.71 <i>17.09</i>	36.32 <i>26.30</i>	21.10 <i>20.55</i>	16.52 <i>16.58</i>	Failure to meet performance criteria.	At the 07/25/2018 meeting, the Board selected a replacement manager pending contract negotiations.
Macquarie Unconstrained (SA) <i>67% B Global Credit/33% B Global High Yield</i>	9/30/2016	11/9/2016	0.31 <i>0.46</i>	-1.19 <i>-0.29</i>	-0.33 <i>0.62</i>	4.59 <i>5.37</i>	N/A <i>N/A</i>	Organization concerns.	Performance and management are continuously being monitored. The manager last provided an update to the Board on 06/13/2018.
WAMCO (SA) <i>Bloomberg Wrld Gov't Infl Lnkd Index (Hedged)</i>	3/31/2017	4/12/2017	-0.31 <i>-0.78</i>	-0.50 <i>-0.44</i>	1.77 <i>2.06</i>	3.90 <i>3.93</i>	3.83 <i>3.80</i>	Failure to meet performance criteria.	Performance and management are continuously being monitored. The manager last provided an update to the Board on 01/24/2018.
MS Convergent (CF) (Lagged-1 Mo) - Net <i>ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)</i>	3/31/2016	6/8/2016	1.28 <i>0.43</i>	6.23 <i>3.53</i>	9.16 <i>4.56</i>	3.17 <i>3.81</i>	N/A <i>N/A</i>	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

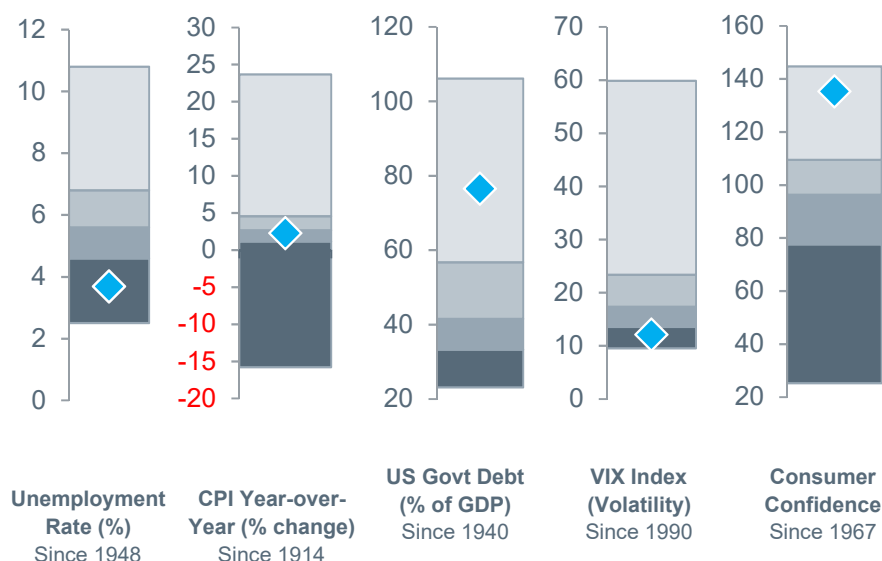


Third Quarter Economic Environment

Key Economic Indicators

Continued US economic growth and monetary policy divergence from global trade partners drove domestic equity and interest rate markets higher during the third quarter of 2018, while international growth broadly continued to slow. Geopolitical risks, particularly those driven by newly imposed trade tariffs, were cited as dampening near-term expectations for economic growth outside the US. The FOMC continued to raise policy rates, increasing the target range for the federal funds rate to 2.0% - 2.25% at the September meeting. The committee again cited both realized and expected labor market inflation conditions as major drivers behind their decision. The committee forecasted stable but slightly lower growth than previously anticipated, with annual GDP growth in 2018 expected to be 2.0% followed by a decrease in 2019 to 1.8%. US economic fundamentals broadly continued to strengthen over the third quarter. Hiring activity in August was revised higher, and hiring remained strong in September, resulting in a decline of the unemployment rate to 3.7%; the lowest level since 1969. In addition to strong employment, hourly earnings increased 2.8% year-over-year.

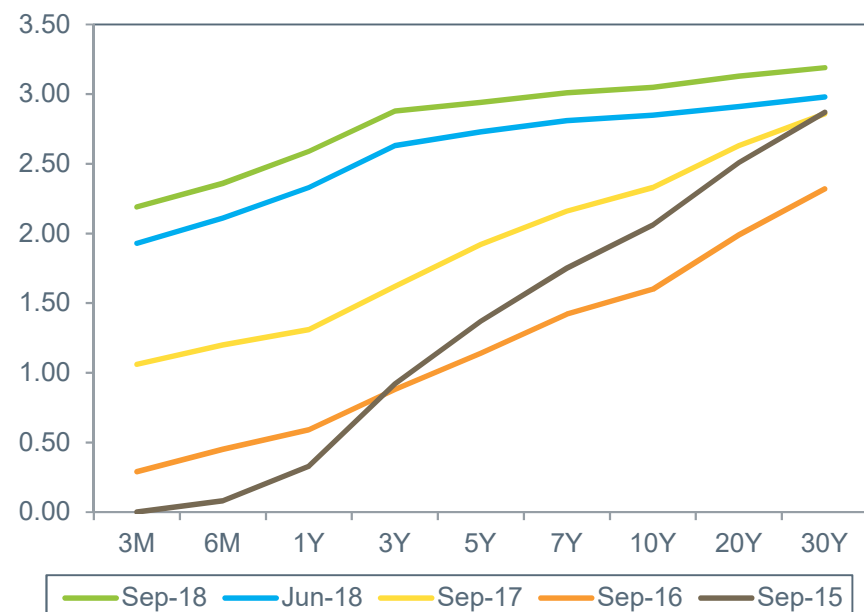
Key Economic Indicators



Economic Indicators	Sep-18	Jun-18	Sep-17	Sep-15	20 Yr
Federal Funds Rate (%)	2.18 ▲	1.91	1.06	0.07	1.97
Breakeven Infl. - 1 Yr (%)	1.18 ▼	1.42	1.24	-1.75	N/A
Breakeven Infl. - 10 Yr (%)	2.14 ▲	2.13	1.85	1.43	N/A
CPI YoY (Headline) (%)	2.3 ▼	2.9	2.2	0.0	2.2
Unemployment Rate (%)	3.7 ▼	4.0	4.2	5.0	5.9
Real GDP YoY (%)	3.0 ▲	2.9	2.3	2.4	2.3
PMI - Manufacturing	59.8 ▼	60.2	60.2	50.1	52.7
USD Total Wtd Idx	90.11 ▲	89.97	88.10	92.10	86.31
WTI Crude Oil per Barrel (\$)	73.3 ▼	74.2	51.7	45.1	59.5
Gold Spot per Oz (\$)	1,193 ▼	1,253	1,280	1,115	868

Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	7.71	10.56	17.91	13.95	11.97
Russell 2000	3.58	11.51	15.24	11.07	11.11
MSCI EAFE (Net)	1.35	-1.43	2.74	4.42	5.38
MSCI EAFE SC (Net)	-0.88	-2.19	3.73	7.96	9.68
MSCI Emg Mkts (Net)	-1.09	-7.68	-0.81	3.61	5.40
Bloomberg US Agg Bond	0.02	-1.60	-1.22	2.16	3.77
ICE BofAML 3 Mo US T-Bill	0.49	1.30	1.59	0.52	0.34
NCREIF ODCE (Gross)	2.09	6.48	8.68	10.72	5.58
FTSE NAREIT Eq REIT (TR)	0.79	1.81	3.35	9.16	7.44
HFRI FOF Comp	0.21	0.94	3.02	3.17	2.55
Bloomberg Cmtty (TR)	-2.02	-2.03	2.59	-7.18	-6.24

Treasury Yield Curve (%)



Third Quarter Review

Broad Market

US equity markets delivered broad-based gains across market capitalizations and styles during the third quarter. Despite lingering trade war tensions, the S&P 500 Index posted its best single quarter return since Q4 2013 amidst a period of strong corporate earnings and broad-based economic growth. The S&P 500 Index returned 7.7% during the third quarter, led by health care, industrials, and the re-classified communication services sector.

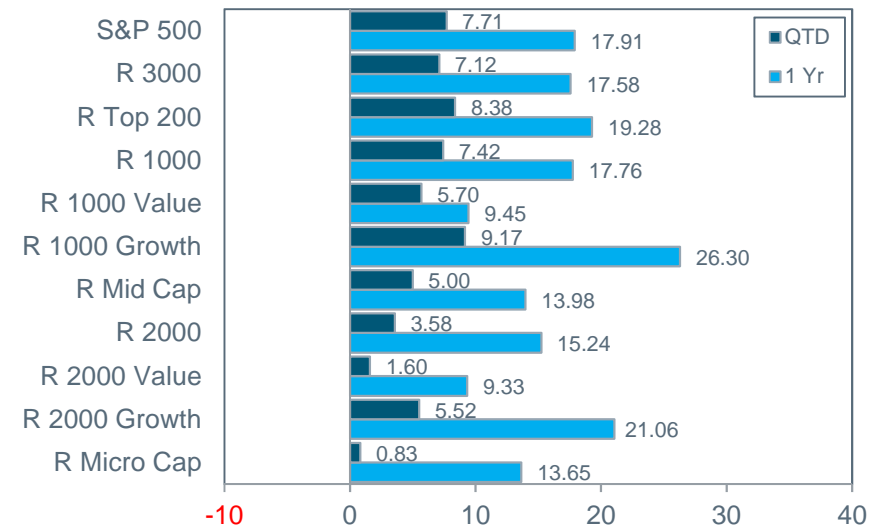
Market Cap

Despite continuing global trade tension, markets generally favored larger cap, multinational companies within the US equity markets, a reversal of last quarter.

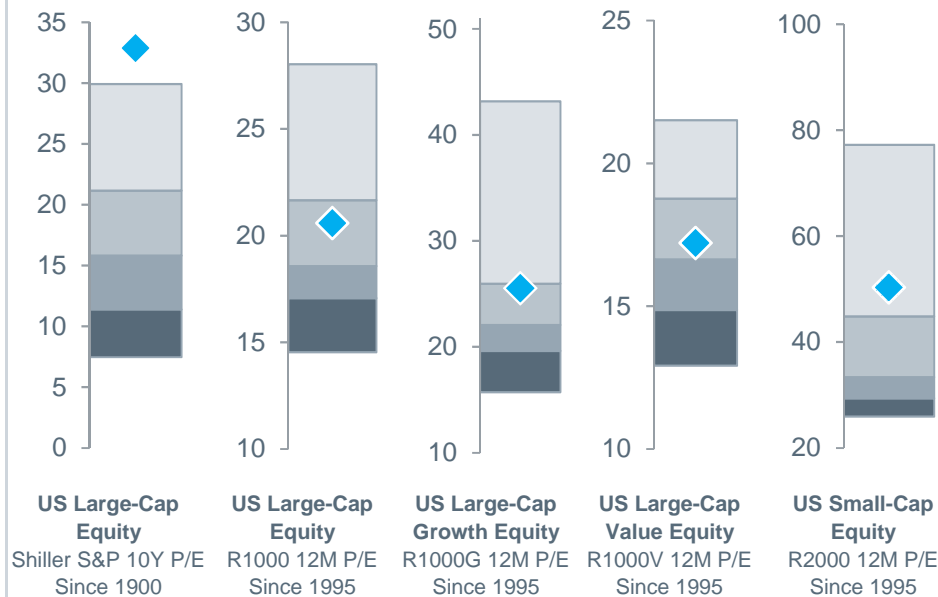
Style and Sector

Active management generally struggled in large cap equity in the third quarter, though active small cap managers fared better than their counterparts in the large cap space.

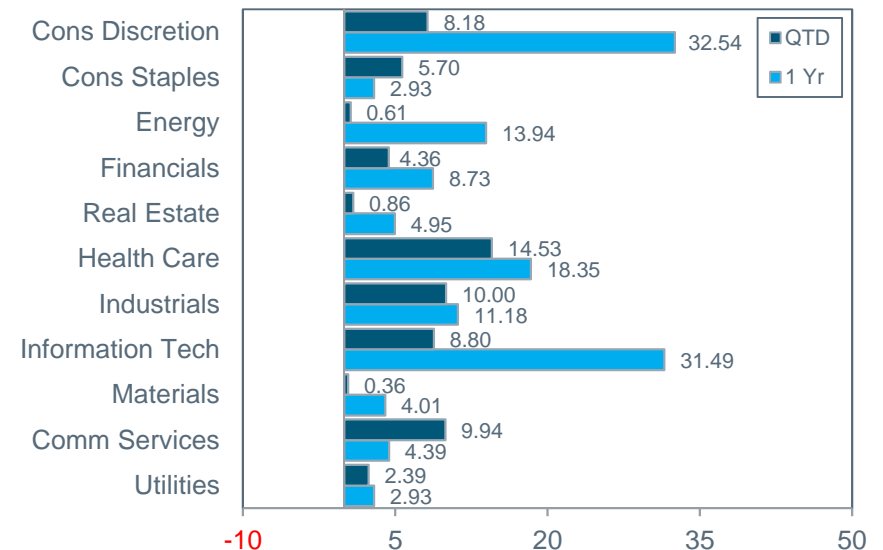
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



Third Quarter Review

Developed Markets

Developed international markets are still in negative territory year-to-date, despite large cap stocks generating positive returns in Q3. Geopolitical risks, particularly those driven by newly imposed trade tariffs, were cited as dampening near-term expectations for growth outside the US.

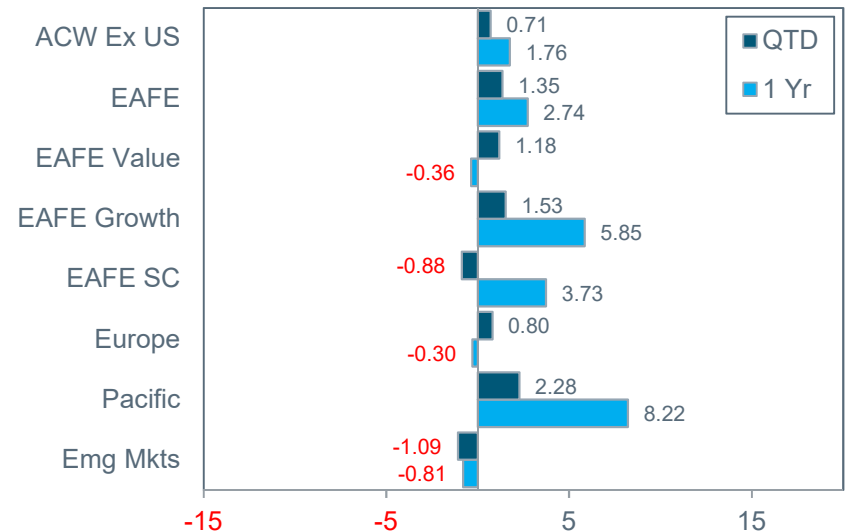
Emerging Markets

Emerging markets were hit harder than their developed market counterparts ending the third quarter with losses. Across most emerging markets, weakening currencies took their toll on dollar-based equity returns.

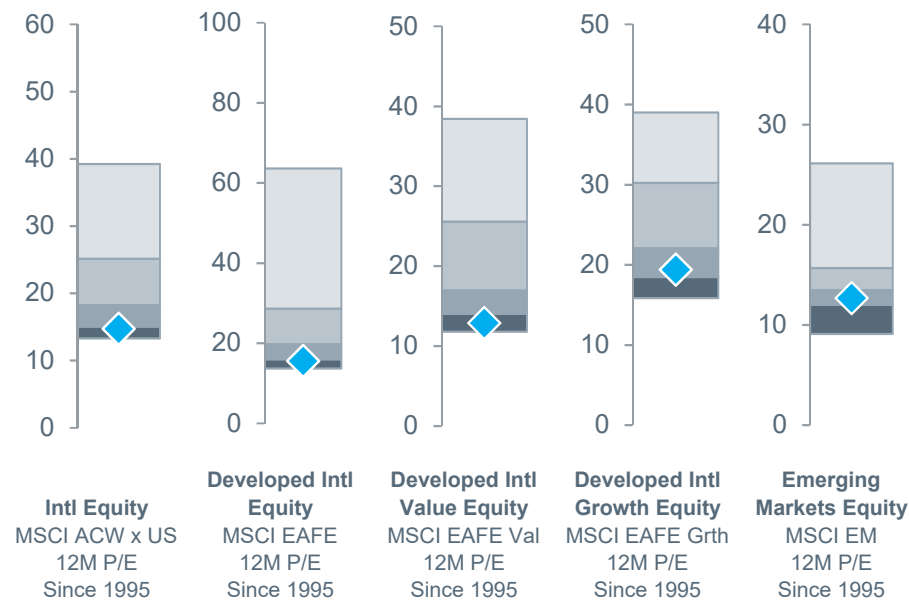
Market Cap & Style

While developed international growth stocks were positive in the quarter, value stocks, continuing to underperform growth stocks, brought down the overall market in the same time period. Small cap stocks trail large cap stocks for the year-to-date period after underperforming again in the third quarter.

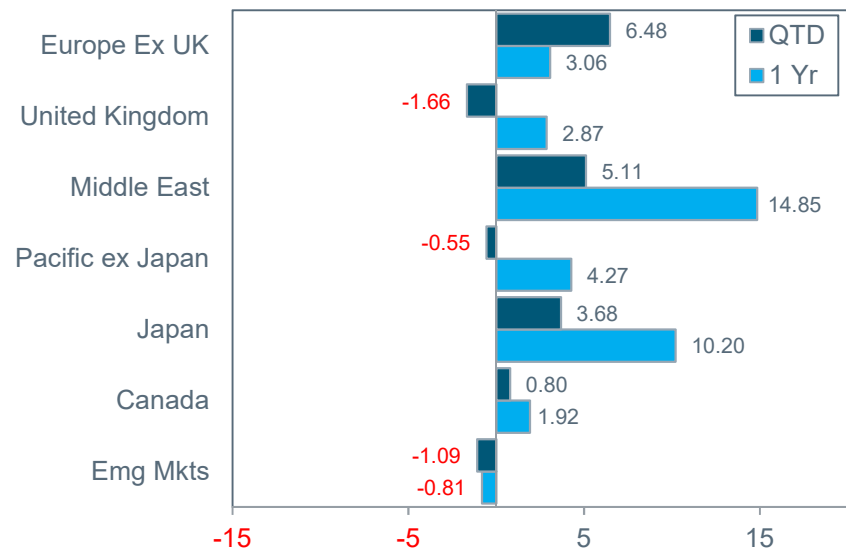
MSCI Style and Capitalization Market Performance (%)



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.

Third Quarter Review

Broad Market

The Federal Open Market Committee increased the target range for the federal funds rate to 2.00% - 2.25% at the September meeting. The Bloomberg US Agg Bond Index was effectively flat for the quarter with a 0.02% return. US government bonds faced greater headwinds than their corporate counterparts, as an increase in rates across the Treasury yield curve led to negative performance for Treasuries.

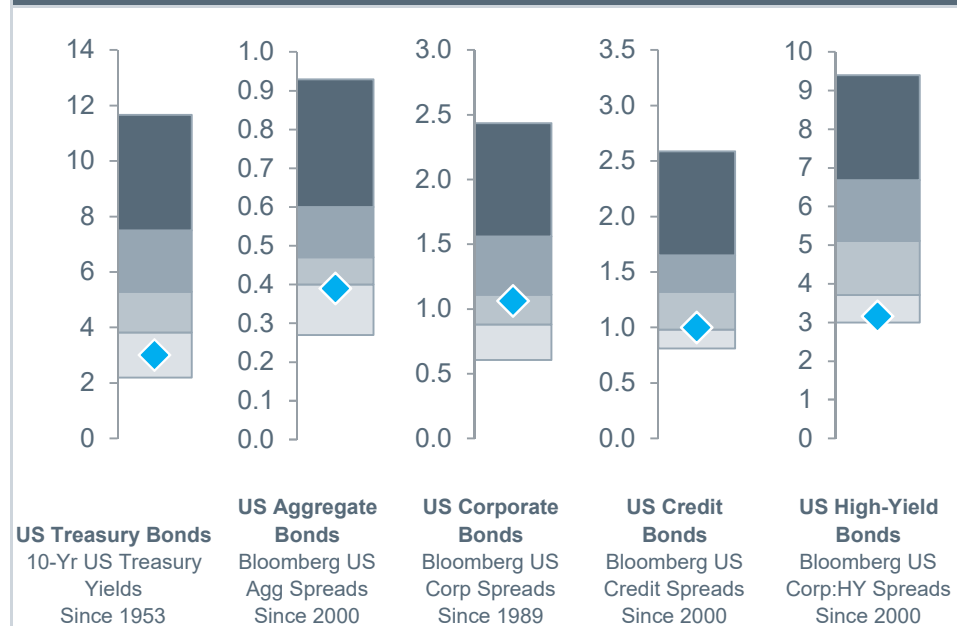
Credit Market

In a reversal of the first half of the year, investment grade corporate spreads tightened from 1.3% to 1.1% and the Bloomberg US Corporate Investment Grade Index returned 0.97%. Non-investment grade bonds similarly experienced a spread tightening. The Bloomberg Corporate High Yield Index returned 2.4%.

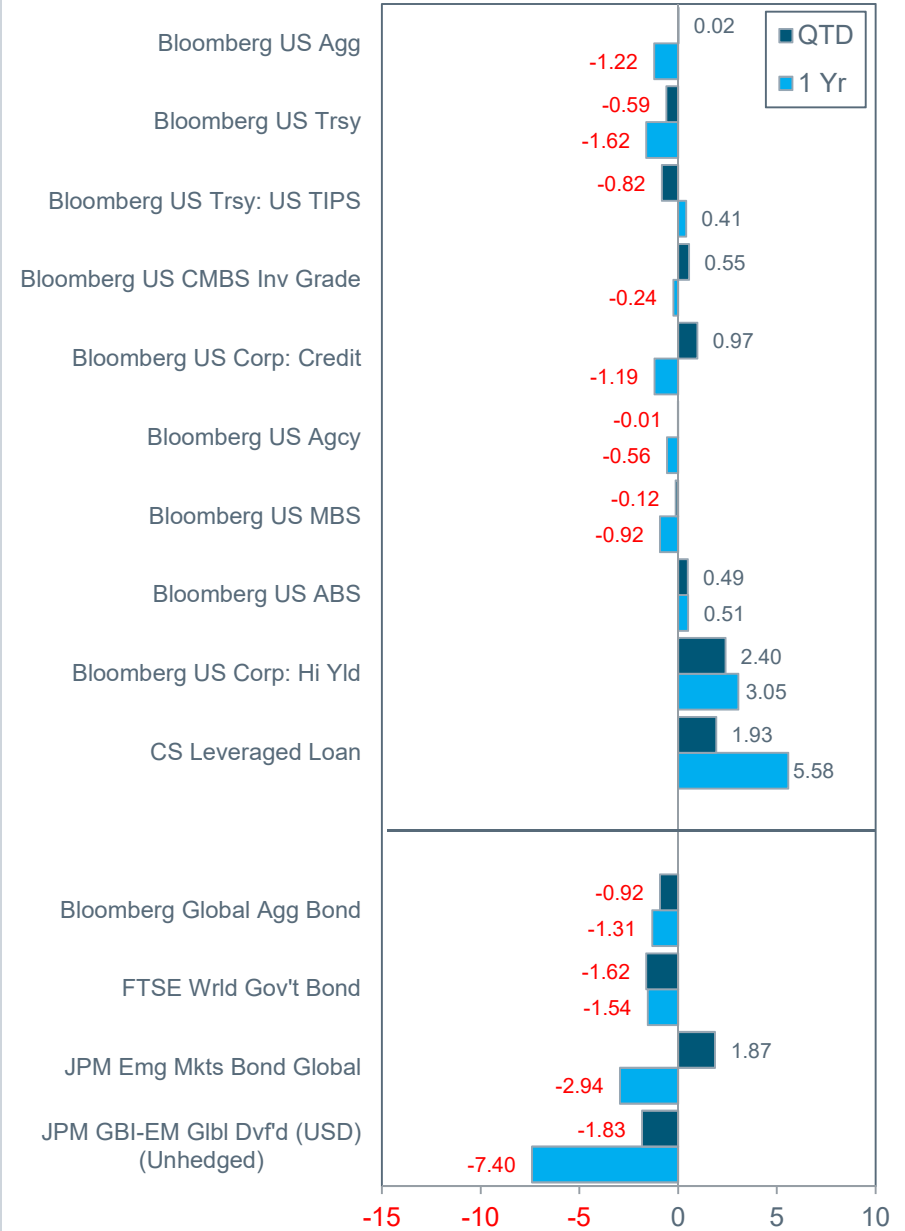
Emerging Market Debt

The continued strengthening of the dollar pushed local currency returns lower with a -1.8% return for the JPM GBI-EM Global Diversified Index.

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.

Third Quarter Review - Absolute Return

General Market - Hedge Funds

Hedge funds produced modestly positive returns during Q3. However, funds did not generally keep pace with US equity market gains during the months of July and August, even on a beta-adjusted basis. Several Fund of Hedge Fund (FoHF) managers continue to benefit from outsized allocations to a few specific funds within the macro discretionary thematic and multi-strategy relative value spaces.

General Market - Global Tactical Asset Allocation (GTAA)

GTAA managers provided mixed results and a wide dispersion of returns during Q3. Most significantly underperformed a static, undiversified blend of 60% US equity and 40% fixed income. Top-down, value-oriented GTAA managers have posted negative returns in a year where value oriented equity holdings have significantly underperformed those with a growth orientation. Many GTAA managers experiencing the worst performance held idiosyncratic exposure to weak, currency-driven markets such as Turkey.

Third Quarter Review - Real Assets

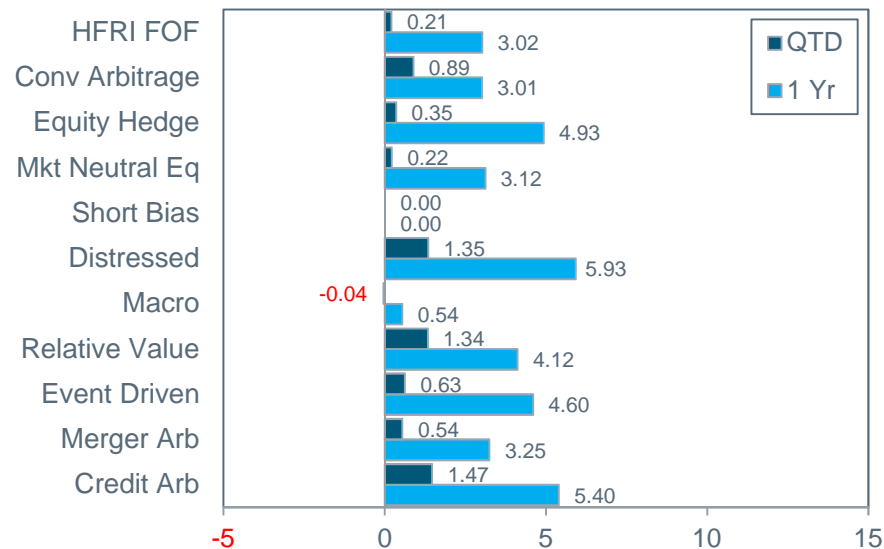
General Market - Diversified Inflation Strategies (DIS)

Nearly all DIS managers posted negative returns during Q3. Headline CPI decreased over the quarter from 2.8% in June to 2.3% at the end of Q3, which coincide with headwinds across several inflation sensitive asset classes. Managers with larger exposure to TIPS, commodities and emerging markets currencies performed least favorably as all three asset classes were simultaneously negative amid rising yields in the US and a stronger US dollar.

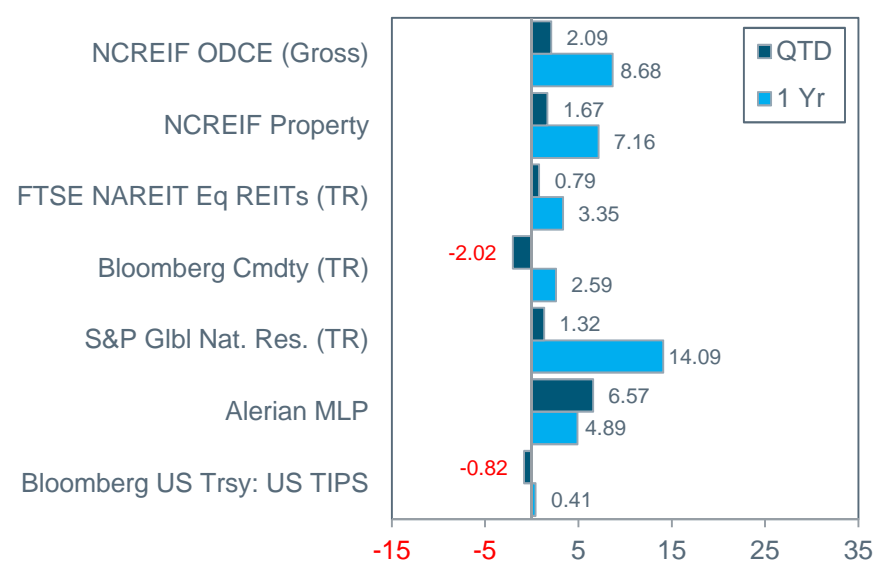
General Market - Real Estate

Core private real estate returned 2.1% during Q3 as tracked by the NCREIF-ODCE Index. Investors in publicly traded real estate generally underperformed their private market counterparts during Q3, as measured by FTSE NAREIT Eq REITs Index return of 0.8%. Publicly traded real estate continued to experience price volatility during Q3, but managed to maintain a positive total return year-to-date.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of September 30, 2018

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD
Best	31.56	34.00	35.03	39.38	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	11.51
	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	10.56
	25.55	21.39	26.34	15.97	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	6.48
	20.25	21.36	19.31	11.63	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	2.57
	18.33	13.54	18.37	11.17	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	1.81
	13.06	12.17	16.32	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	1.30
	11.14	7.49	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	0.94
	10.88	5.34	11.86	6.60	-33.79	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-0.84
	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	-1.43
	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	5.23	-1.60
	8.46	3.07	4.34	1.87	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-2.03
	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	-2.19
	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	-5.42
Worst	1.33	2.43	0.49	-15.70	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-7.68
	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	FTSE NAREIT Eq REITs Index (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 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

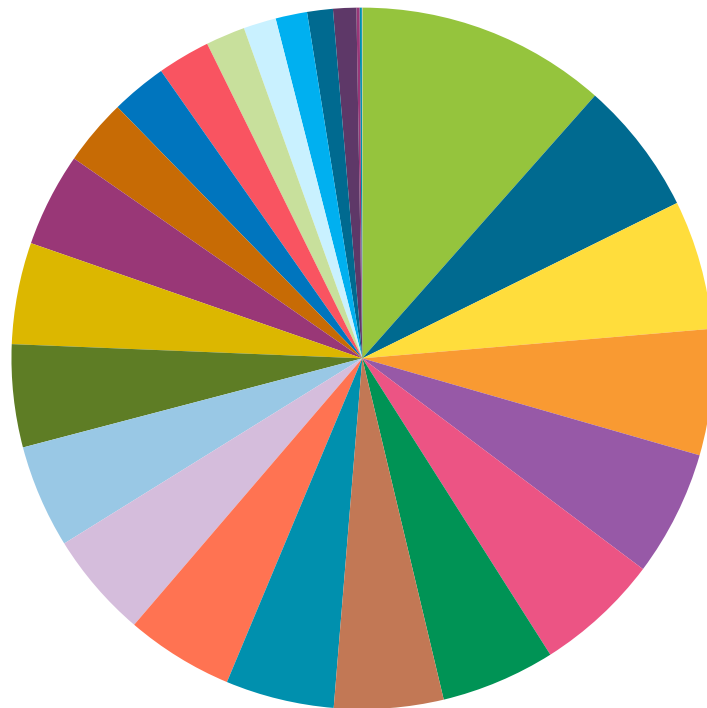


Water and Power Employees' Retirement Plan
Asset Allocation by Manager and Schedule of Investable Assets - Retirement

As of September 30, 2018

Asset Allocation by Manager

September 30, 2018 : \$12,616,598,004



	Market Value (\$)	Allocation (%)
BlackRock Russell 1000 Index (CF)	1,454,646,166	11.53
T. Rowe Price Large Cap Growth (SA)	778,337,121	6.17
Fred Alger Large Cap Growth (SA)	751,430,977	5.96
JP Morgan Principal Protection (SA)	732,036,772	5.80
Wells Principal Protection (SA)	731,201,862	5.80
Real Estate Composite	725,799,225	5.75
Neuberger Unconstrained (SA)	664,400,911	5.27
Macquarie Unconstrained (SA)	634,878,222	5.03
T. Rowe Price Large Cap Value (SA)	630,688,794	5.00
MFS Developed Int'l (SA)	626,659,820	4.97
MFS Large Cap Value (SA)	616,540,355	4.89
Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net	600,499,660	4.76
Fidelity Developed Int'l (SA)	597,070,117	4.73
BlackRock Developed Int'l - Passive (CF)	590,613,208	4.68
Private Equity Composite	545,339,256	4.32
WAMCO (SA)	385,564,496	3.06
Wellington Emerging (SA)	324,067,560	2.57
LA Capital Emerging (CF)	306,282,379	2.43
Cash Equivalents	229,101,586	1.82
Emerald Small Cap Growth (SA)	189,598,815	1.50
Earnest Partners Small Cap Value (SA)	183,482,170	1.45
Pacific Asset Bank Loans (SA)	149,164,168	1.18
Invesco Commodity (CF)	134,688,437	1.07
Molpus IV (CF) (Lagged-1 Qtr)	18,225,157	0.14
Hancock Timberland (CF) (Lagged-1 Qtr)	13,409,148	0.11
MS Convergent (CF) (Lagged-1 Mo)	2,871,621	0.02

Schedule of Investable Assets - FYTD

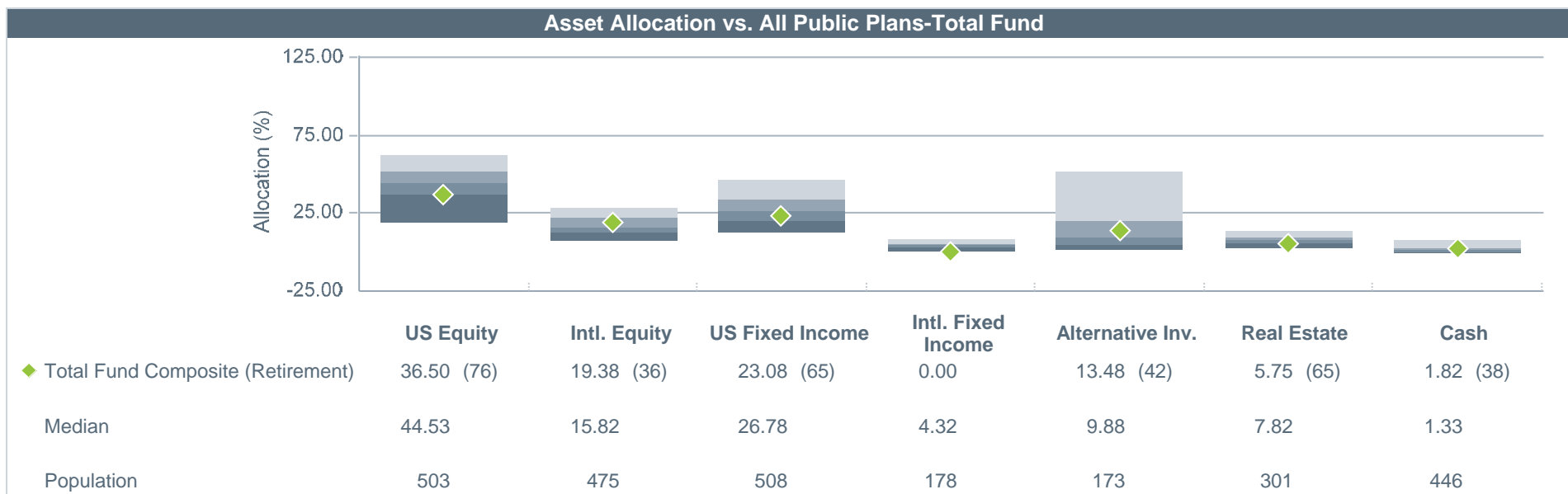
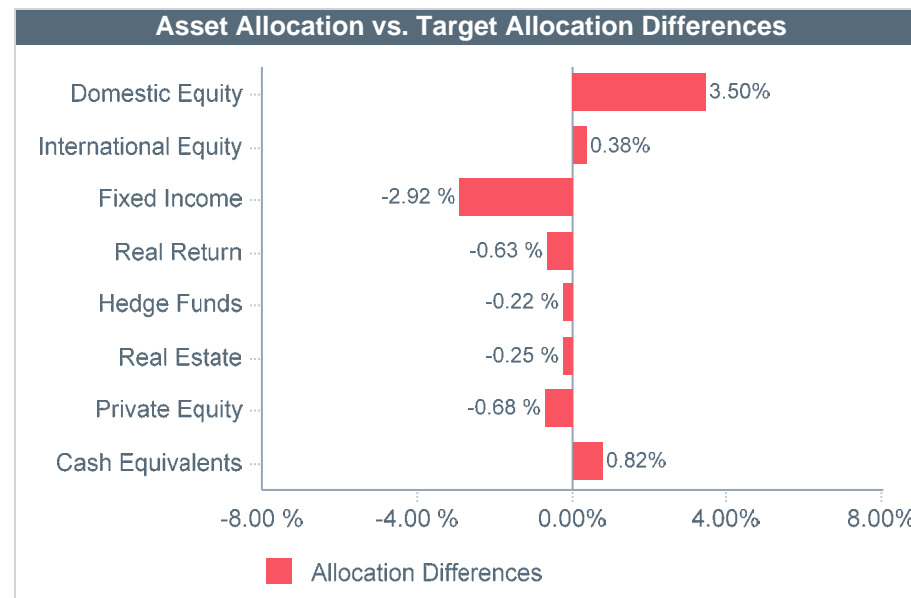
Periods Ending	Beginning Market Value (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
FYTD	12,225,869,300	390,728,704	12,616,598,004	3.30	103.30

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 September 30, 2018

Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Domestic Equity	4,604,724,399	36.50	33.00
International Equity	2,444,693,083	19.38	19.00
Fixed Income	2,911,681,936	23.08	26.00
Real Return	551,887,239	4.37	5.00
Hedge Funds	603,371,281	4.78	5.00
Real Estate	725,799,225	5.75	6.00
Private Equity	545,339,256	4.32	5.00
Cash Equivalents	229,101,586	1.82	1.00
Total Fund	12,616,598,004	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 September 30, 2018

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
Total Fund Composite (Retirement)	3.30	4.89	8.89	10.56	8.47	10.15	8.28	16.53	6.94	1.68	6.89	01/01/2005
Retirement Policy Benchmark	3.07	4.10	7.97	10.15	8.03	9.80	7.99	15.21	8.40	0.71	6.64	
Difference	0.23	0.79	0.92	0.41	0.44	0.35	0.29	1.32	-1.46	0.97	0.25	
All Public Plans-Total Fund Median	3.15	4.28	8.28	10.04	7.85	9.87	8.09	15.52	7.34	0.17	6.75	
Rank	41	33	36	33	26	42	38	29	60	12	42	
Domestic Equity Composite	7.41	12.57	19.61	18.36	14.42	17.84	12.47	23.44	11.68	1.96	8.43	04/01/2001
Russell 3000 (Blended) (R)	7.12	10.57	17.58	17.07	13.46	16.86	12.01	21.13	12.74	0.48	7.79	
Difference	0.29	2.00	2.03	1.29	0.96	0.98	0.46	2.31	-1.06	1.48	0.64	
All Public Plans-US Equity Segment Median	6.42	10.52	16.83	16.71	12.90	16.54	11.73	20.32	12.98	0.21	N/A	
Rank	13	5	3	2	1	5	8	8	78	8	N/A	
MFS Large Cap Value (SA)	5.92	2.07	7.36	13.87	11.51	15.72	10.57	17.82	15.80	-0.06	9.48	03/01/2004
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	7.88	
Difference	0.22	-1.85	-2.09	0.32	0.79	0.70	0.78	4.16	-1.54	3.77	1.60	
IM U.S. Large Cap Value Equity (SA+CF) Median	5.65	5.14	11.82	14.61	11.55	15.59	10.87	17.22	14.35	-2.22	8.96	
Rank	43	90	92	65	53	47	62	44	38	29	32	
MFS Large Cap Value (SA) - Net	5.84	1.84	7.03	13.53	11.18	15.37	10.21	17.46	15.45	-0.38	9.11	03/01/2004
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	7.88	
Difference	0.14	-2.08	-2.42	-0.02	0.46	0.35	0.42	3.80	-1.89	3.45	1.23	
T. Rowe Price Large Cap Value (SA)	4.91	4.46	10.11	15.61	11.86	16.23	11.16	16.74	17.14	-1.90	9.43	10/01/2004
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	8.10	
Difference	-0.79	0.54	0.66	2.06	1.14	1.21	1.37	3.08	-0.20	1.93	1.33	
IM U.S. Large Cap Value Equity (SA+CF) Median	5.65	5.14	11.82	14.61	11.55	15.59	10.87	17.22	14.35	-2.22	9.18	
Rank	68	60	69	29	40	33	43	59	26	47	42	
T. Rowe Price Large Cap Value (SA) - Net	4.83	4.23	9.79	15.27	11.54	15.89	10.82	16.40	16.80	-2.19	9.07	10/01/2004
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	8.10	
Difference	-0.87	0.31	0.34	1.72	0.82	0.87	1.03	2.74	-0.54	1.64	0.97	

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BlackRock Russell 1000 Index (CF)	7.42	10.50	17.79	17.10	13.70	16.94	12.12	21.70	12.09	0.94	9.77	09/01/2003
Russell 1000 Index	7.42	10.49	17.76	17.07	13.67	16.90	12.09	21.69	12.05	0.92	9.71	
Difference	0.00	0.01	0.03	0.03	0.03	0.04	0.03	0.01	0.04	0.02	0.06	
IM U.S. Large Cap Core Equity (SA+CF) Median	7.13	9.83	17.25	16.23	13.55	16.86	12.03	21.82	10.52	1.41	9.99	
Rank	42	38	42	34	48	46	45	52	31	57	65	
BlackRock Russell 1000 Index (CF) - Net	7.42	10.50	17.79	17.10	13.69	16.93	12.09	21.70	12.09	0.93	9.71	09/01/2003
Russell 1000 Index	7.42	10.49	17.76	17.07	13.67	16.90	12.09	21.69	12.05	0.92	9.71	
Difference	0.00	0.01	0.03	0.03	0.02	0.03	0.00	0.01	0.04	0.01	0.00	
Fred Alger Large Cap Growth (SA)	12.21	29.71	36.32	21.10	16.52	18.52	13.93	29.32	0.38	1.73	10.77	03/01/2004
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	10.04	
Difference	3.04	12.62	10.02	0.55	-0.06	-0.17	-0.38	-0.89	-6.70	-3.94	0.73	
IM U.S. Large Cap Growth Equity (SA+CF) Median	8.17	16.17	24.42	18.85	15.59	18.13	13.73	28.11	4.65	5.02	10.08	
Rank	1	2	3	16	32	43	43	42	85	77	25	
Fred Alger Large Cap Growth (SA) - Net	12.12	29.43	35.93	20.76	16.19	18.18	13.57	28.95	0.09	1.44	10.40	03/01/2004
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	10.04	
Difference	2.95	12.34	9.63	0.21	-0.39	-0.51	-0.74	-1.26	-6.99	-4.23	0.36	
T. Rowe Price Large Cap Growth (SA)	7.47	20.68	30.13	24.39	19.30	22.16	N/A	36.61	5.78	12.48	17.11	04/01/2010
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	15.62	
Difference	-1.70	3.59	3.83	3.84	2.72	3.47	N/A	6.40	-1.30	6.81	1.49	
IM U.S. Large Cap Growth Equity (SA+CF) Median	8.17	16.17	24.42	18.85	15.59	18.13	13.73	28.11	4.65	5.02	14.91	
Rank	64	19	15	3	5	1	N/A	5	41	7	9	
T. Rowe Price Large Cap Growth (SA) - Net	7.39	20.39	29.72	23.99	18.92	21.76	N/A	36.17	5.42	12.11	16.72	04/01/2010
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	15.62	
Difference	-1.78	3.30	3.42	3.44	2.34	3.07	N/A	5.96	-1.66	6.44	1.10	
Earnest Partners Small Cap Value (SA)	2.81	4.97	12.06	19.41	13.62	18.16	12.33	23.07	24.79	-2.28	9.87	12/01/2004
Russell 2000 Val Index	1.60	7.14	9.33	16.12	9.91	15.26	9.52	7.84	31.74	-7.47	7.75	
Difference	1.21	-2.17	2.73	3.29	3.71	2.90	2.81	15.23	-6.95	5.19	2.12	
IM U.S. Small Cap Value Equity (SA+CF) Median	1.62	5.37	9.07	15.12	10.77	16.31	12.09	11.61	26.17	-4.29	9.74	
Rank	35	56	30	9	3	14	42	5	59	31	45	
Earnest Partners Small Cap Value (SA) - Net	2.67	4.54	11.44	18.74	12.99	17.49	11.66	22.39	24.08	-2.83	9.17	12/01/2004
Russell 2000 Val Index	1.60	7.14	9.33	16.12	9.91	15.26	9.52	7.84	31.74	-7.47	7.75	
Difference	1.07	-2.60	2.11	2.62	3.08	2.23	2.14	14.55	-7.66	4.64	1.42	

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Emerald Small Cap Growth (SA)	7.13	15.05	24.18	N/A	N/A	N/A	N/A	29.53	10.02	N/A	16.80	12/01/2015
Russell 2000 Grth Index	5.52	15.76	21.06	17.98	12.14	17.52	12.65	22.17	11.32	-1.38	15.36	
Difference	1.61	-0.71	3.12	N/A	N/A	N/A	N/A	7.36	-1.30	N/A	1.44	
IM U.S. Small Cap Growth Equity (SA+CF) Median	7.71	20.97	26.92	19.56	13.35	18.69	14.04	23.91	11.40	-0.74	17.53	
Rank	59	76	61	N/A	N/A	N/A	N/A	21	58	N/A	58	
Emerald Small Cap Growth (SA) - Net	6.97	14.54	23.45	N/A	N/A	N/A	N/A	28.77	9.37	N/A	16.10	12/01/2015
Russell 2000 Grth Index	5.52	15.76	21.06	17.98	12.14	17.52	12.65	22.17	11.32	-1.38	15.36	
Difference	1.45	-1.22	2.39	N/A	N/A	N/A	N/A	6.60	-1.95	N/A	0.74	
International Equity Composite	0.98	-1.98	3.14	10.79	5.99	8.55	6.18	29.34	3.09	-1.39	6.33	07/01/2004
MSCI ACW Ex US IM Index (Blended)	0.39	-3.27	1.79	10.14	4.39	7.49	5.62	27.81	4.41	-4.60	6.44	
Difference	0.59	1.29	1.35	0.65	1.60	1.06	0.56	1.53	-1.32	3.21	-0.11	
All Public Plans-Intl. Equity Segment Median	0.71	-2.03	2.76	10.78	5.39	8.86	6.44	28.61	3.99	-2.60	7.20	
Rank	35	50	40	50	26	64	66	37	70	28	76	
BlackRock Developed Int'l - Passive (CF)	1.04	-1.22	3.24	10.21	5.05	N/A	N/A	25.71	3.45	-1.62	7.73	10/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	7.32	
Difference	0.06	0.40	0.46	0.49	0.43	N/A	N/A	0.54	0.50	0.33	0.41	
IM All EAFE (SA+CF) Median	1.20	-1.70	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	8.35	
Rank	54	41	38	37	59	N/A	N/A	59	22	75	68	
BlackRock Developed Int'l - Passive (CF) - Net	1.04	-1.22	3.24	10.20	5.04	N/A	N/A	25.71	3.45	-1.64	7.71	10/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	7.32	
Difference	0.06	0.40	0.46	0.48	0.42	N/A	N/A	0.54	0.50	0.31	0.39	
MFS Developed Int'l (SA)	2.37	2.33	8.47	11.35	8.32	N/A	N/A	27.13	-0.22	7.17	11.89	08/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	8.16	
Difference	1.39	3.95	5.69	1.63	3.70	N/A	N/A	1.96	-3.17	9.12	3.73	
IM All EAFE (SA+CF) Median	1.20	-1.70	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	9.13	
Rank	16	12	10	16	7	N/A	N/A	42	69	6	6	
MFS Developed Int'l (SA) - Net	2.28	2.07	8.10	10.98	7.96	N/A	N/A	26.70	-0.56	6.83	11.52	08/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	8.16	
Difference	1.30	3.69	5.32	1.26	3.34	N/A	N/A	1.53	-3.51	8.78	3.36	

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Fidelity Developed Int'l (SA)	1.24	-0.51	2.96	8.95	4.68	8.89	6.14	25.16	-0.70	0.99	6.15	12/01/2004
International Developed Blend	0.98	-1.62	2.78	9.72	4.62	8.20	6.12	25.17	2.95	-1.95	5.18	
Difference	0.26	1.11	0.18	-0.77	0.06	0.69	0.02	-0.01	-3.65	2.94	0.97	
IM All EAFE (SA+CF) Median	1.20	-1.70	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	6.36	
Rank	48	31	42	65	72	73	69	67	73	54	57	
Fidelity Developed Int'l (SA) - Net	1.17	-0.71	2.68	8.64	4.39	8.58	5.81	24.81	-0.98	0.73	5.80	12/01/2004
International Developed Blend	0.98	-1.62	2.78	9.72	4.62	8.20	6.12	25.17	2.95	-1.95	5.18	
Difference	0.19	0.91	-0.10	-1.08	-0.23	0.38	-0.31	-0.36	-3.93	2.68	0.62	
LA Capital Emerging (CF)	-0.01	-7.58	-0.88	12.11	4.19	N/A	N/A	37.13	12.18	-15.10	4.03	10/01/2012
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	3.16	
Difference	1.44	0.64	0.30	0.39	0.68	N/A	N/A	0.30	2.28	-1.24	0.87	
IM Emerging Markets Equity (SA+CF) Median	-2.21	-8.54	-2.53	12.04	4.33	6.31	6.73	36.95	10.09	-12.62	4.39	
Rank	22	30	30	50	55	N/A	N/A	49	35	72	60	
LA Capital Emerging (CF) - Net	-0.18	-8.03	-1.52	11.39	3.53	N/A	N/A	36.24	11.46	-15.65	3.36	10/01/2012
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	3.16	
Difference	1.27	0.19	-0.34	-0.33	0.02	N/A	N/A	-0.59	1.56	-1.79	0.20	
Wellington Emerging (SA)	-1.23	-7.97	-2.24	N/A	N/A	N/A	N/A	41.01	N/A	N/A	11.49	10/01/2016
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	9.54	
Difference	0.22	0.25	-1.06	N/A	N/A	N/A	N/A	4.18	N/A	N/A	1.95	
IM Emerging Markets Equity (SA+CF) Median	-2.21	-8.54	-2.53	12.04	4.33	6.31	6.73	36.95	10.09	-12.62	9.43	
Rank	40	39	48	N/A	N/A	N/A	N/A	29	N/A	N/A	23	
Wellington Emerging (SA) - Net	-1.37	-8.36	-2.80	N/A	N/A	N/A	N/A	40.21	N/A	N/A	10.86	10/01/2016
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	9.54	
Difference	0.08	-0.14	-1.62	N/A	N/A	N/A	N/A	3.38	N/A	N/A	1.32	

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Fixed Income Composite	0.74	-0.16	0.29	3.02	3.35	3.53	5.27	4.88	5.00	0.78	5.17	04/01/2001
Fixed Income Custom Index (R)	0.68	-0.36	0.04	2.97	3.03	2.92	4.47	4.12	5.65	0.11	4.78	
Difference	0.06	0.20	0.25	0.05	0.32	0.61	0.80	0.76	-0.65	0.67	0.39	
All Public Plans-US Fixed Income Segment Median	0.41	-0.89	-0.20	2.75	2.92	3.24	5.26	4.54	4.54	0.26	N/A	
Rank	17	23	31	45	42	40	49	43	41	30	N/A	
JP Morgan Principal Protection (SA)	0.07	-0.47	-0.61	0.86	N/A	N/A	N/A	1.86	2.02	N/A	1.14	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.16	0.43	0.42	0.28	N/A	N/A	N/A	0.06	0.62	N/A	0.35	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-1.29	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	2.02	
Rank	74	10	36	100	N/A	N/A	N/A	100	97	N/A	99	
JP Morgan Principal Protection (SA) - Net	0.04	-0.54	-0.71	0.76	N/A	N/A	N/A	1.76	1.92	N/A	1.04	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.13	0.36	0.32	0.18	N/A	N/A	N/A	-0.04	0.52	N/A	0.25	
Wells Principal Protection (SA)	-0.05	-0.83	-1.01	0.80	N/A	N/A	N/A	1.94	1.86	N/A	1.00	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.04	0.07	0.02	0.22	N/A	N/A	N/A	0.14	0.46	N/A	0.21	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-1.29	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	2.02	
Rank	91	17	71	100	N/A	N/A	N/A	100	98	N/A	100	
Wells Principal Protection (SA) - Net	-0.08	-0.91	-1.12	0.68	N/A	N/A	N/A	1.83	1.73	N/A	0.88	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.01	-0.01	-0.09	0.10	N/A	N/A	N/A	0.03	0.33	N/A	0.09	
Macquarie Unconstrained (SA)	0.91	-1.19	-0.33	4.59	N/A	N/A	N/A	7.86	8.37	N/A	4.20	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	-0.48	-0.90	-0.95	-0.78	N/A	N/A	N/A	1.13	-1.67	N/A	-0.73	
IM Global Fixed Income (SA+CF) Median	0.49	-0.53	0.32	3.94	2.78	3.43	4.65	7.63	5.76	-2.37	3.49	
Rank	41	59	59	39	N/A	N/A	N/A	46	35	N/A	38	
Macquarie Unconstrained (SA) - Net	0.86	-1.32	-0.50	4.41	N/A	N/A	N/A	7.67	8.19	N/A	4.02	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	-0.53	-1.03	-1.12	-0.96	N/A	N/A	N/A	0.94	-1.85	N/A	-0.91	

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Neuberger Unconstrained (SA)	1.97	1.05	2.40	6.60	N/A	N/A	N/A	9.26	9.65	N/A	6.27	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	0.58	1.34	1.78	1.23	N/A	N/A	N/A	2.53	-0.39	N/A	1.34	
IM Global Fixed Income (SA+CF) Median	0.49	-0.53	0.32	3.94	2.78	3.43	4.65	7.63	5.76	-2.37	3.49	
Rank	20	28	22	21	N/A	N/A	N/A	26	31	N/A	15	
Neuberger Unconstrained (SA) - Net	1.91	0.88	2.16	6.35	N/A	N/A	N/A	9.01	9.40	N/A	6.03	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	0.52	1.17	1.54	0.98	N/A	N/A	N/A	2.28	-0.64	N/A	1.10	
Pacific Asset Bank Loans (SA)	1.97	4.03	5.11	6.02	N/A	N/A	N/A	5.48	9.18	N/A	5.80	09/01/2015
CS Lvg'd Loan Index	1.93	4.36	5.58	5.43	4.35	5.45	5.85	4.25	9.88	-0.38	5.05	
Difference	0.04	-0.33	-0.47	0.59	N/A	N/A	N/A	1.23	-0.70	N/A	0.75	
IM U.S. Bank Loans (SA+CF) Median	1.88	4.14	5.41	5.45	4.48	5.73	6.26	4.46	9.51	0.68	5.05	
Rank	33	57	64	19	N/A	N/A	N/A	7	59	N/A	17	
Pacific Asset Bank Loans (SA) - Net	1.89	3.78	4.78	5.68	N/A	N/A	N/A	5.14	8.83	N/A	5.47	09/01/2015
CS Lvg'd Loan Index	1.93	4.36	5.58	5.43	4.35	5.45	5.85	4.25	9.88	-0.38	5.05	
Difference	-0.04	-0.58	-0.80	0.25	N/A	N/A	N/A	0.89	-1.05	N/A	0.42	
Real Return Composite	-1.09	-1.20	2.26	3.69	2.20	2.17	2.63	4.05	9.90	-2.56	2.56	02/01/2007
CPI+3% (Blended)	1.20	3.93	5.34	5.06	4.58	4.22	3.92	5.17	5.15	3.68	4.35	
Difference	-2.29	-5.13	-3.08	-1.37	-2.38	-2.05	-1.29	-1.12	4.75	-6.24	-1.79	
Invesco Commodity (CF)	-3.13	-3.70	3.88	3.64	-4.15	N/A	N/A	6.09	14.61	-15.75	-4.66	09/01/2013
Bloomberg Cmdty Index (TR)	-2.02	-2.03	2.59	-0.11	-7.18	-6.48	-6.24	1.70	11.77	-24.66	-7.54	
Difference	-1.11	-1.67	1.29	3.75	3.03	N/A	N/A	4.39	2.84	8.91	2.88	
Invesco Commodity (CF) - Net	-3.29	-4.16	3.22	2.97	-4.76	N/A	N/A	5.40	13.87	-16.32	-5.26	09/01/2013
Bloomberg Cmdty Index (TR)	-2.02	-2.03	2.59	-0.11	-7.18	-6.48	-6.24	1.70	11.77	-24.66	-7.54	
Difference	-1.27	-2.13	0.63	3.08	2.42	N/A	N/A	3.70	2.10	8.34	2.28	
Hancock Timberland (CF) (Lagged-1 Qtr) - Net	-0.63	0.73	0.33	3.10	N/A	N/A	N/A	4.65	4.81	-0.34	1.73	04/01/2014
NCREIF Timberland Index (Lagged-1 Qtr)	0.48	2.95	3.57	3.43	6.00	5.76	4.01	3.28	3.28	9.26	5.09	
Difference	-1.11	-2.22	-3.24	-0.33	N/A	N/A	N/A	1.37	1.53	-9.60	-3.36	
Molpus IV (CF) (Lagged-1 Qtr) - Net	0.55	1.94	2.17	1.69	N/A	N/A	N/A	4.52	-1.91	N/A	-3.94	09/01/2015
NCREIF Timberland Index (Lagged-1 Qtr)	0.48	2.95	3.57	3.43	6.00	5.76	4.01	3.28	3.28	9.26	3.51	
Difference	0.07	-1.01	-1.40	-1.74	N/A	N/A	N/A	1.24	-5.19	N/A	-7.45	

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 September 30, 2018

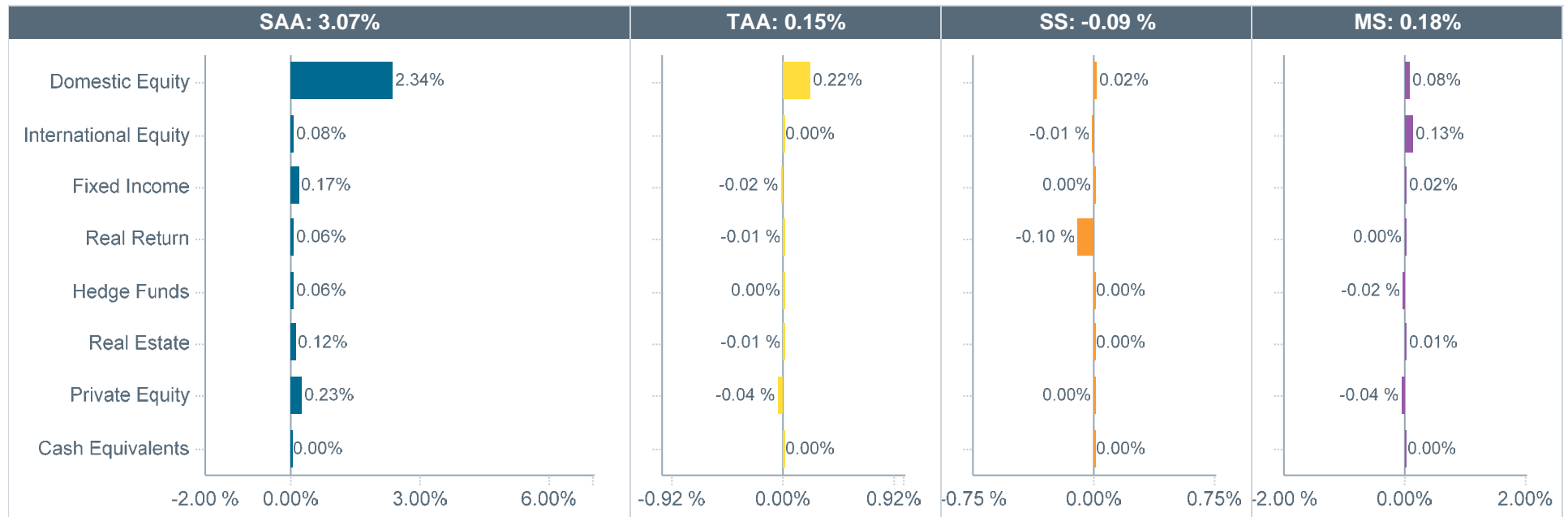
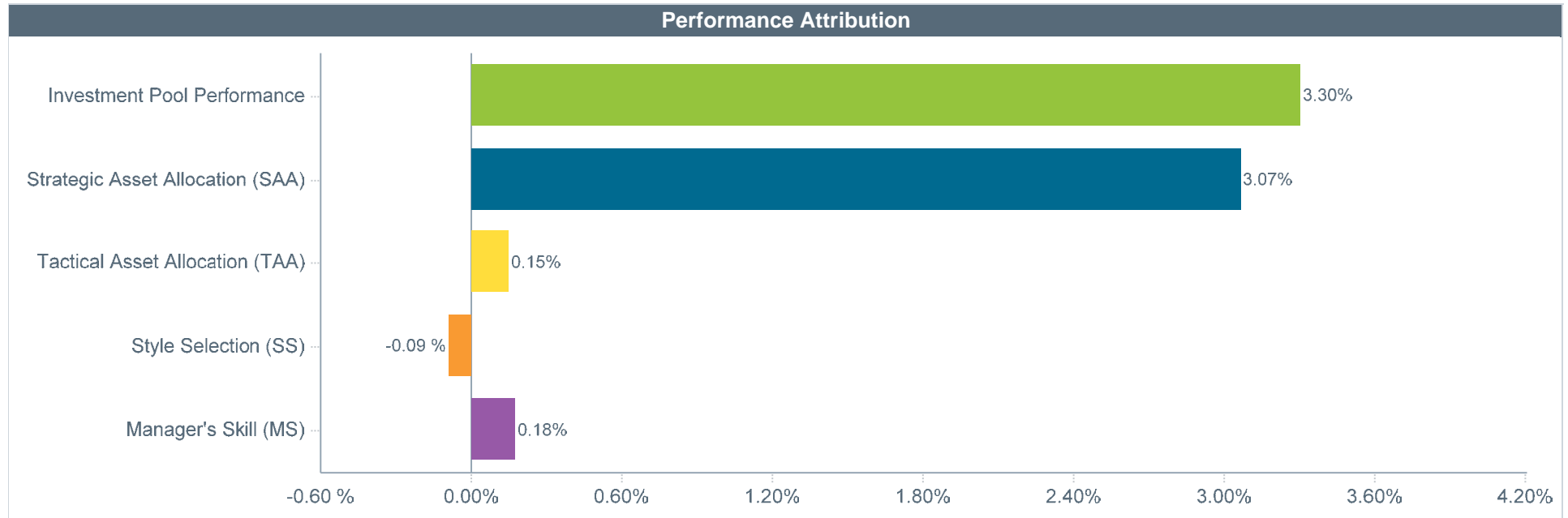
	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
WAMCO (SA)	-0.45	-0.50	1.77	3.90	3.83	3.28	N/A	3.33	9.37	-0.22	3.79	05/01/2010
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	-0.84	-0.44	2.06	3.93	3.80	3.33	4.38	3.32	10.22	-1.12	4.02	
Difference	0.39	-0.06	-0.29	-0.03	0.03	-0.05	N/A	0.01	-0.85	0.90	-0.23	
WAMCO (SA) - Net	-0.49	-0.63	1.59	3.72	3.66	3.10	N/A	3.15	9.18	-0.39	3.61	05/01/2010
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	-0.84	-0.44	2.06	3.93	3.80	3.33	4.38	3.32	10.22	-1.12	4.02	
Difference	0.35	-0.19	-0.47	-0.21	-0.14	-0.23	N/A	-0.17	-1.04	0.73	-0.41	
Hedge Funds Composite - Net	0.80	2.46	3.61	1.07	2.08	3.24	2.89	3.92	-2.30	1.24	2.81	03/01/2007
ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.25	3.53	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	3.85	
Difference	-0.45	-1.07	-0.96	-2.74	-1.42	-0.14	-0.48	0.11	-5.63	-1.78	-1.04	
Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net	0.80	2.31	3.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.05	09/01/2017
ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.25	3.53	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	4.54	
Difference	-0.45	-1.22	-1.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.49	
MS Convergent (CF) (Lagged-1 Mo) - Net	0.83	6.23	9.16	3.17	N/A	N/A	N/A	7.39	-1.27	-1.34	2.48	03/01/2014
ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.25	3.53	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	3.54	
Difference	-0.42	2.70	4.59	-0.64	N/A	N/A	N/A	3.58	-4.60	-4.36	-1.06	

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.

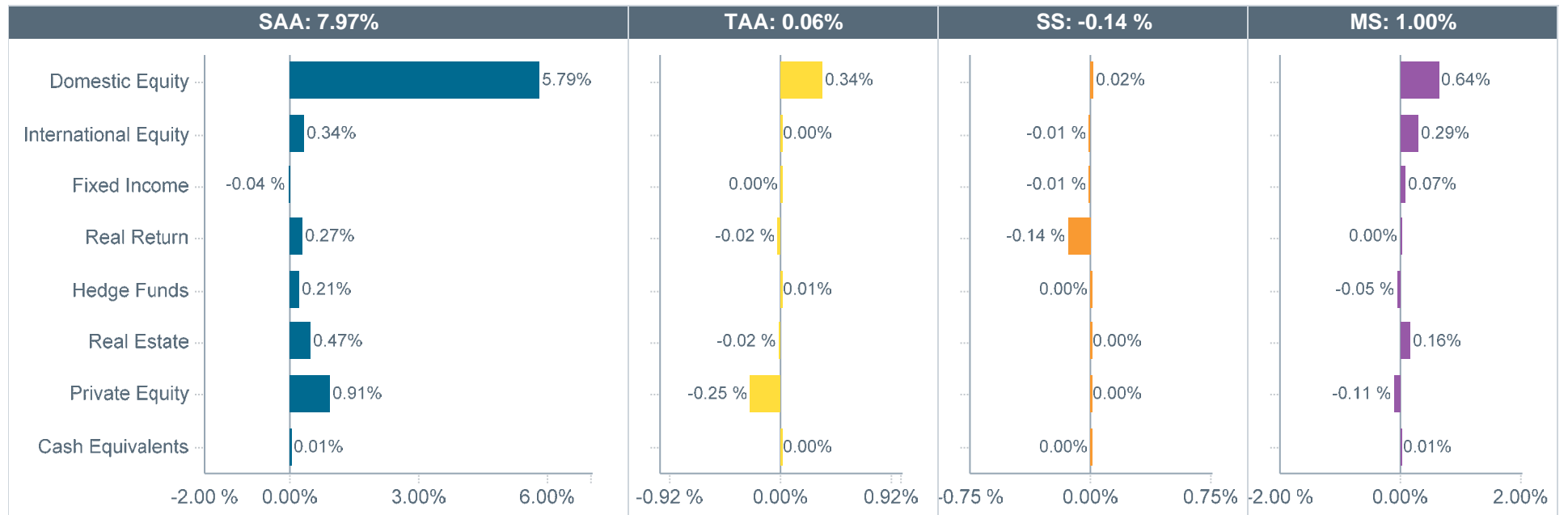
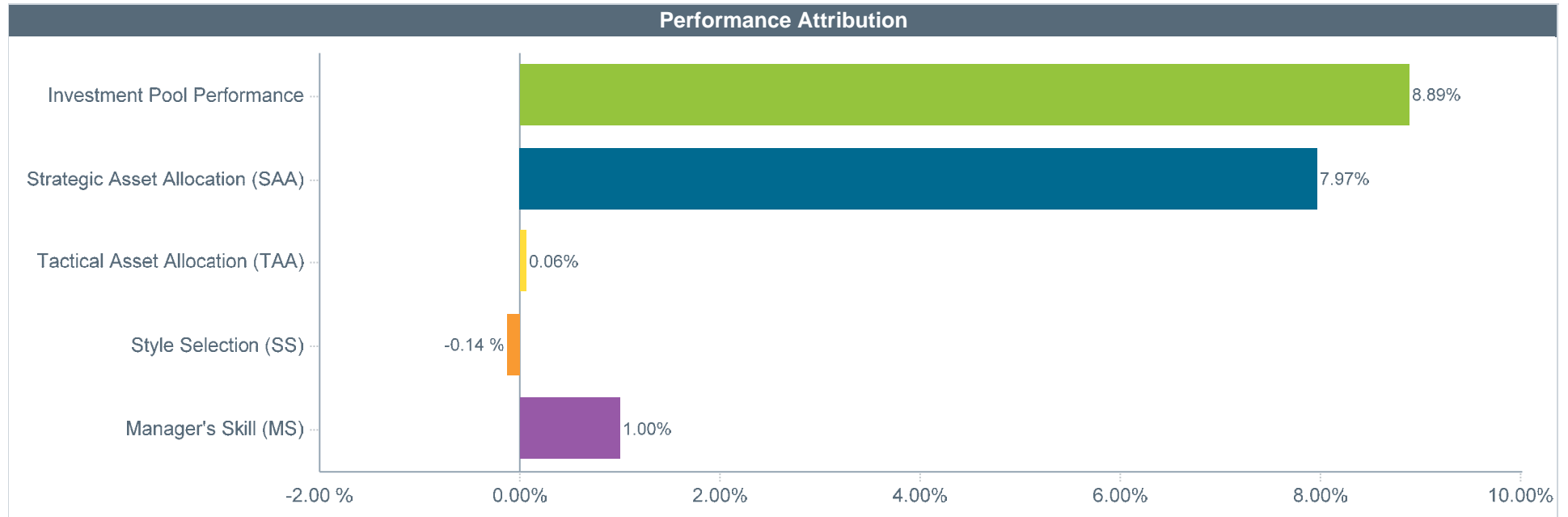
Water and Power Employees' Retirement Plan
Alternative Investment Fund Performance Listing - Retirement

As of June 30, 2018

	Market Value (\$)	% of Alt. Inv. Group	% of Total Fund	Inception IRR	Inception Date
Private Equity	494,778,720	40.82%	4.05%	12.71%	May-06
Adams Street SMB I	13,749,317	1.13%	0.11%	-4.59%	Jan-17
Apollo VIII	29,822,578	2.46%	0.24%	18.38%	Jan-14
Ares IV	23,287,086	1.92%	0.19%	16.17%	Nov-12
Ares Special Situation IV	24,773,698	2.04%	0.20%	-8.76%	Jan-15
Ares V	18,457,205	1.52%	0.15%	15.84%	Jan-15
Audax III V	5,136,178	0.42%	0.04%	12.22%	Jan-11
Blackstone Tactical Opps II	32,388,800	2.67%	0.26%	18.32%	Apr-15
Clayton, Dubilier & Rice IX	20,710,246	1.71%	0.17%	18.73%	Apr-14
Clayton, Dubilier & Rice X	4,715,112	0.39%	0.04%	-10.51%	Mar-18
Crestview Partners III	20,134,102	1.66%	0.16%	22.09%	Feb-15
EnCap IX	12,257,297	1.01%	0.10%	17.54%	Jan-11
EnCap VIII	3,929,327	0.32%	0.03%	-0.05%	Jan-13
EnCap X	26,259,205	2.17%	0.21%	17.55%	Feb-15
EnCap XI	3,333,164	0.28%	0.03%	14%	Jun-17
Fisher Lynch II	16,215,053	1.34%	0.13%	11.35%	Mar-08
Harvest VII	16,449,910	1.36%	0.13%	24.25%	Nov-15
HRJ Special Opp II	6,372,214	0.53%	0.05%	8.14%	Feb-08
Industry Ventures VIII	4,482,438	0.37%	0.04%	94.44%	May-16
Landmark XIII	7,172,247	0.59%	0.06%	6.87%	Oct-06
Landmark XIV	7,650,989	0.63%	0.06%	12.72%	Aug-08
Landmark XV	18,266,200	1.51%	0.15%	17.27%	Feb-14
Lexington VI	3,704,968	0.31%	0.03%	8.21%	May-06
Lexington VII	9,904,550	0.82%	0.08%	17.21%	Aug-09
Oaktree PF V	7,390,910	0.61%	0.06%	6.10%	Jan-09
Silver Lake IV	21,076,692	1.74%	0.17%	34.27%	Sep-13
Silver Lake V	4,268,854	0.35%	0.03%	-8.66%	Feb-17
Vista IV	20,020,800	1.65%	0.16%	20.71%	Sep-11
Vista V	65,287,812	5.39%	0.53%	26.35%	Apr-14
Vista VI	47,561,768	3.92%	0.39%	12.96%	Jun-16
Real Estate	717,201,514	59.18%	5.87%	9.33%	Nov-06
AG Core Plus III	4,575,726	0.38%	0.04%	24.42%	Jan-12
Almanac VI	6,364,303	0.53%	0.05%	16.95%	Jun-12
Almanac VII	14,963,211	1.23%	0.12%	18.68%	Mar-15
BREP Europe IV	12,364,810	1.02%	0.10%	17.64%	Dec-13
BREP VII	16,820,419	1.39%	0.14%	19.82%	Jun-12
Bristol Value II	12,565,501	1.04%	0.10%	13.16%	Nov-12
Dimensional Global REIT	24,997,734	2.06%	0.20%	6.87%	Mar-13
DRA G&I IX	17,531,325	1.45%	0.14%	20.45%	Sep-16
DRA G&I VIII	16,797,477	1.39%	0.14%	13.24%	Jun-14
DRA VII	9,510,546	0.78%	0.08%	13.24%	Oct-11
FPA Core Plus III	42,251,144	3.49%	0.35%	3.96%	Jan-17
Harrison Street Core	60,506,539	4.99%	0.49%	9.19%	Aug-15
Heitman REIT	24,269,356	2.00%	0.20%	8.88%	Sep-13
Invesco Core Realty	56,933,697	4.70%	0.47%	11.03%	Jun-11
Jamestown Premier	43,465,349	3.59%	0.36%	10.60%	Mar-15
JPM Strategic	83,619,450	6.90%	0.68%	5.92%	Sep-07
LaSalle Asia V	2,132,401	0.18%	0.02%	-33.96%	Nov-17
Lone Star RE II	530,315	0.04%	0.00%	28.44%	May-11
Lone Star RE IV	25,486,826	2.10%	0.21%	18.34%	Jun-15
Lone Star V	7,107,250	0.59%	0.06%	16.13%	Aug-17
Lone Star VII	103,440	0.01%	0.00%	49.74%	May-11
Mesa West III	7,033,673	0.58%	0.06%	10.27%	Aug-13
Mesa West IV	15,599,483	1.29%	0.13%	7.77%	Feb-16
PCCP First Mtg II	3,461	0.00%	0.00%	7.17%	Jun-12
PRISA I	89,038,108	7.35%	0.73%	5.66%	Nov-06
PRISA II	40,790,140	3.37%	0.33%	7.07%	May-07
Prologis USLH	31,835,993	2.63%	0.26%	17.45%	Mar-15
Torchlight IV	11,993,540	0.99%	0.10%	12.68%	Aug-13
Torchlight V	16,258,560	1.34%	0.13%	15.35%	Mar-15
Torchlight VI	3,429,490	0.28%	0.03%	-1.81%	Feb-18
Westbrook X	18,322,247	1.51%	0.15%	22.42%	Feb-16



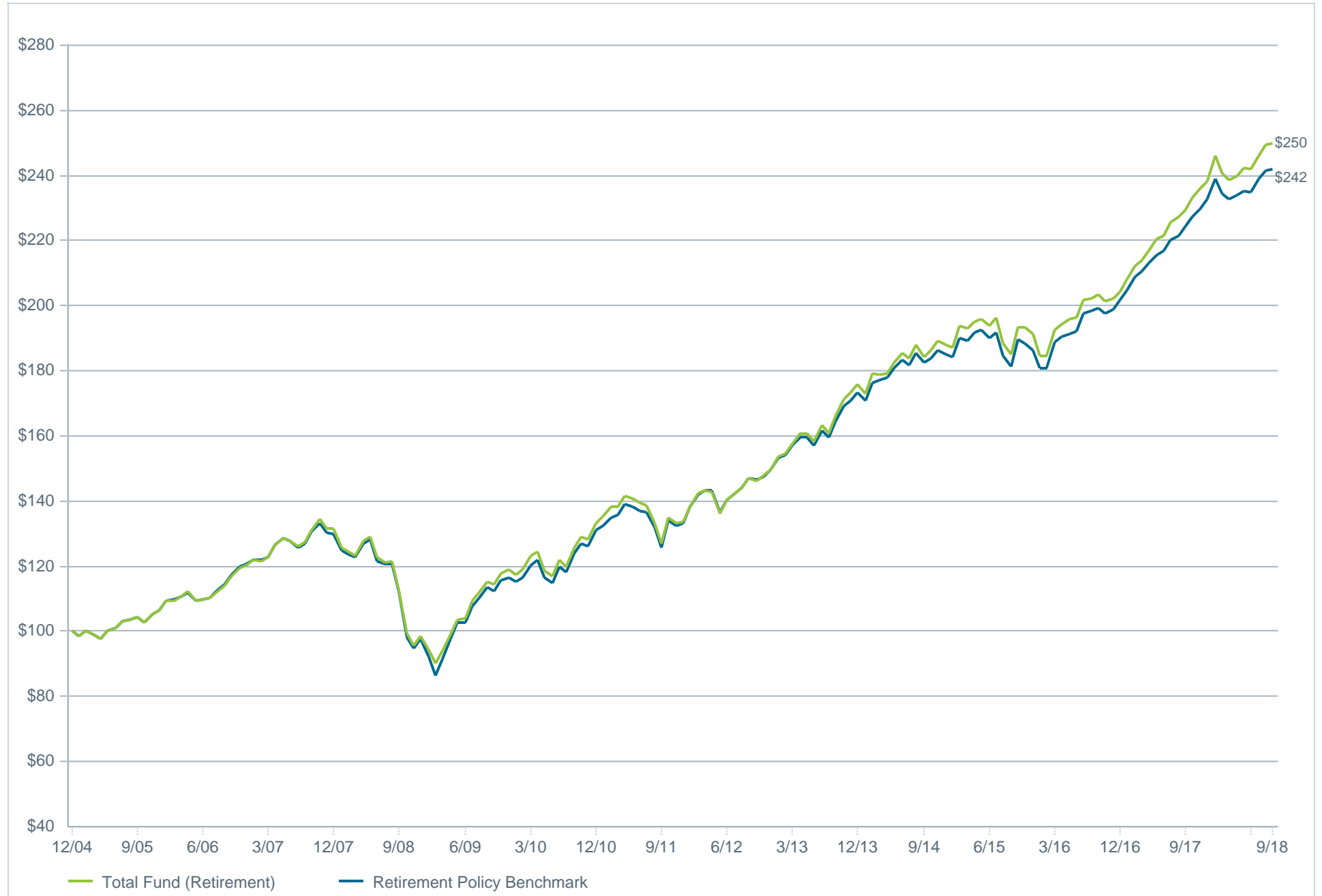
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



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

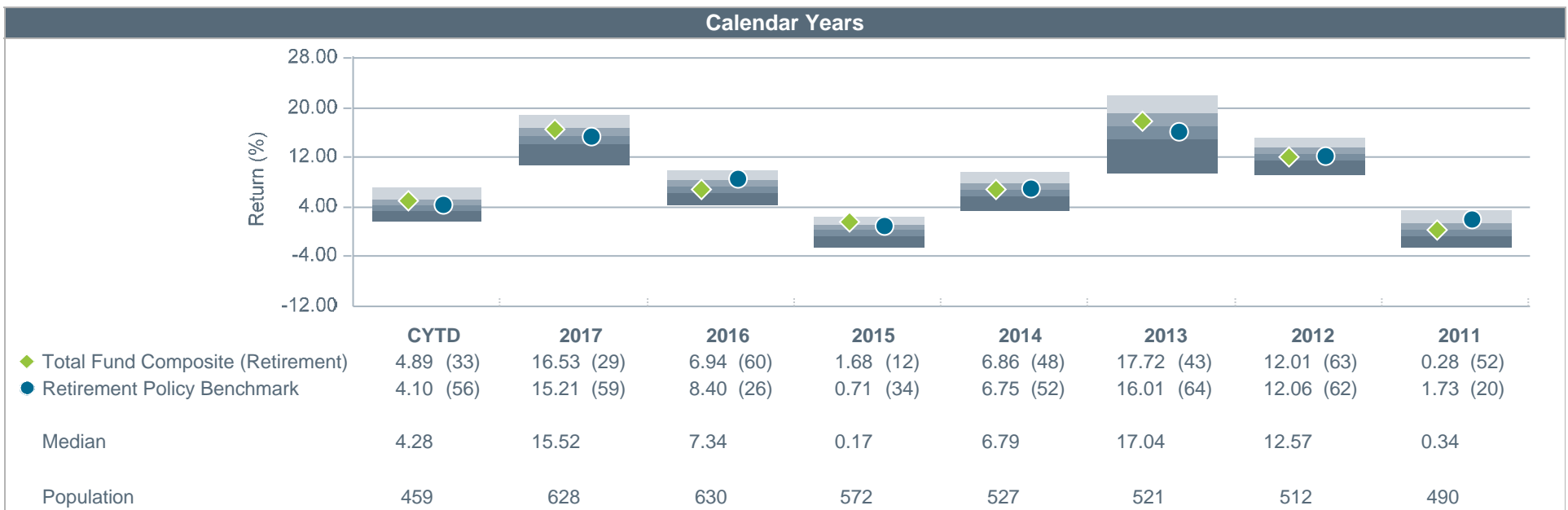
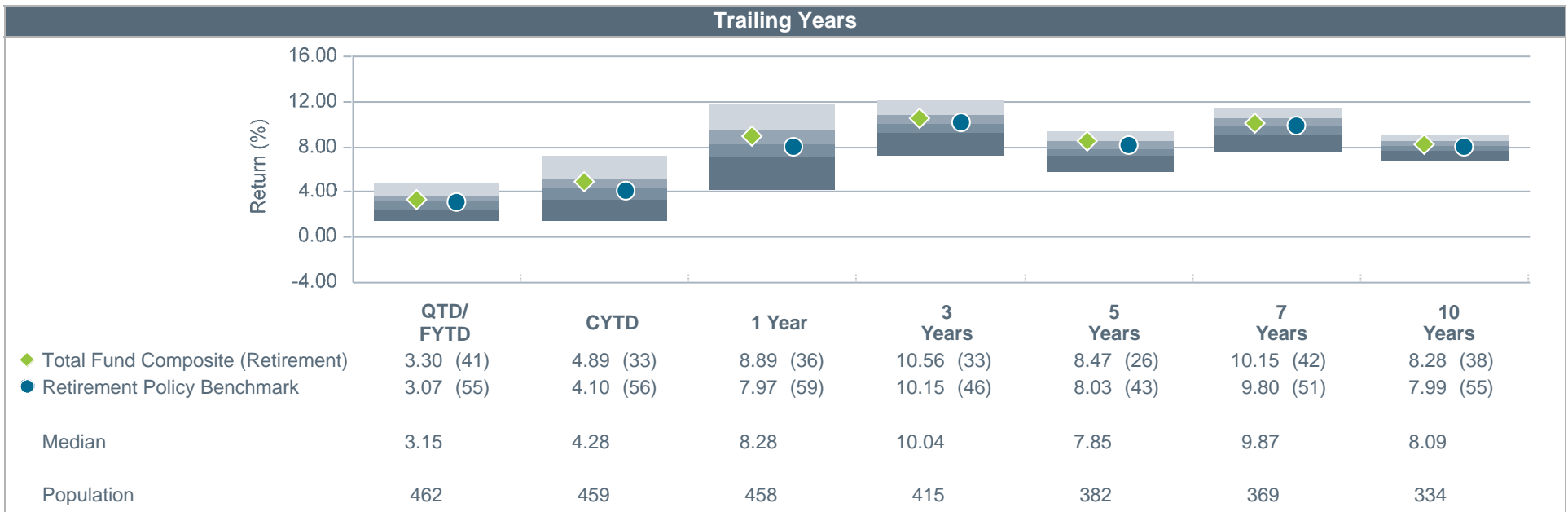
Since Inception Ending September 30, 2018



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 September 30, 2018

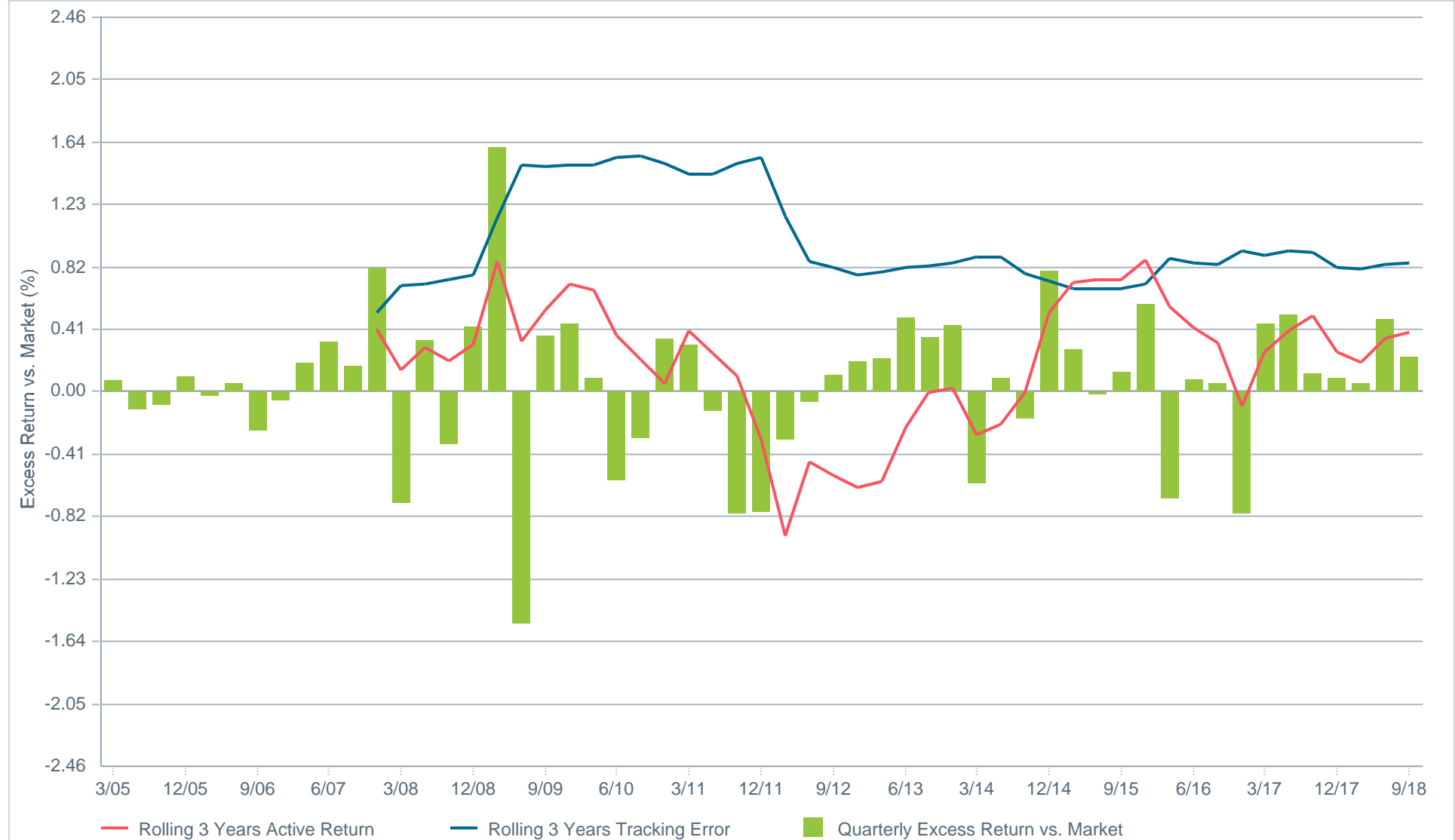


Performance shown is gross of fees. Parenthesis contain percentile ranks.

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

As of September 30, 2018

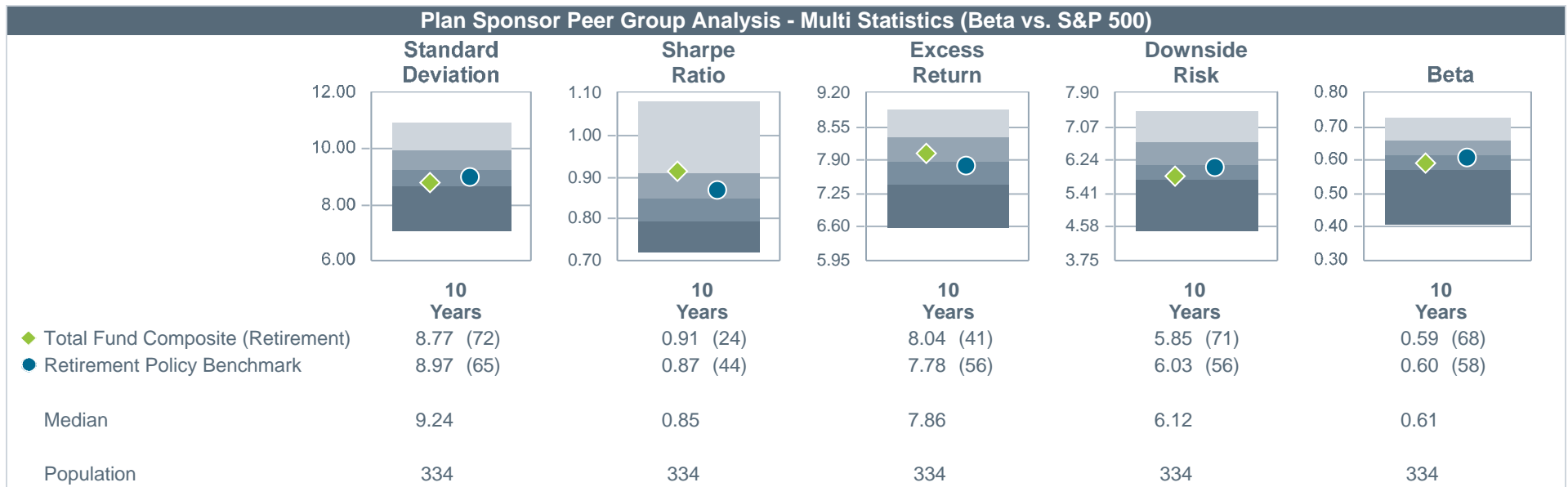
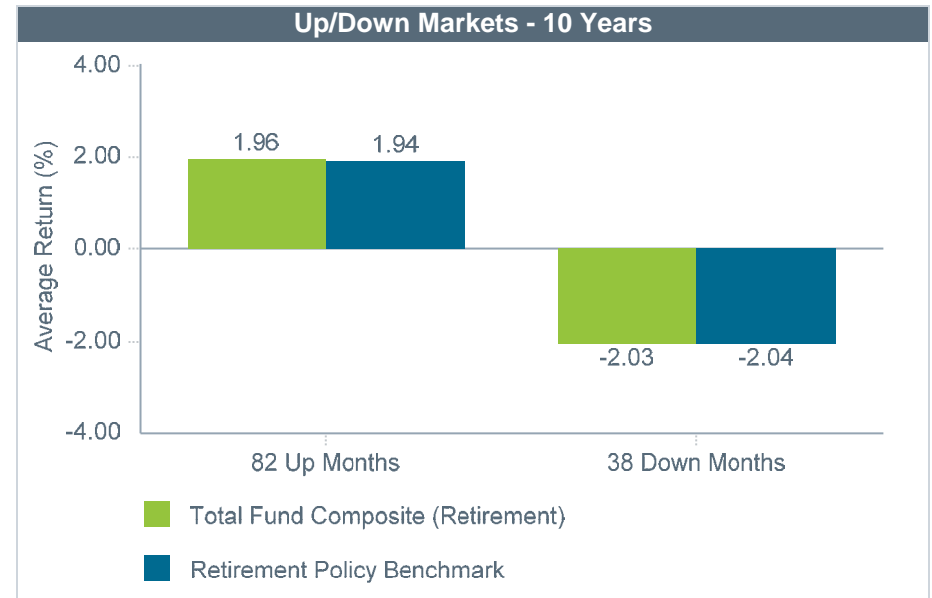
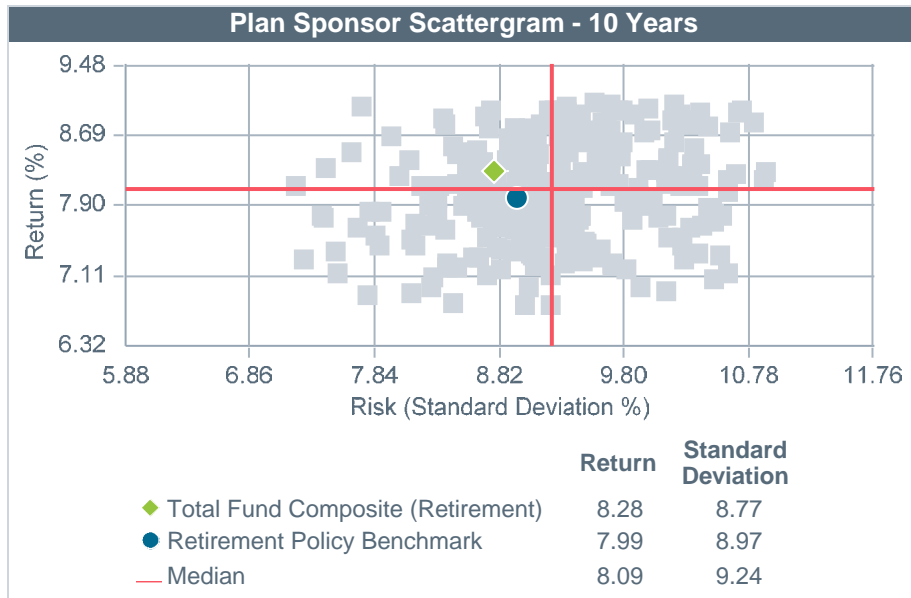
	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Total Fund Composite (Retirement)	3.30	4.89	8.89	10.56	8.47	10.15	8.28	16.53	6.94	1.68	6.86	17.72
Retirement Policy Benchmark	3.07	4.10	7.97	10.15	8.03	9.80	7.99	15.21	8.40	0.71	6.75	16.01
Difference	0.23	0.79	0.92	0.41	0.44	0.35	0.29	1.32	-1.46	0.97	0.11	1.71



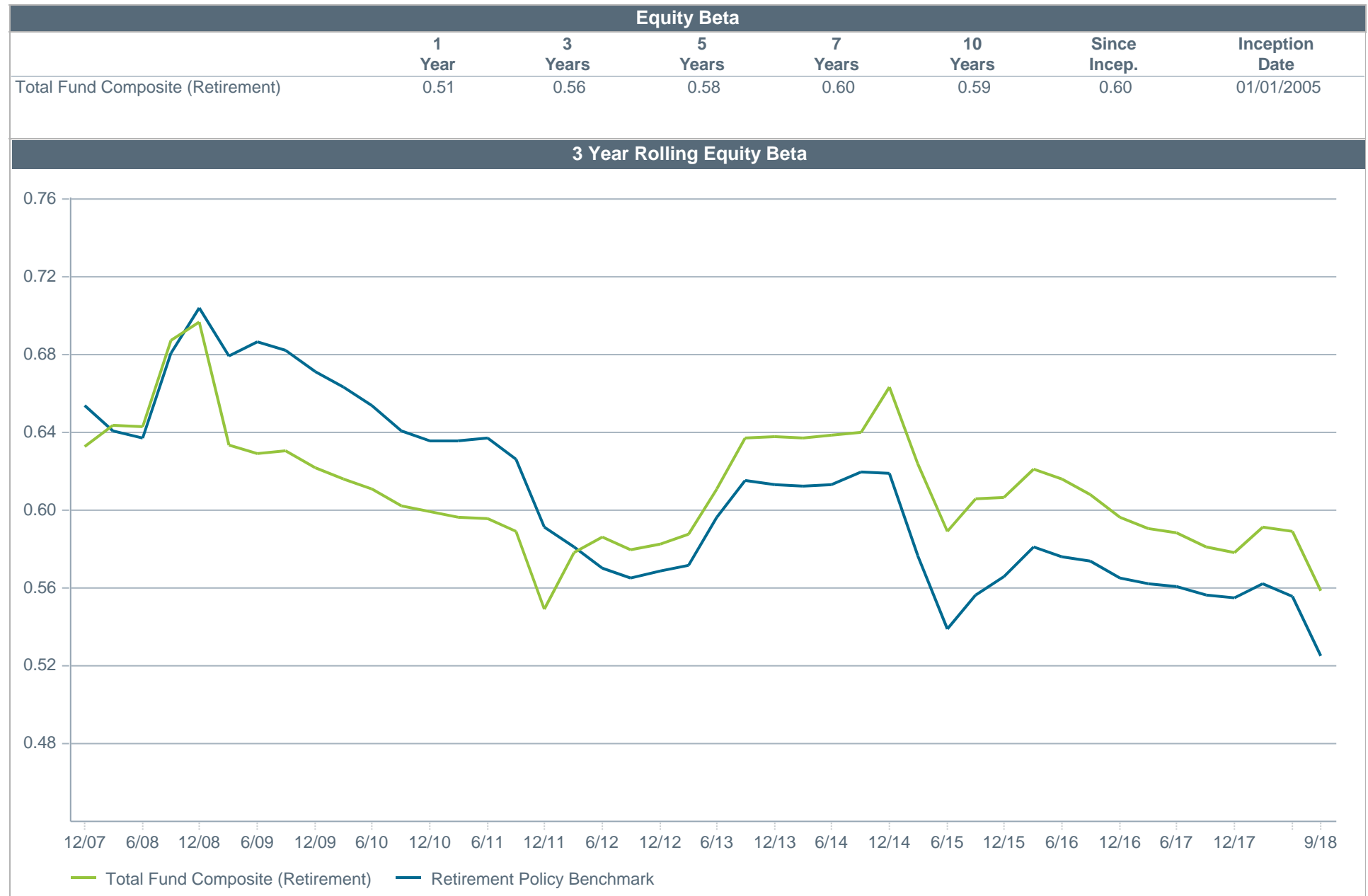
Performance shown is gross of fees. Calculation is based on quarterly periodicity. Fiscal year ends 06/30.

Water and Power Employees' Retirement Plan
Total Fund Composite (Retirement) vs. All Public Plans-Total Fund

As of September 30, 2018



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



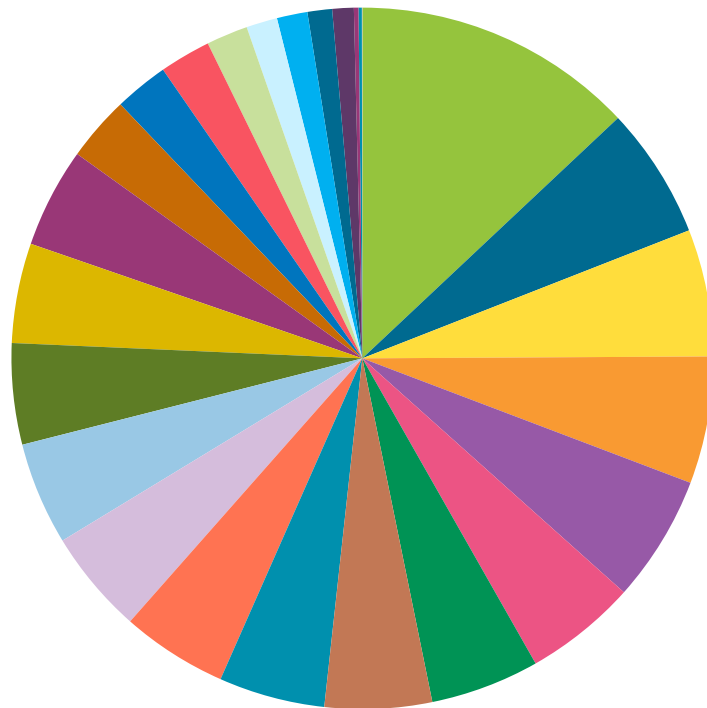
Performance shown is gross of fees. The objective of the Total Fund Beta is to measure the aggregate level of non-diversifiable or systematic equity risk exposure of the Water and Power Employees' Retirement Plan - Retirement. The Total Fund Beta is calculated using the S&P 500 Index (Cap Wtd) as the 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



Asset Allocation by Manager

September 30, 2018 : \$2,160,629,662



	Market Value (\$)	Allocation (%)
BlackRock Russell 1000 Index (CF)	280,576,993	12.99
T. Rowe Price Large Cap Growth (SA)	131,062,160	6.07
JP Morgan Principal Protection (SA)	126,667,673	5.86
Wells Principal Protection (SA)	126,608,131	5.86
Fred Alger Large Cap Growth (SA)	126,234,187	5.84
Neuberger Unconstrained (SA)	111,636,708	5.17
Real Estate Composite	108,421,013	5.02
Macquarie Unconstrained (SA)	106,561,747	4.93
T. Rowe Price Large Cap Value (SA)	105,678,495	4.89
MFS Developed Int'l (SA)	105,447,389	4.88
MFS Large Cap Value (SA)	103,753,994	4.80
Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net	102,305,739	4.73
Fidelity Developed Int'l (SA)	100,524,739	4.65
Private Equity Composite	99,428,872	4.60
BlackRock Developed Int'l - Passive (CF)	99,407,455	4.60
WAMCO (SA)	64,606,243	2.99
Wellington Emerging (SA)	53,874,389	2.49
LA Capital Emerging (CF)	50,876,596	2.35
Cash Equivalents	41,425,683	1.92
Emerald Small Cap Growth (SA)	30,866,997	1.43
Earnest Partners Small Cap Value (SA)	30,469,601	1.41
Pacific Asset Bank Loans (SA)	24,409,865	1.13
Invesco Commodity (CF)	21,409,783	0.99
Molpus IV (CF) (Lagged-1 Qtr)	4,556,289	0.21
Hancock Timberland (CF) (Lagged-1 Qtr)	3,352,285	0.16
MS Convergent (CF) (Lagged-1 Mo)	466,638	0.02
Transition Account	-	0.00

Schedule of Investable Assets - FYTD

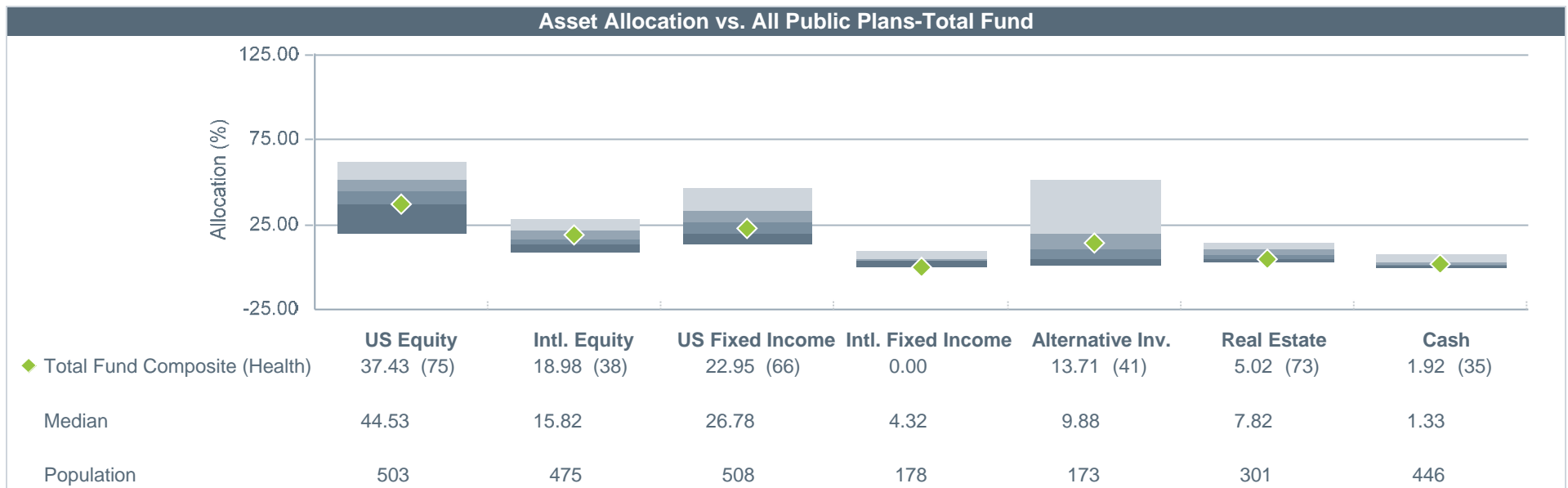
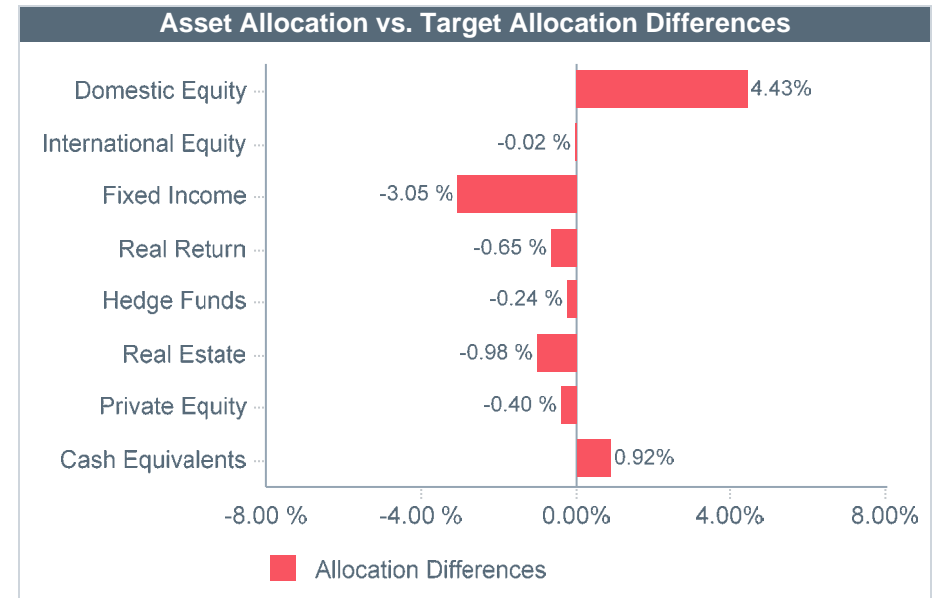
Periods Ending	Beginning Market Value (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
FYTD	2,093,435,423	67,194,239	2,160,629,662	3.38	103.38

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 September 30, 2018

Asset Allocation vs. Target Allocation			
	Market Value (\$)	Allocation (%)	Target (%)
Domestic Equity	808,642,426	37.43	33.00
International Equity	410,130,568	18.98	19.00
Fixed Income	495,884,122	22.95	26.00
Real Return	93,924,600	4.35	5.00
Hedge Funds	102,772,377	4.76	5.00
Real Estate	108,421,013	5.02	6.00
Private Equity	99,428,872	4.60	5.00
Cash Equivalents	41,425,683	1.92	1.00
Total Fund	2,160,629,662	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 September 30, 2018

	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
Total Fund Composite (Health)	3.38	5.03	9.12	10.67	8.47	10.08	8.51	16.75	6.93	1.46	6.68	01/01/2007
Health Policy Benchmark	3.07	4.10	7.97	10.15	8.03	9.73	7.96	15.21	8.40	0.71	6.12	
Difference	0.31	0.93	1.15	0.52	0.44	0.35	0.55	1.54	-1.47	0.75	0.56	
All Public Plans-Total Fund Median	3.15	4.28	8.28	10.04	7.85	9.87	8.09	15.52	7.34	0.17	6.27	
Rank	37	29	31	29	26	44	27	23	61	15	24	
Domestic Equity Composite	7.43	12.51	19.56	18.31	14.42	17.83	12.55	23.37	11.67	1.99	9.15	01/01/2007
Russell 3000 (Blended) (H)	7.12	10.57	17.58	17.07	13.46	16.86	12.04	21.13	12.74	0.48	8.66	
Difference	0.31	1.94	1.98	1.24	0.96	0.97	0.51	2.24	-1.07	1.51	0.49	
All Public Plans-US Equity Segment Median	6.42	10.52	16.83	16.71	12.90	16.54	11.73	20.32	12.98	0.21	8.57	
Rank	13	6	3	2	1	6	7	8	78	8	9	
MFS Large Cap Value (SA)	5.93	2.18	7.48	13.89	11.53	15.71	N/A	17.80	15.76	-0.06	12.74	10/01/2009
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	12.32	
Difference	0.23	-1.74	-1.97	0.34	0.81	0.69	N/A	4.14	-1.58	3.77	0.42	
IM U.S. Large Cap Value Equity (SA+CF) Median	5.65	5.14	11.82	14.61	11.55	15.59	10.87	17.22	14.35	-2.22	12.98	
Rank	43	89	91	65	53	48	N/A	44	38	29	59	
MFS Large Cap Value (SA) - Net	5.85	1.95	7.16	13.55	11.19	15.36	N/A	17.45	15.41	-0.38	12.39	10/01/2009
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	12.32	
Difference	0.15	-1.97	-2.29	0.00	0.47	0.34	N/A	3.79	-1.93	3.45	0.07	
T. Rowe Price Large Cap Value (SA)	4.90	4.45	10.09	15.60	11.92	16.22	N/A	16.73	17.11	-1.77	13.38	10/01/2009
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	12.32	
Difference	-0.80	0.53	0.64	2.05	1.20	1.20	N/A	3.07	-0.23	2.06	1.06	
IM U.S. Large Cap Value Equity (SA+CF) Median	5.65	5.14	11.82	14.61	11.55	15.59	10.87	17.22	14.35	-2.22	12.98	
Rank	68	61	69	29	39	34	N/A	59	26	47	40	
T. Rowe Price Large Cap Value (SA) - Net	4.82	4.22	9.77	15.26	11.59	15.88	N/A	16.38	16.77	-2.06	13.04	10/01/2009
Russell 1000 Val Index	5.70	3.92	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	12.32	
Difference	-0.88	0.30	0.32	1.71	0.87	0.86	N/A	2.72	-0.57	1.77	0.72	

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	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
BlackRock Russell 1000 Index (CF)	7.42	10.50	17.79	17.11	13.70	16.93	12.13	21.70	12.12	0.91	8.80	01/01/2007
Russell 1000 Index	7.42	10.49	17.76	17.07	13.67	16.90	12.09	21.69	12.05	0.92	8.70	
Difference	0.00	0.01	0.03	0.04	0.03	0.03	0.04	0.01	0.07	-0.01	0.10	
IM U.S. Large Cap Core Equity (SA+CF) Median	7.13	9.83	17.25	16.23	13.55	16.86	12.03	21.82	10.52	1.41	8.90	
Rank	42	38	42	34	48	46	44	52	31	57	58	
BlackRock Russell 1000 Index (CF) - Net	7.42	10.50	17.79	17.11	13.69	16.93	12.10	21.70	12.12	0.90	8.76	01/01/2007
Russell 1000 Index	7.42	10.49	17.76	17.07	13.67	16.90	12.09	21.69	12.05	0.92	8.70	
Difference	0.00	0.01	0.03	0.04	0.02	0.03	0.01	0.01	0.07	-0.02	0.06	
Fred Alger Large Cap Growth (SA)	12.21	29.71	36.32	21.10	16.54	18.54	N/A	29.33	0.37	1.77	15.78	10/01/2009
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	16.26	
Difference	3.04	12.62	10.02	0.55	-0.04	-0.15	N/A	-0.88	-6.71	-3.90	-0.48	
IM U.S. Large Cap Growth Equity (SA+CF) Median	8.17	16.17	24.42	18.85	15.59	18.13	13.73	28.11	4.65	5.02	15.50	
Rank	1	2	3	16	32	43	N/A	42	85	77	44	
Fred Alger Large Cap Growth (SA) - Net	12.13	29.43	35.93	20.75	16.22	18.20	N/A	28.96	0.08	1.48	15.41	10/01/2009
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	16.26	
Difference	2.96	12.34	9.63	0.20	-0.36	-0.49	N/A	-1.25	-7.00	-4.19	-0.85	
T. Rowe Price Large Cap Growth (SA)	7.49	20.71	30.18	24.37	19.32	22.14	N/A	36.61	5.70	12.53	17.55	05/01/2010
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	15.64	
Difference	-1.68	3.62	3.88	3.82	2.74	3.45	N/A	6.40	-1.38	6.86	1.91	
IM U.S. Large Cap Growth Equity (SA+CF) Median	8.17	16.17	24.42	18.85	15.59	18.13	13.73	28.11	4.65	5.02	14.97	
Rank	63	19	15	3	5	1	N/A	5	41	7	7	
T. Rowe Price Large Cap Growth (SA) - Net	7.41	20.43	29.77	23.97	18.94	21.75	N/A	36.17	5.35	12.16	17.16	05/01/2010
Russell 1000 Grth Index	9.17	17.09	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	15.64	
Difference	-1.76	3.34	3.47	3.42	2.36	3.06	N/A	5.96	-1.73	6.49	1.52	
Earnest Partners Small Cap Value (SA)	2.82	4.99	12.09	19.42	13.63	18.15	N/A	23.09	24.78	-2.27	15.38	10/01/2009
Russell 2000 Val Index	1.60	7.14	9.33	16.12	9.91	15.26	9.52	7.84	31.74	-7.47	12.31	
Difference	1.22	-2.15	2.76	3.30	3.72	2.89	N/A	15.25	-6.96	5.20	3.07	
IM U.S. Small Cap Value Equity (SA+CF) Median	1.62	5.37	9.07	15.12	10.77	16.31	12.09	11.61	26.17	-4.29	13.91	
Rank	35	56	29	9	3	14	N/A	5	59	31	17	
Earnest Partners Small Cap Value (SA) - Net	2.68	4.56	11.47	18.75	13.00	17.49	N/A	22.41	24.07	-2.82	14.71	10/01/2009
Russell 2000 Val Index	1.60	7.14	9.33	16.12	9.91	15.26	9.52	7.84	31.74	-7.47	12.31	
Difference	1.08	-2.58	2.14	2.63	3.09	2.23	N/A	14.57	-7.67	4.65	2.40	

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	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
Emerald Small Cap Growth (SA)	7.21	15.26	24.42	N/A	N/A	N/A	N/A	29.57	10.14	N/A	16.93	12/01/2015
Russell 2000 Grth Index	5.52	15.76	21.06	17.98	12.14	17.52	12.65	22.17	11.32	-1.38	15.36	
Difference	1.69	-0.50	3.36	N/A	N/A	N/A	N/A	7.40	-1.18	N/A	1.57	
IM U.S. Small Cap Growth Equity (SA+CF) Median	7.71	20.97	26.92	19.56	13.35	18.69	14.04	23.91	11.40	-0.74	17.53	
Rank	58	75	60	N/A	N/A	N/A	N/A	21	56	N/A	56	
Emerald Small Cap Growth (SA) - Net	7.05	14.75	23.68	N/A	N/A	N/A	N/A	28.81	9.49	N/A	16.23	12/01/2015
Russell 2000 Grth Index	5.52	15.76	21.06	17.98	12.14	17.52	12.65	22.17	11.32	-1.38	15.36	
Difference	1.53	-1.01	2.62	N/A	N/A	N/A	N/A	6.64	-1.83	N/A	0.87	
International Equity Composite	0.96	-1.95	3.19	10.78	5.98	8.28	N/A	29.29	3.06	-1.40	6.00	09/01/2009
MSCI ACW Ex US IM Index (Net)	0.39	-3.27	1.79	10.14	4.39	7.49	5.60	27.81	4.41	-4.60	5.95	
Difference	0.57	1.32	1.40	0.64	1.59	0.79	N/A	1.48	-1.35	3.20	0.05	
All Public Plans-Intl. Equity Segment Median	0.71	-2.03	2.76	10.78	5.39	8.86	6.44	28.61	3.99	-2.60	7.11	
Rank	36	49	37	51	26	72	N/A	39	70	28	92	
BlackRock Developed Int'l - Passive (CF)	1.04	-1.22	3.24	10.21	5.05	N/A	N/A	25.71	3.45	-1.62	7.76	10/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	7.32	
Difference	0.06	0.40	0.46	0.49	0.43	N/A	N/A	0.54	0.50	0.33	0.44	
IM All EAFE (SA+CF) Median	1.20	-1.70	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	8.35	
Rank	54	41	38	37	59	N/A	N/A	59	22	75	68	
BlackRock Developed Int'l - Passive (CF) - Net	1.04	-1.22	3.24	10.20	5.03	N/A	N/A	25.71	3.45	-1.65	7.75	10/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	7.32	
Difference	0.06	0.40	0.46	0.48	0.41	N/A	N/A	0.54	0.50	0.30	0.43	
MFS Developed Int'l (SA)	2.35	2.37	8.49	11.34	8.31	N/A	N/A	27.12	-0.29	7.13	11.89	08/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	8.16	
Difference	1.37	3.99	5.71	1.62	3.69	N/A	N/A	1.95	-3.24	9.08	3.73	
IM All EAFE (SA+CF) Median	1.20	-1.70	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	9.13	
Rank	16	12	9	16	7	N/A	N/A	42	70	7	6	
MFS Developed Int'l (SA) - Net	2.27	2.11	8.13	10.96	7.95	N/A	N/A	26.69	-0.64	6.79	11.52	08/01/2012
MSCI Wrld Ex US IM Index (USD) (Net)	0.98	-1.62	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	8.16	
Difference	1.29	3.73	5.35	1.24	3.33	N/A	N/A	1.52	-3.59	8.74	3.36	

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	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
Fidelity Developed Int'l (SA)	1.25	-0.51	2.96	8.97	4.68	8.84	N/A	25.16	-0.67	0.98	6.68	10/01/2009
International Developed Blend	0.98	-1.62	2.78	9.72	4.62	8.20	6.12	25.17	2.95	-1.95	5.81	
Difference	0.27	1.11	0.18	-0.75	0.06	0.64	N/A	-0.01	-3.62	2.93	0.87	
IM All EAFE (SA+CF) Median	1.20	-1.70	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	7.23	
Rank	48	31	42	64	72	75	N/A	67	73	55	67	
Fidelity Developed Int'l (SA) - Net	1.18	-0.72	2.67	8.67	4.39	8.53	N/A	24.81	-0.94	0.71	6.37	10/01/2009
International Developed Blend	0.98	-1.62	2.78	9.72	4.62	8.20	6.12	25.17	2.95	-1.95	5.81	
Difference	0.20	0.90	-0.11	-1.05	-0.23	0.33	N/A	-0.36	-3.89	2.66	0.56	
LA Capital Emerging (CF)	-0.01	-7.58	-0.88	12.09	4.17	N/A	N/A	37.13	12.11	-15.10	4.02	10/01/2012
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	3.16	
Difference	1.44	0.64	0.30	0.37	0.66	N/A	N/A	0.30	2.21	-1.24	0.86	
IM Emerging Markets Equity (SA+CF) Median	-2.21	-8.54	-2.53	12.04	4.33	6.31	6.73	36.95	10.09	-12.62	4.39	
Rank	22	30	30	50	55	N/A	N/A	49	35	72	60	
LA Capital Emerging (CF) - Net	-0.18	-8.03	-1.52	11.36	3.51	N/A	N/A	36.24	11.39	-15.65	3.35	10/01/2012
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	3.16	
Difference	1.27	0.19	-0.34	-0.36	0.00	N/A	N/A	-0.59	1.49	-1.79	0.19	
Wellington Emerging (SA)	-1.41	-7.99	-2.08	N/A	N/A	N/A	N/A	40.87	N/A	N/A	11.42	10/01/2016
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	9.54	
Difference	0.04	0.23	-0.90	N/A	N/A	N/A	N/A	4.04	N/A	N/A	1.88	
IM Emerging Markets Equity (SA+CF) Median	-2.21	-8.54	-2.53	12.04	4.33	6.31	6.73	36.95	10.09	-12.62	9.43	
Rank	40	39	46	N/A	N/A	N/A	N/A	30	N/A	N/A	24	
Wellington Emerging (SA) - Net	-1.56	-8.38	-2.64	N/A	N/A	N/A	N/A	40.07	N/A	N/A	10.79	10/01/2016
MSCI Emg Mkts IM Index (USD) (Net)	-1.45	-8.22	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	9.54	
Difference	-0.11	-0.16	-1.46	N/A	N/A	N/A	N/A	3.24	N/A	N/A	1.25	

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Fixed Income Composite	0.71	-0.16	0.32	2.98	3.33	3.42	5.34	4.89	4.85	0.83	5.27	01/01/2007
Fixed Income Custom Index (H)	0.68	-0.36	0.04	2.97	3.03	2.92	4.43	4.12	5.65	0.11	4.41	
Difference	0.03	0.20	0.28	0.01	0.30	0.50	0.91	0.77	-0.80	0.72	0.86	
All Public Plans-US Fixed Income Segment Median	0.41	-0.89	-0.20	2.75	2.92	3.24	5.26	4.54	4.54	0.26	4.47	
Rank	19	23	31	45	42	43	46	43	42	27	24	
JP Morgan Principal Protection (SA)	0.06	-0.48	-0.62	0.86	N/A	N/A	N/A	1.87	1.92	N/A	1.12	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.15	0.42	0.41	0.28	N/A	N/A	N/A	0.07	0.52	N/A	0.33	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-1.29	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	2.02	
Rank	75	10	36	100	N/A	N/A	N/A	100	97	N/A	99	
JP Morgan Principal Protection (SA) - Net	0.03	-0.55	-0.72	0.76	N/A	N/A	N/A	1.77	1.81	N/A	1.02	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.12	0.35	0.31	0.18	N/A	N/A	N/A	-0.03	0.41	N/A	0.23	
Wells Principal Protection (SA)	-0.06	-0.83	-1.01	0.79	N/A	N/A	N/A	1.94	1.85	N/A	0.99	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.03	0.07	0.02	0.21	N/A	N/A	N/A	0.14	0.45	N/A	0.20	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-1.29	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	2.02	
Rank	91	17	71	100	N/A	N/A	N/A	100	98	N/A	100	
Wells Principal Protection (SA) - Net	-0.08	-0.91	-1.12	0.68	N/A	N/A	N/A	1.83	1.72	N/A	0.88	09/01/2015
Bloomberg US Int Agg Ex Credit	-0.09	-0.90	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	0.79	
Difference	0.01	-0.01	-0.09	0.10	N/A	N/A	N/A	0.03	0.32	N/A	0.09	
Macquarie Unconstrained (SA)	0.91	-1.23	-0.34	4.63	N/A	N/A	N/A	7.99	8.35	N/A	4.24	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	-0.48	-0.94	-0.96	-0.74	N/A	N/A	N/A	1.26	-1.69	N/A	-0.69	
IM Global Fixed Income (SA+CF) Median	0.49	-0.53	0.32	3.94	2.78	3.43	4.65	7.63	5.76	-2.37	3.49	
Rank	41	59	59	39	N/A	N/A	N/A	44	35	N/A	37	
Macquarie Unconstrained (SA) - Net	0.87	-1.35	-0.51	4.45	N/A	N/A	N/A	7.81	8.17	N/A	4.06	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	-0.52	-1.06	-1.13	-0.92	N/A	N/A	N/A	1.08	-1.87	N/A	-0.87	

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Neuberger Unconstrained (SA)	1.95	1.18	2.70	6.64	N/A	N/A	N/A	9.42	9.48	N/A	6.37	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	0.56	1.47	2.08	1.27	N/A	N/A	N/A	2.69	-0.56	N/A	1.44	
IM Global Fixed Income (SA+CF) Median	0.49	-0.53	0.32	3.94	2.78	3.43	4.65	7.63	5.76	-2.37	3.49	
Rank	20	25	17	21	N/A	N/A	N/A	25	31	N/A	14	
Neuberger Unconstrained (SA) - Net	1.89	1.01	2.46	6.40	N/A	N/A	N/A	9.17	9.23	N/A	6.12	09/01/2015
67% B Global Credit/33% B Global High Yield	1.39	-0.29	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	4.93	
Difference	0.50	1.30	1.84	1.03	N/A	N/A	N/A	2.44	-0.81	N/A	1.19	
Pacific Asset Bank Loans (SA)	1.68	3.70	4.84	5.94	N/A	N/A	N/A	5.40	9.37	N/A	5.73	09/01/2015
CS Lvg'd Loan Index	1.93	4.36	5.58	5.43	4.35	5.45	5.85	4.25	9.88	-0.38	5.05	
Difference	-0.25	-0.66	-0.74	0.51	N/A	N/A	N/A	1.15	-0.51	N/A	0.68	
IM U.S. Bank Loans (SA+CF) Median	1.88	4.14	5.41	5.45	4.48	5.73	6.26	4.46	9.51	0.68	5.05	
Rank	85	82	79	21	N/A	N/A	N/A	7	54	N/A	17	
Pacific Asset Bank Loans (SA) - Net	1.60	3.45	4.51	5.60	N/A	N/A	N/A	5.06	9.02	N/A	5.39	09/01/2015
CS Lvg'd Loan Index	1.93	4.36	5.58	5.43	4.35	5.45	5.85	4.25	9.88	-0.38	5.05	
Difference	-0.33	-0.91	-1.07	0.17	N/A	N/A	N/A	0.81	-0.86	N/A	0.34	
Real Return Composite	-1.04	-1.10	2.21	3.62	2.14	2.18	N/A	3.97	9.56	-2.58	3.12	04/01/2010
CPI+3% (Blended)	1.20	3.93	5.34	5.06	4.58	4.22	3.92	5.17	5.15	3.68	4.03	
Difference	-2.24	-5.03	-3.13	-1.44	-2.44	-2.04	N/A	-1.20	4.41	-6.26	-0.91	
Invesco Commodity (CF)	-3.17	-3.72	3.93	3.52	-4.35	N/A	N/A	5.95	14.05	-15.83	-4.83	09/01/2013
Bloomberg Cmdty Index (TR)	-2.02	-2.03	2.59	-0.11	-7.18	-6.48	-6.24	1.70	11.77	-24.66	-7.54	
Difference	-1.15	-1.69	1.34	3.63	2.83	N/A	N/A	4.25	2.28	8.83	2.71	
Invesco Commodity (CF) - Net	-3.32	-4.18	3.26	2.85	-4.97	N/A	N/A	5.26	13.30	-16.41	-5.43	09/01/2013
Bloomberg Cmdty Index (TR)	-2.02	-2.03	2.59	-0.11	-7.18	-6.48	-6.24	1.70	11.77	-24.66	-7.54	
Difference	-1.30	-2.15	0.67	2.96	2.21	N/A	N/A	3.56	1.53	8.25	2.11	
Hancock Timberland (CF) (Lagged-1 Qtr) - Net	-0.63	0.73	0.33	3.10	N/A	N/A	N/A	4.65	4.81	-0.34	1.73	04/01/2014
NCREIF Timberland Index (Lagged-1 Qtr)	0.48	2.95	3.57	3.43	6.00	5.76	4.01	3.28	3.28	9.26	5.09	
Difference	-1.11	-2.22	-3.24	-0.33	N/A	N/A	N/A	1.37	1.53	-9.60	-3.36	
Molpus IV (CF) (Lagged-1 Qtr) - Net	0.55	1.94	2.17	1.69	N/A	N/A	N/A	4.52	-1.91	N/A	-3.94	09/01/2015
NCREIF Timberland Index (Lagged-1 Qtr)	0.48	2.95	3.57	3.43	6.00	5.76	4.01	3.28	3.28	9.26	3.51	
Difference	0.07	-1.01	-1.40	-1.74	N/A	N/A	N/A	1.24	-5.19	N/A	-7.45	

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 September 30, 2018

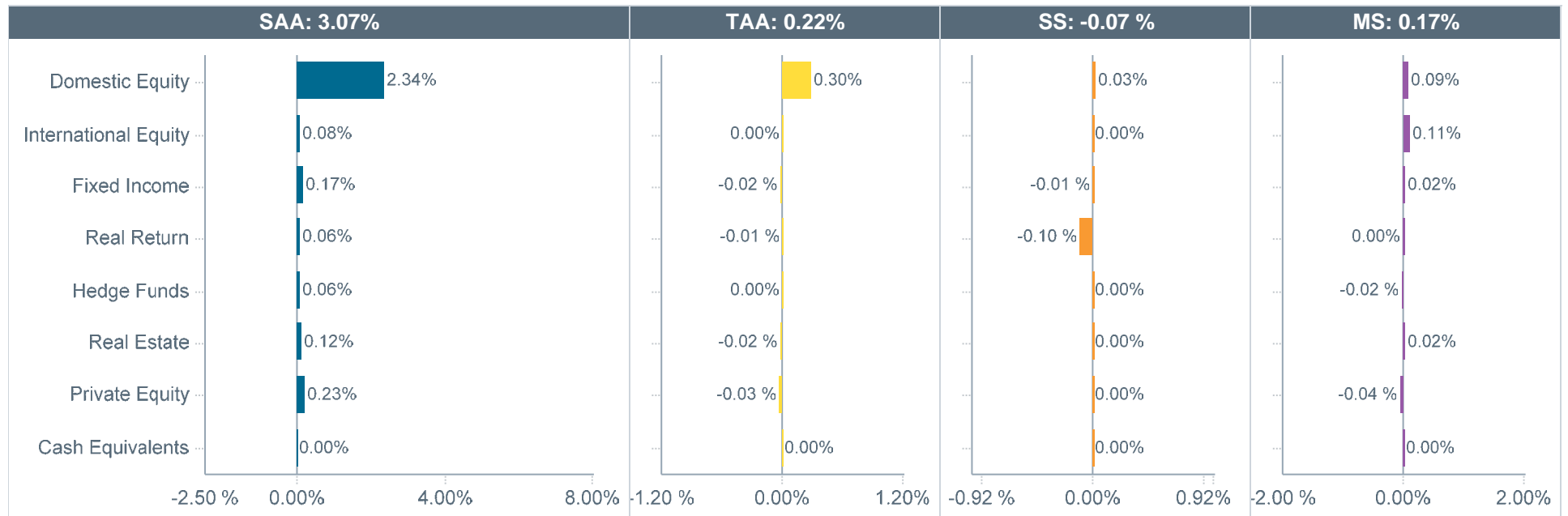
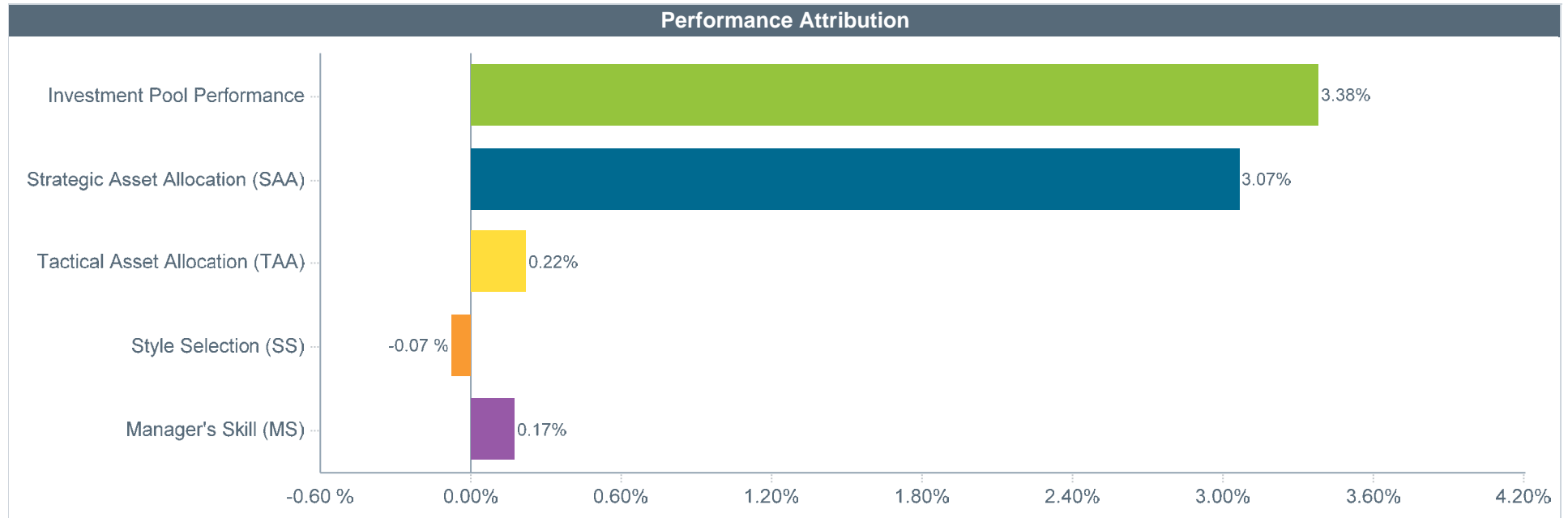
	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	Since Incep.	Inception Date
WAMCO (SA)	-0.45	-0.50	1.76	3.88	3.88	3.30	N/A	3.29	9.36	-0.18	3.80	05/01/2010
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	-0.84	-0.44	2.06	3.93	3.80	3.33	4.38	3.32	10.22	-1.12	4.02	
Difference	0.39	-0.06	-0.30	-0.05	0.08	-0.03	N/A	-0.03	-0.86	0.94	-0.22	
WAMCO (SA) - Net	-0.49	-0.63	1.58	3.70	3.70	3.11	N/A	3.11	9.17	-0.35	3.62	05/01/2010
Bloomberg Wrld Gov't Infl Lnk'd Index (Hedged)	-0.84	-0.44	2.06	3.93	3.80	3.33	4.38	3.32	10.22	-1.12	4.02	
Difference	0.35	-0.19	-0.48	-0.23	-0.10	-0.22	N/A	-0.21	-1.05	0.77	-0.40	
Hedge Funds Composite - Net	0.81	2.47	3.60	1.07	2.13	3.28	N/A	3.91	-2.30	1.24	3.30	09/01/2010
ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.25	3.53	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	3.35	
Difference	-0.44	-1.06	-0.97	-2.74	-1.37	-0.10	N/A	0.10	-5.63	-1.78	-0.05	
Blackstone Hope St. LP (CF) (Lagged-1 Mo) - Net	0.81	2.32	3.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.06	09/01/2017
ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.25	3.53	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	4.54	
Difference	-0.44	-1.21	-1.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-1.48	
MS Convergent (CF) (Lagged-1 Mo) - Net	0.83	6.23	9.16	3.17	N/A	N/A	N/A	7.39	-1.27	-1.34	2.48	03/01/2014
ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)	1.25	3.53	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	3.54	
Difference	-0.42	2.70	4.59	-0.64	N/A	N/A	N/A	3.58	-4.60	-4.36	-1.06	

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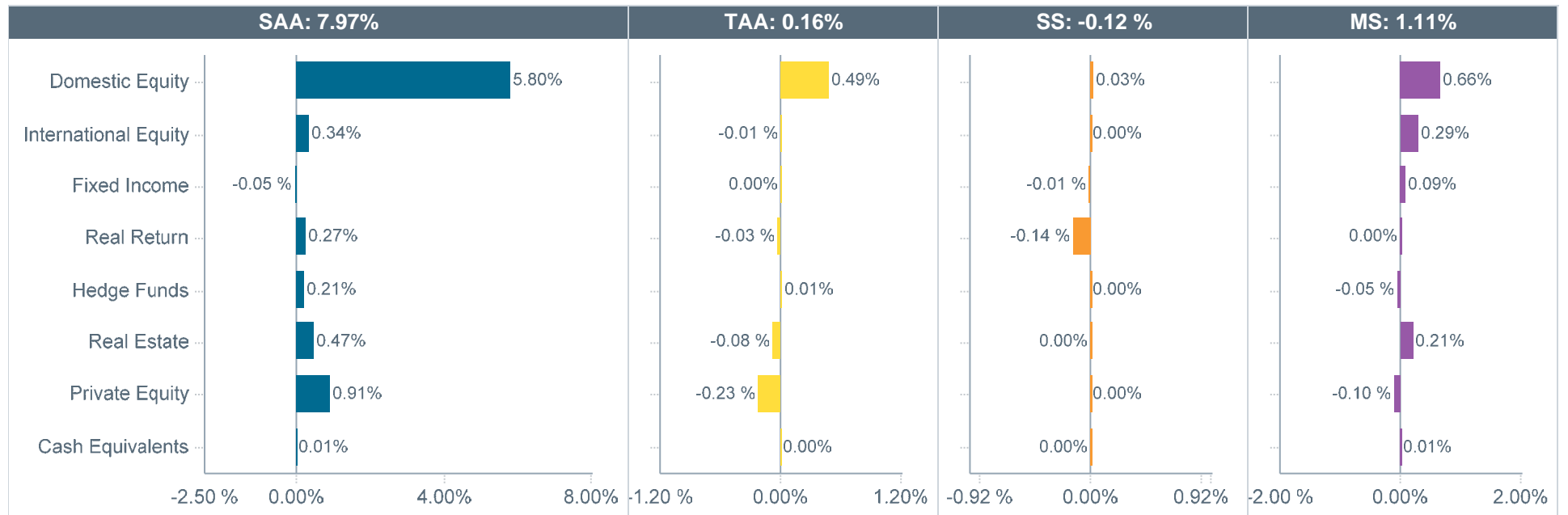
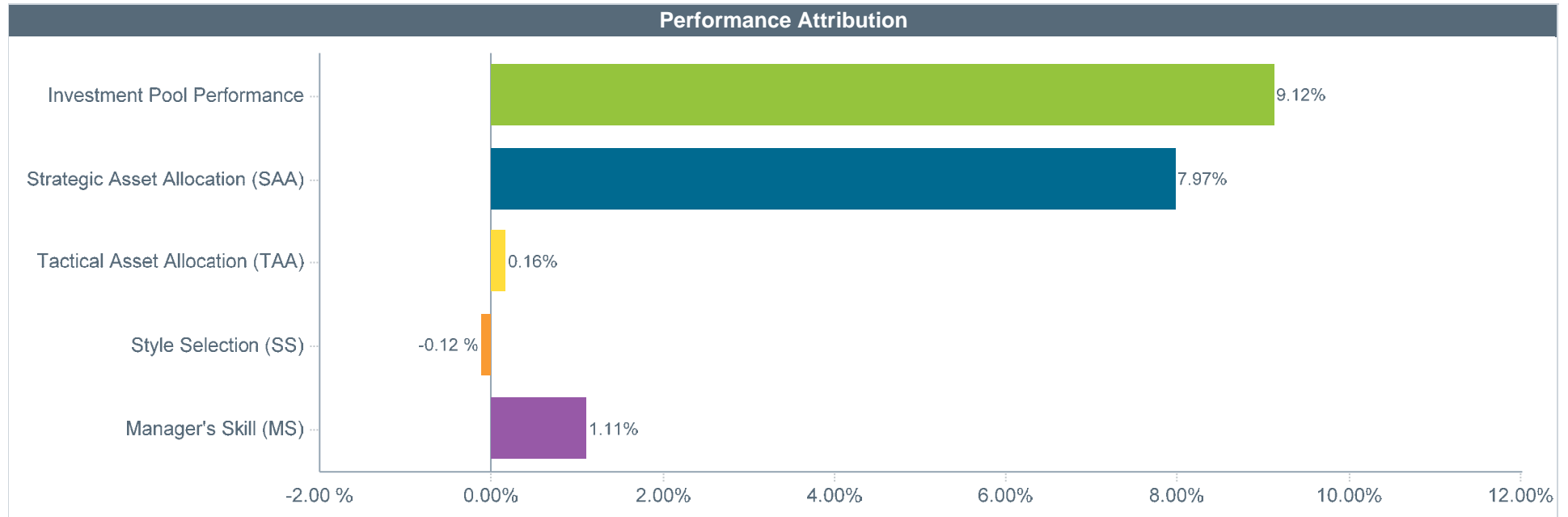
Water and Power Employees' Retirement Plan
Alternative Investment Fund Performance Listing - Health

As of June 30, 2018

	Market Value (\$)	% of Alt. Inv. Group	% of Total Fund	Inception IRR	Inception Date
Private Equity	88,847,203	45.25%	4.24%	16.13%	Aug-09
Adams Street SMB I	2,749,863	1.40%	0.13%	-4.59%	Jan-17
Apollo VIII	5,262,807	2.68%	0.25%	18.38%	Jan-14
Ares IV	4,657,423	2.37%	0.22%	16.17%	Nov-12
Ares Special Situation IV	4,954,739	2.52%	0.24%	-8.76%	Jan-15
Ares V	3,691,441	1.88%	0.18%	15.84%	Jan-15
Audax Mezz III	906,383	0.46%	0.04%	12.10%	Jan-11
Blackstone Tactical Opps	6,477,760	3.30%	0.31%	18.34%	Apr-15
CDR IX	4,142,050	2.11%	0.20%	18.73%	Apr-14
CDR X	960,488	0.49%	0.05%	-10.51%	Mar-18
Crestview Partners III	4,026,816	2.05%	0.19%	22.09%	Feb-15
EnCap VIII	785,865	0.40%	0.04%	-0.05%	Jan-11
EnCap IX	2,163,053	1.10%	0.10%	17.54%	Jan-13
EnCap X	4,967,958	2.53%	0.24%	17.55%	Feb-15
EnCap XI	666,632	0.34%	0.03%	14.27%	Jun-17
Harvest VII	3,289,980	1.68%	0.16%	24.22%	Nov-15
Industry Ventures VIII	896,488	0.46%	0.04%	94.44%	Aug-16
Landmark XIV	1,275,160	0.65%	0.06%	12.73%	Aug-08
Landmark XV	3,196,589	1.63%	0.15%	17.27%	Feb-14
Lexington VII	1,650,793	0.84%	0.08%	17.21%	Aug-09
Oaktree V	1,154,835	0.59%	0.06%	6.19%	Jan-09
Silver Lake IV	3,512,794	1.79%	0.17%	33.87%	Sep-13
Silver Lake V	883,210	0.45%	0.04%	-8.66%	Feb-17
Vista IV	4,004,159	2.04%	0.19%	20.71%	Sep-11
Vista V	13,057,565	6.65%	0.62%	26.35%	Apr-14
Vista VI	9,512,352	4.84%	0.45%	12.96%	Jun-16
Real Estate	107,492,384	54.75%	5.13%	13.32%	Jan-10
AG Core Plus III	508,414	0.26%	0.02%	24.42%	Jan-12
Almanac VI	707,156	0.36%	0.03%	16.95%	Jun-12
Almanac VII	3,740,795	1.91%	0.18%	18.68%	Mar-15
BREP Europe IV	3,091,200	1.57%	0.15%	17.64%	Dec-13
BREP VII	4,205,116	2.14%	0.20%	19.82%	Jun-12
Bristol Value II	3,141,392	1.60%	0.15%	13.16%	Nov-12
Dimensional Global REIT	6,259,648	3.19%	0.30%	6.87%	Mar-13
DRA G&I IX	3,506,265	1.79%	0.17%	21.04%	Sep-16
DRA G&I VIII	2,267,899	1.16%	0.11%	13.54%	Jun-14
DRA VII	4,199,368	2.14%	0.20%	22.69%	Oct-11
FPA Core Plus III	8,450,228	4.30%	0.40%	3.96%	Jan-17
Harrison Street Core	12,101,309	6.16%	0.58%	9.19%	Aug-15
Heitman REIT	6,032,146	3.07%	0.29%	8.71%	Sep-13
Invesco Core Realty	9,488,344	4.83%	0.45%	11.03%	Jun-11
Jamestown Premier	8,693,069	4.43%	0.42%	10.60%	Mar-15
LaSalle Asia V	426,481	0.22%	0.02%	-33.96%	Nov-17
Lone Star RE II	58,928	0.03%	0.00%	-33.96%	May-11
Lone Star RE IV	5,097,365	2.60%	0.24%	28.44%	Jun-15
Lone Star VII	11,492	0.01%	0.00%	16.13%	May-11
Lone Star RE V	1,254,220	0.64%	0.06%	18.34%	Aug-17
Mesa West III	1,758,419	0.90%	0.08%	10.27%	Aug-13
Mesa West IV	3,119,897	1.59%	0.15%	7.77%	Feb-16
PCCP First Mtg II	864	0.00%	0.00%	7.17%	Jun-12
Prologis USLH	7,958,998	4.05%	0.38%	17.45%	Mar-15
Torchlight IV	2,998,388	1.53%	0.14%	12.63%	Aug-13
Torchlight V	4,064,631	2.07%	0.19%	15.35%	Mar-15
Torchlight VI	685,897	0.35%	0.03%	-1.81%	Feb-18
Westbrook X	3,664,454	1.87%	0.18%	22.42%	Feb-16



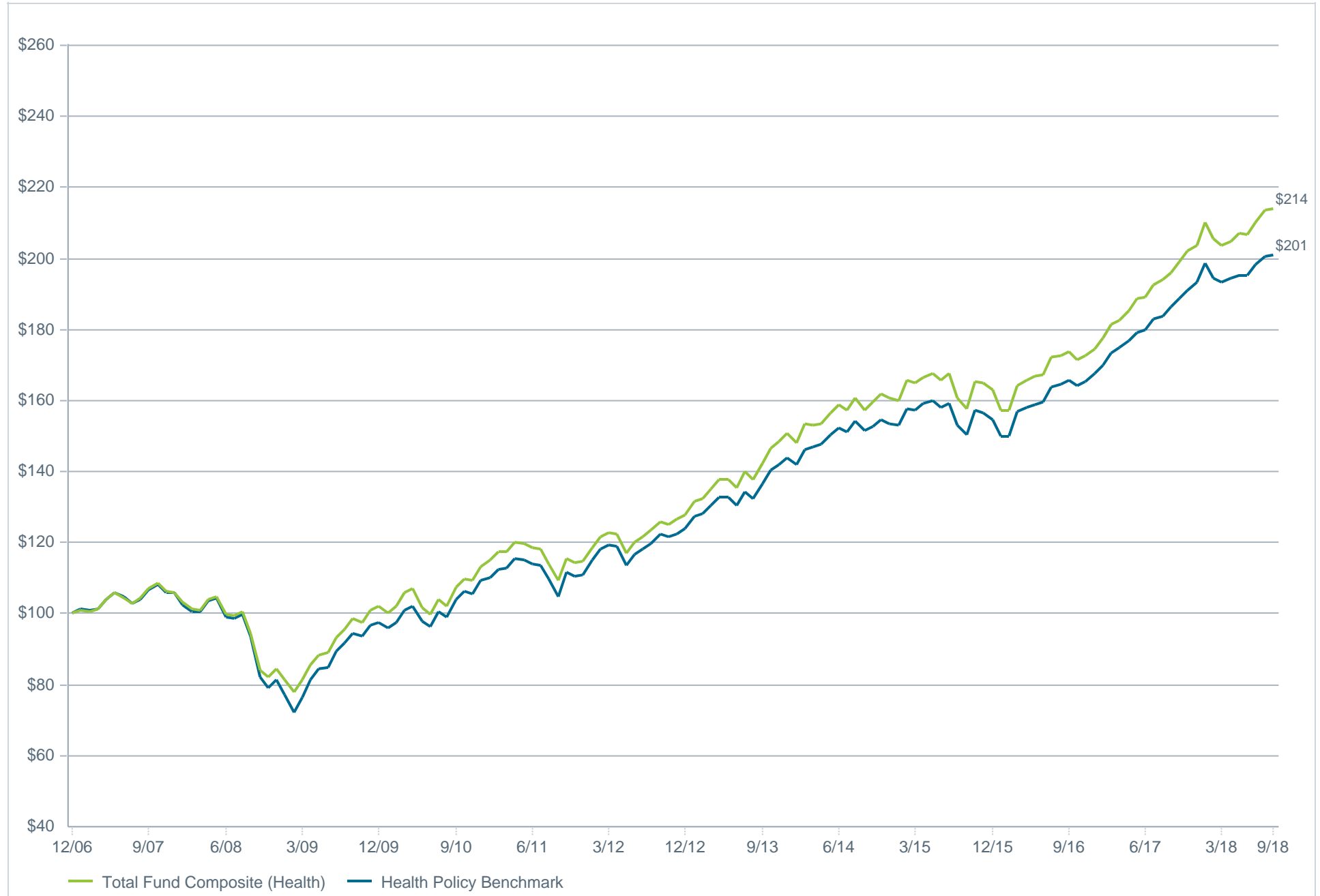
Performance shown is gross of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



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

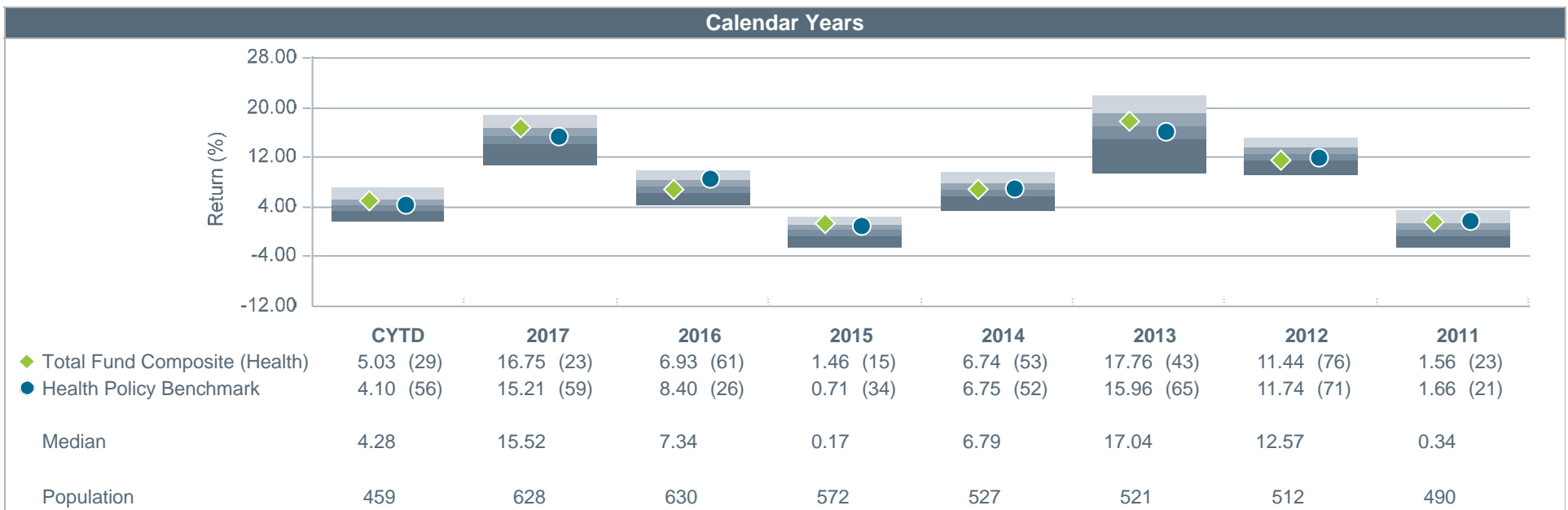
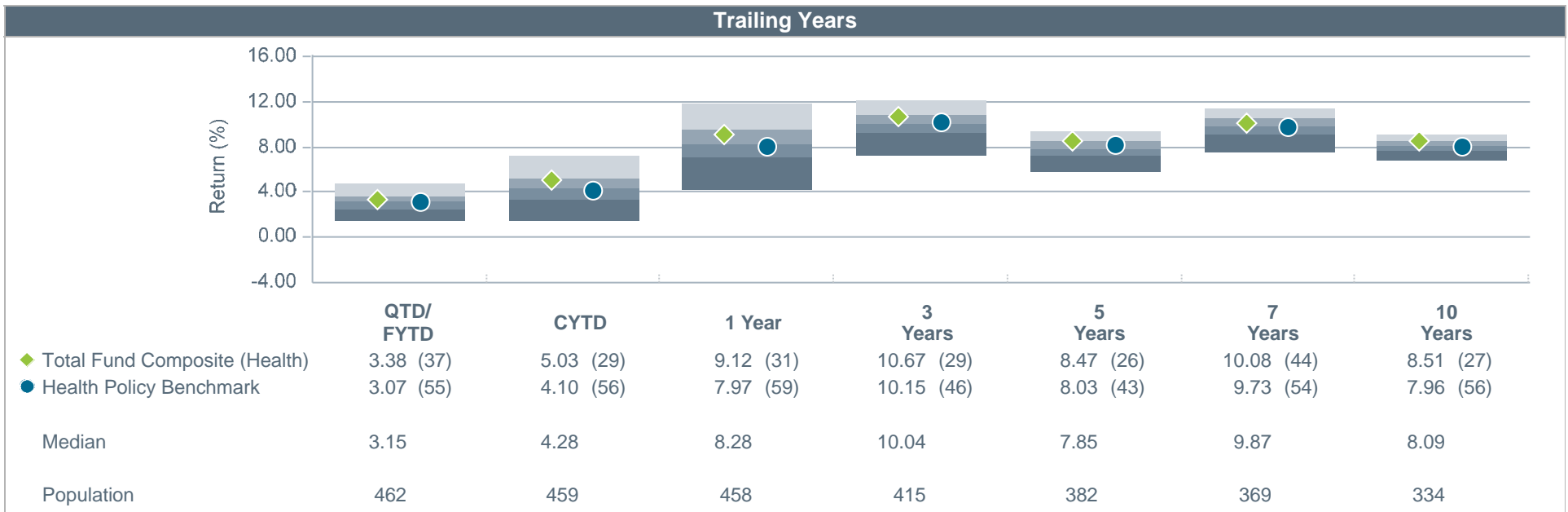
Since Inception Ending September 30, 2018



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 September 30, 2018

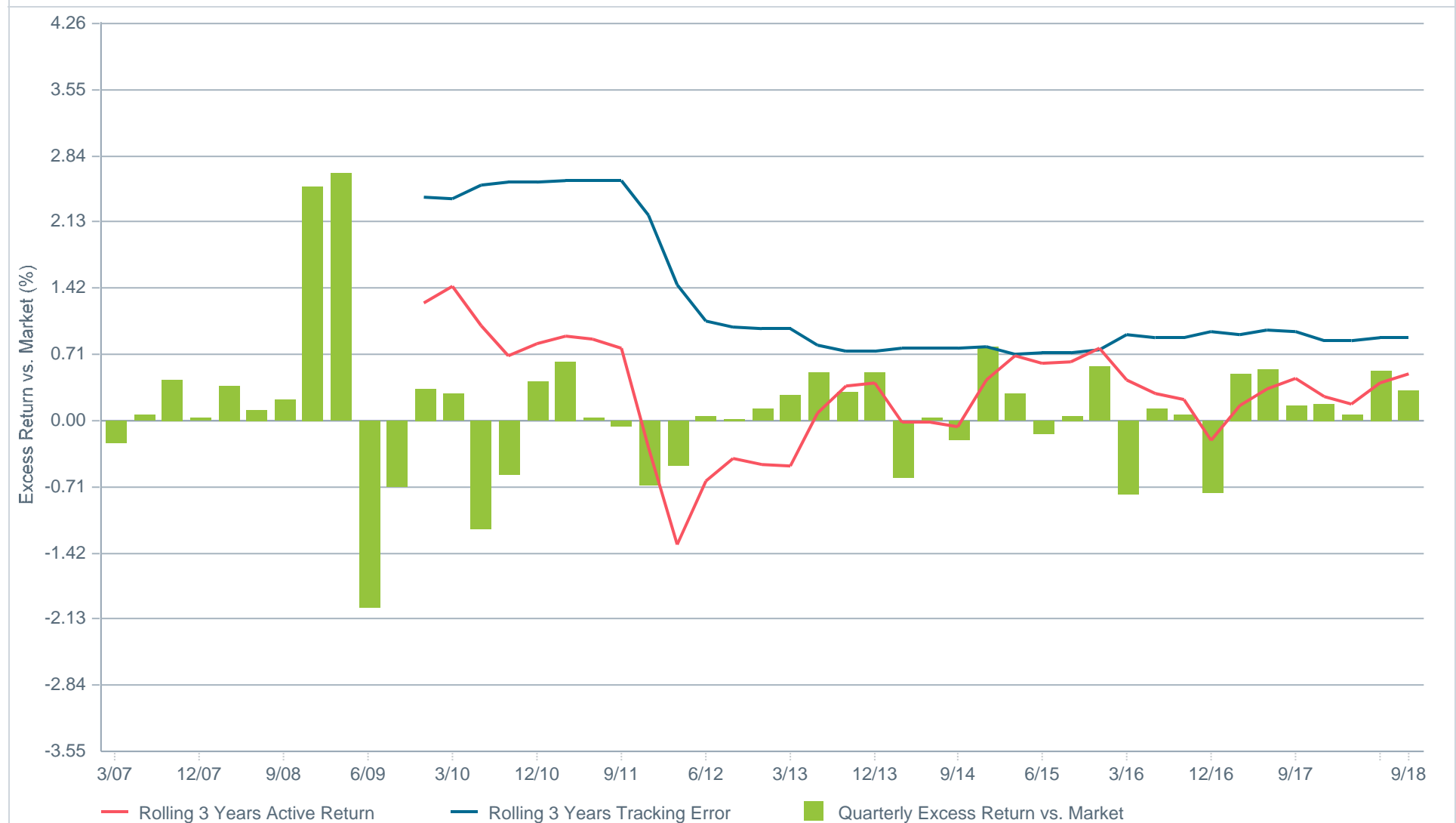


Performance shown is gross of fees. Parenthesis contain percentile ranks.

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

As of September 30, 2018

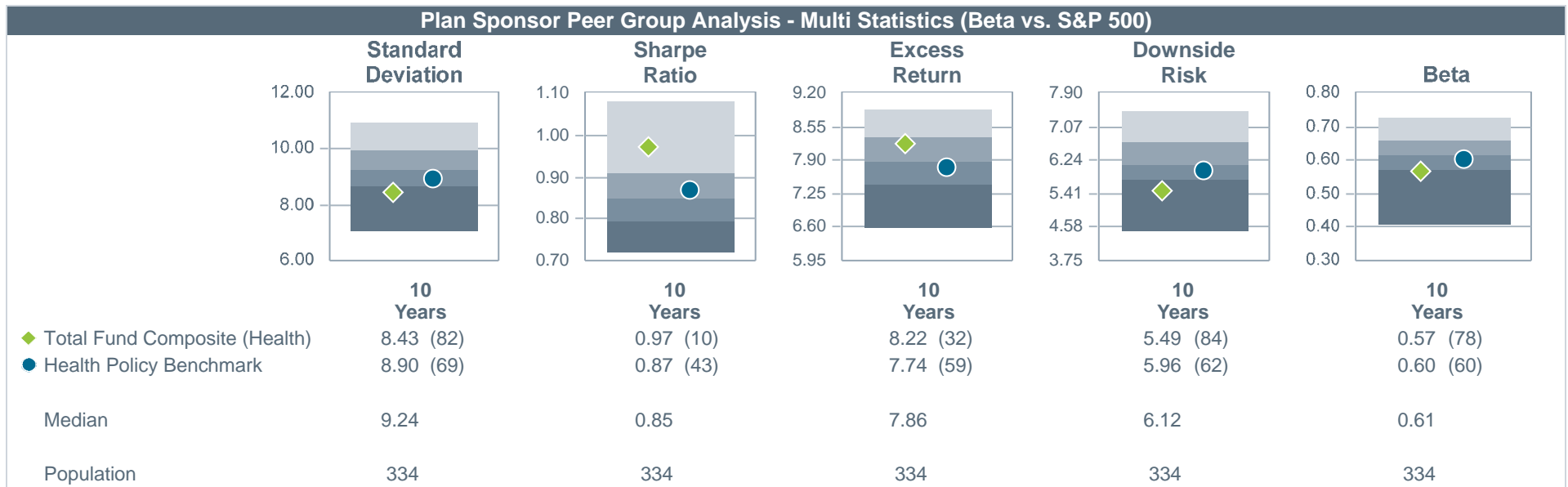
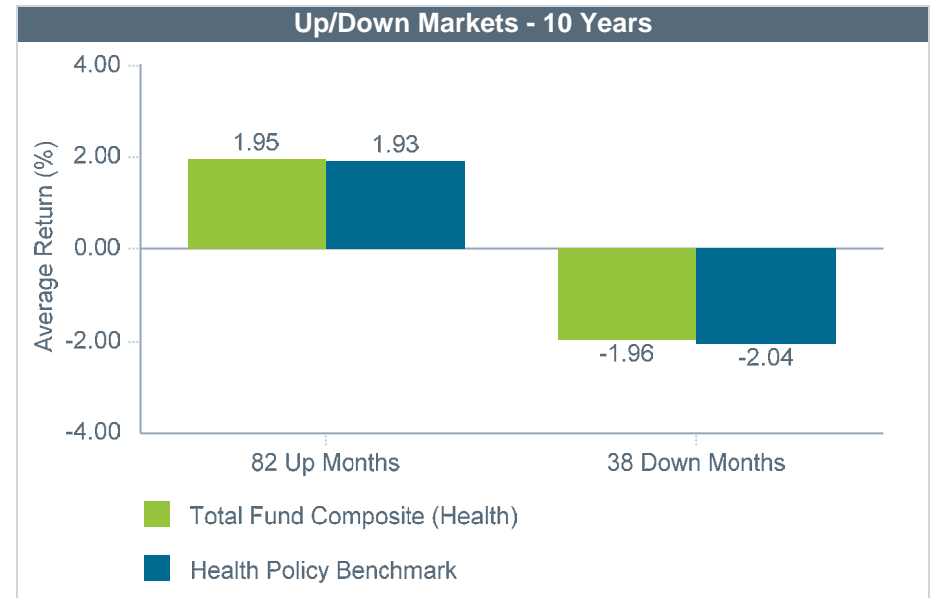
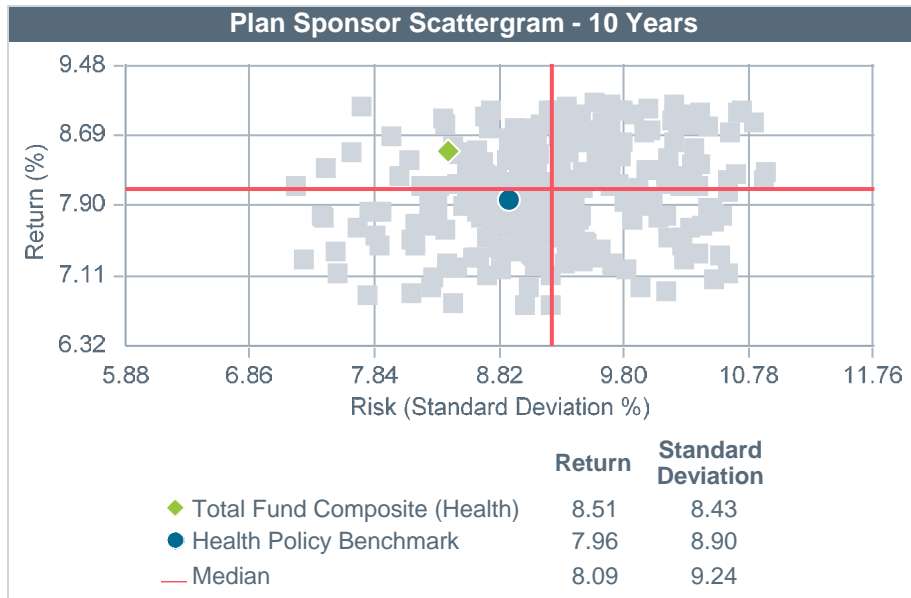
	QTD/ FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Total Fund Composite (Health)	3.38	5.03	9.12	10.67	8.47	10.08	8.51	16.75	6.93	1.46	6.74	17.76
Health Policy Benchmark	3.07	4.10	7.97	10.15	8.03	9.73	7.96	15.21	8.40	0.71	6.75	15.96
Difference	0.31	0.93	1.15	0.52	0.44	0.35	0.55	1.54	-1.47	0.75	-0.01	1.80



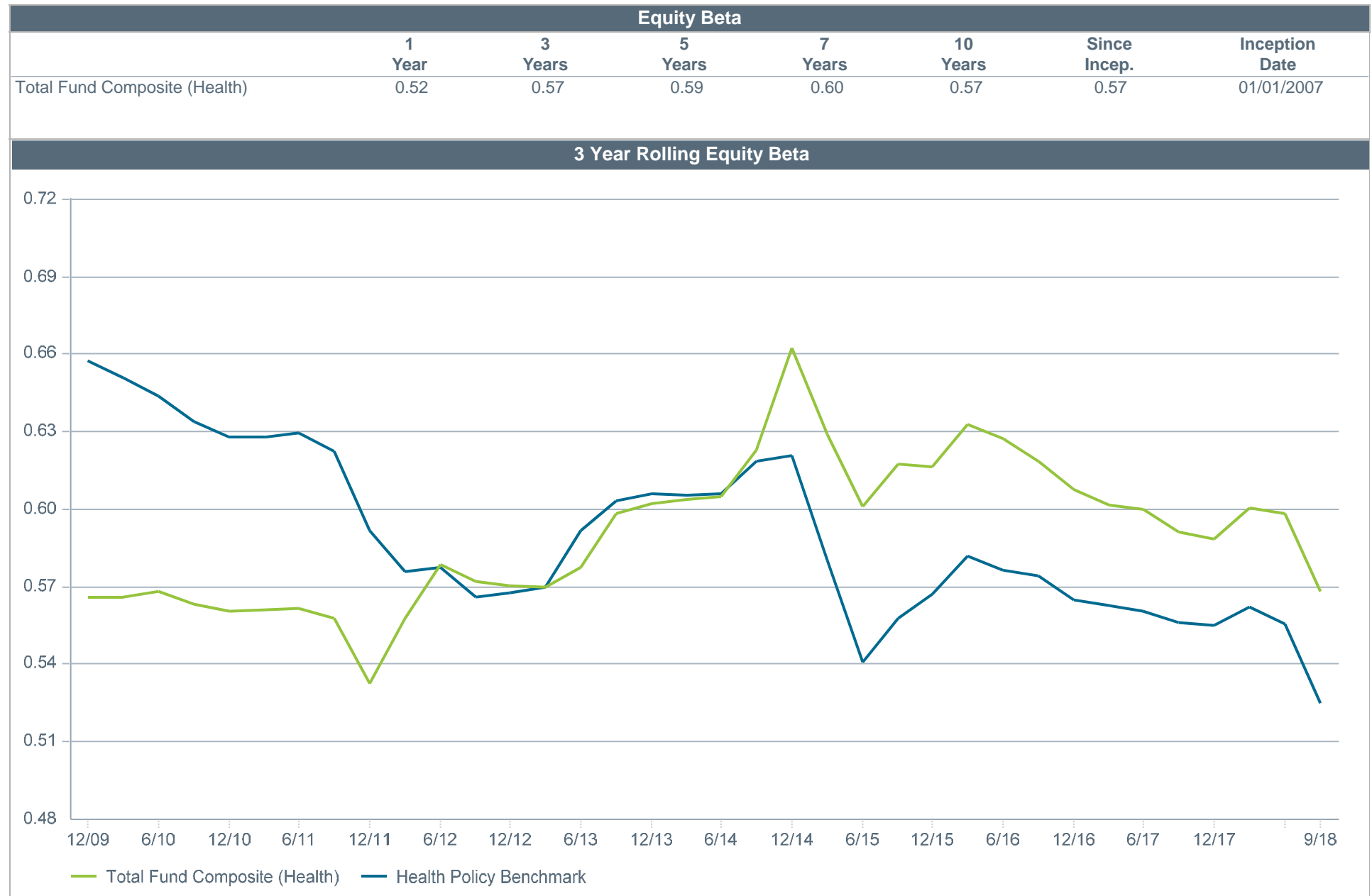
Performance shown is gross of fees. Calculation is based on quarterly periodicity. Fiscal year ends 06/30.

Water and Power Employees' Retirement Plan
Total Fund Composite (Health) vs. All Public Plans-Total Fund

As of September 30, 2018

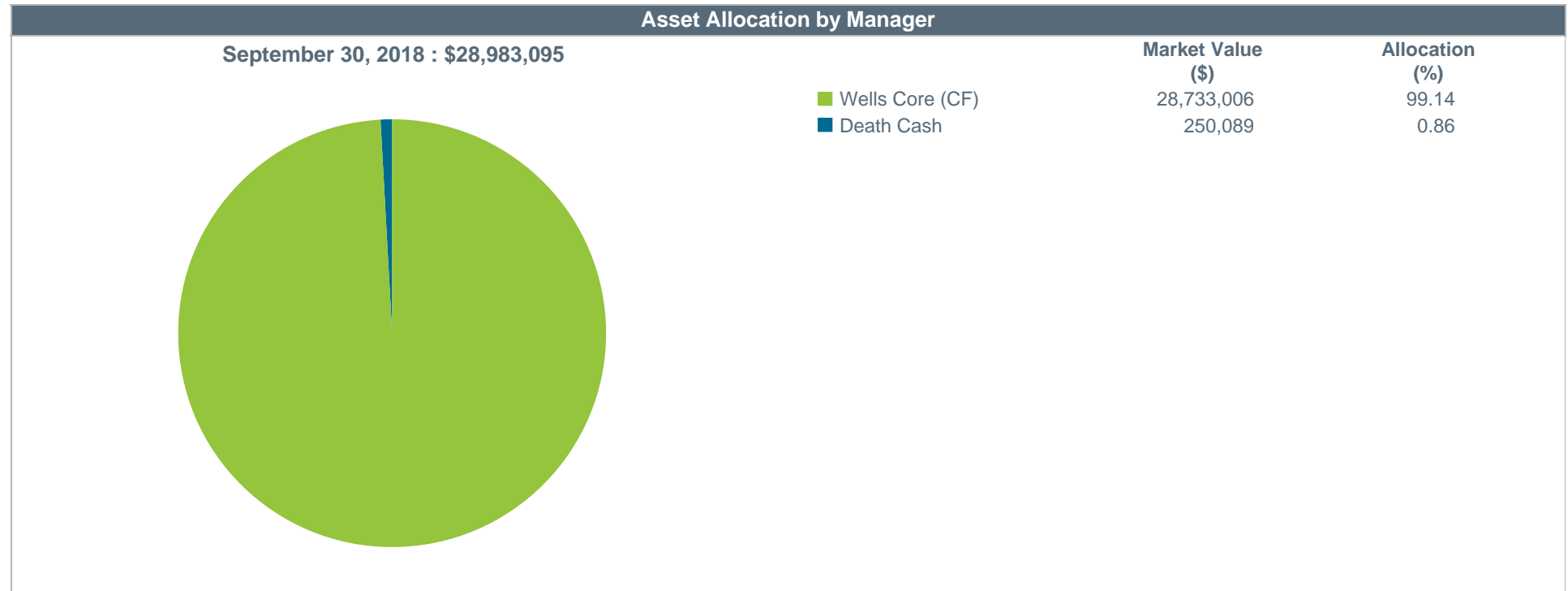


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



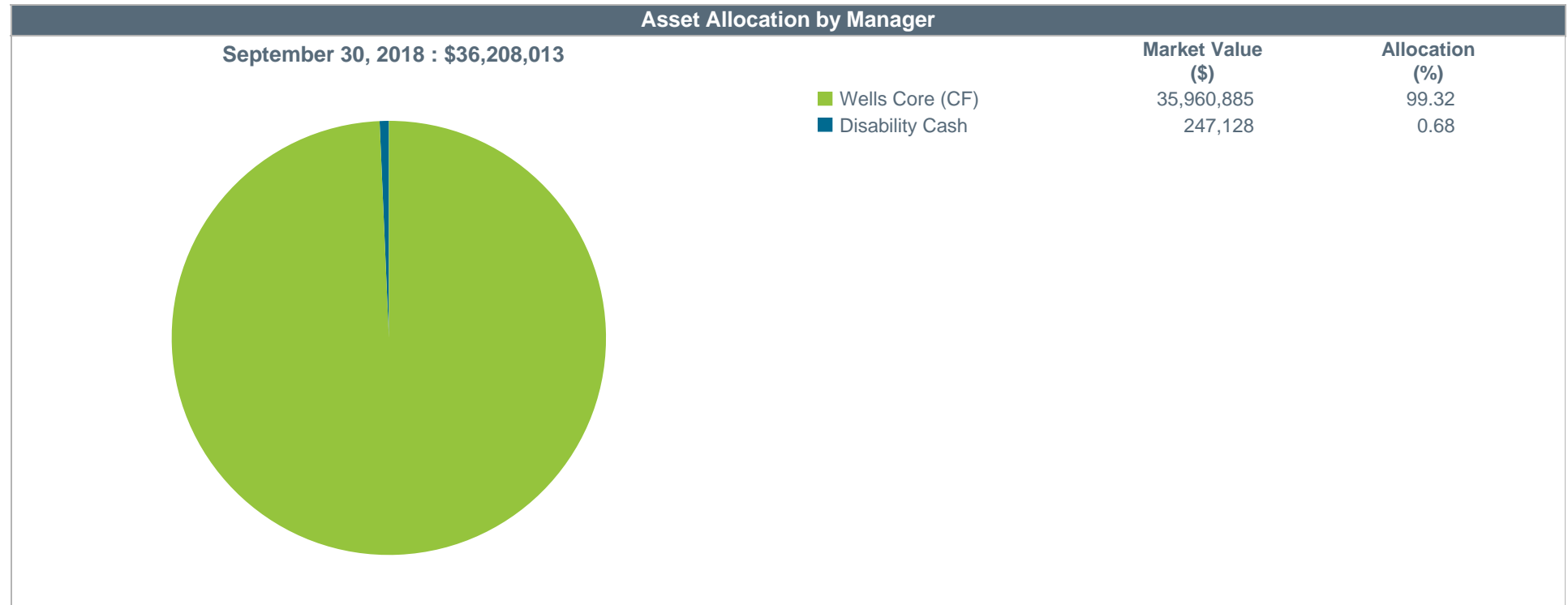
Performance shown is gross of fees. The objective of the Total Fund Beta is to measure the aggregate level of non-diversifiable or systematic equity risk exposure of the Water and Power Employees' Retirement Plan - Health. The Total Fund Beta is calculated using the S&P 500 Index (Cap Wtd) as the benchmark 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	2017	2016	2015	Since Incep.	Inception Date
Total Fund Composite (Death)	0.09	-1.46	-1.12	1.44	2.40	2.63	4.49	3.41	2.92	1.08	5.16	12/01/1995
Death Policy Benchmark	0.04	-1.48	-1.10	1.29	2.09	1.96	3.63	3.43	2.55	0.53	4.82	
Difference	0.05	0.02	-0.02	0.15	0.31	0.67	0.86	-0.02	0.37	0.55	0.34	
Wells Core (CF)	0.08	-1.48	-1.14	1.46	2.43	2.68	4.96	3.46	2.98	1.06	4.76	07/01/2004
Bloomberg US Agg Bond Index	0.02	-1.60	-1.22	1.31	2.16	2.02	3.77	3.54	2.65	0.55	3.95	
Difference	0.06	0.12	0.08	0.15	0.27	0.66	1.19	-0.08	0.33	0.51	0.81	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-1.29	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	4.40	
Rank	72	74	84	76	62	48	28	88	58	26	23	
Wells Core (CF) - Net	0.08	-1.48	-1.14	1.46	2.44	2.68	4.96	3.46	2.98	1.06	4.51	07/01/2004
Bloomberg US Agg Bond Index	0.02	-1.60	-1.22	1.31	2.16	2.02	3.77	3.54	2.65	0.55	3.95	
Difference	0.06	0.12	0.08	0.15	0.28	0.66	1.19	-0.08	0.33	0.51	0.56	

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	2017	2016	2015	Since Incep.	Inception Date
Total Fund Composite (Disability)	0.10	-1.46	-1.12	1.46	2.43	2.67	4.67	3.44	2.97	1.10	5.49	12/01/1995
Disability Policy Benchmark	0.04	-1.45	-1.08	1.29	2.08	1.94	3.60	3.41	2.53	0.53	4.80	
Difference	0.06	-0.01	-0.04	0.17	0.35	0.73	1.07	0.03	0.44	0.57	0.69	
Wells Core (CF)	0.09	-1.48	-1.14	1.46	2.43	2.68	4.96	3.46	2.98	1.06	4.75	07/01/2004
Bloomberg US Agg Bond Index	0.02	-1.60	-1.22	1.31	2.16	2.02	3.77	3.54	2.65	0.55	3.95	
Difference	0.07	0.12	0.08	0.15	0.27	0.66	1.19	-0.08	0.33	0.51	0.80	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.18	-1.29	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	4.40	
Rank	67	74	83	76	62	48	28	88	58	26	23	
Wells Core (CF) - Net	0.09	-1.48	-1.14	1.46	2.43	2.68	4.96	3.46	2.98	1.06	4.46	07/01/2004
Bloomberg US Agg Bond Index	0.02	-1.60	-1.22	1.31	2.16	2.02	3.77	3.54	2.65	0.55	3.95	
Difference	0.07	0.12	0.08	0.15	0.27	0.66	1.19	-0.08	0.33	0.51	0.51	

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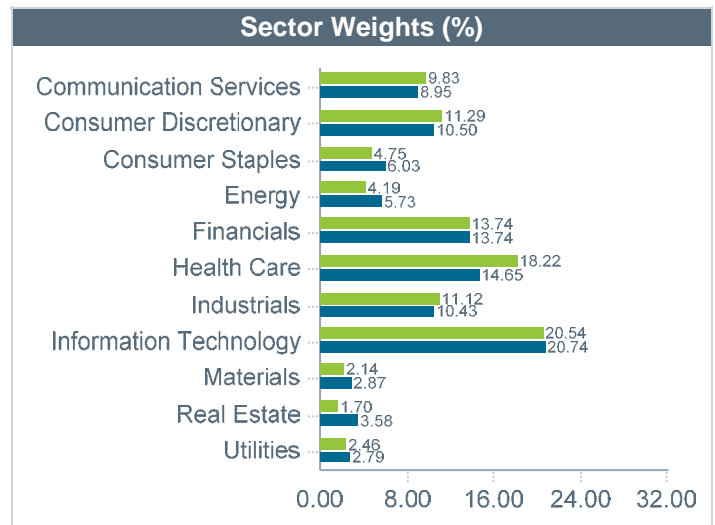
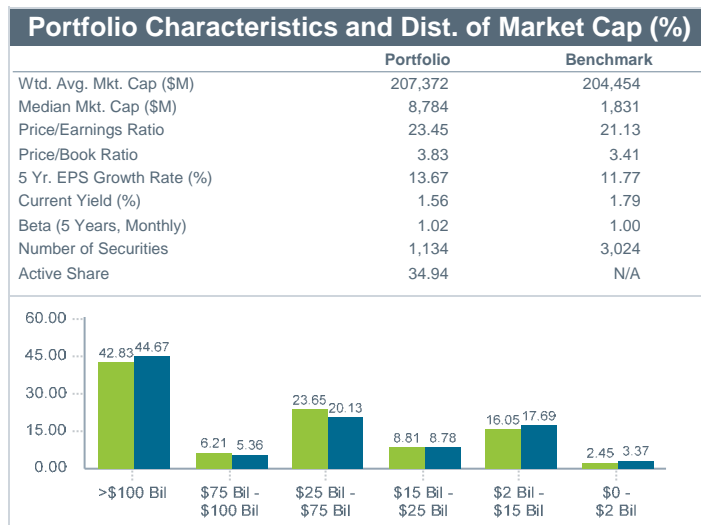
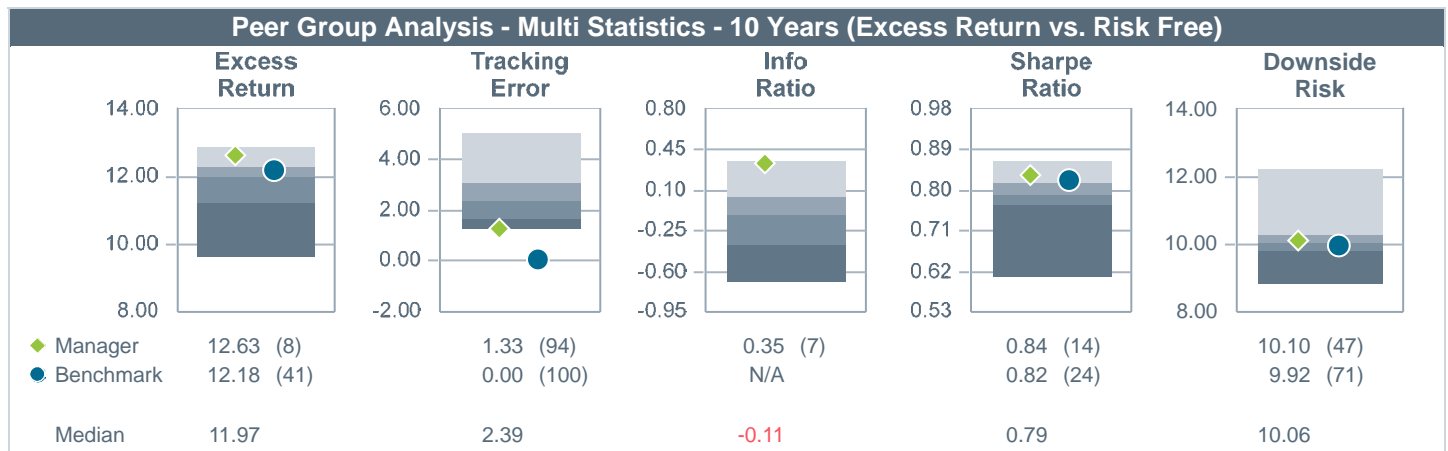
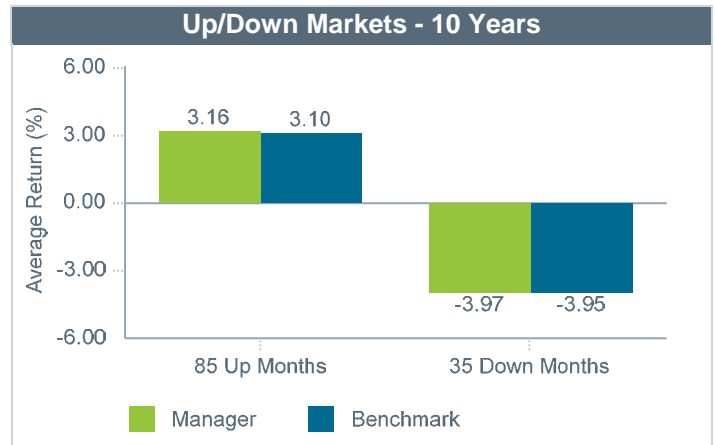
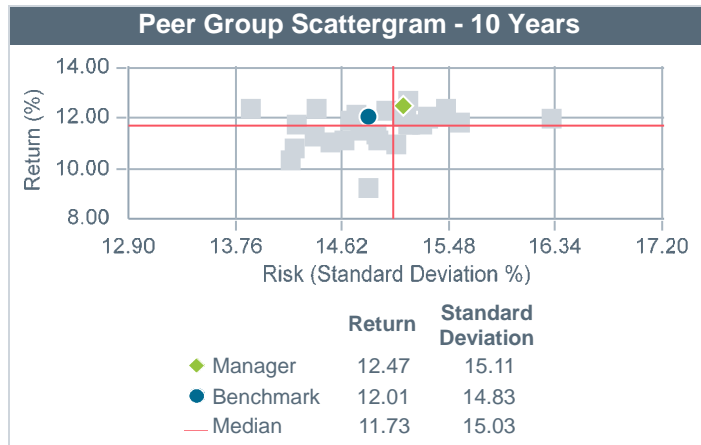
Composite and Manager Reviews



Manager: Domestic Equity Composite - Retirement
As of September 30, 2018
Benchmark: Russell 3000 (Blended) (R)

Peer Group: All Public Plans-US Equity Segment

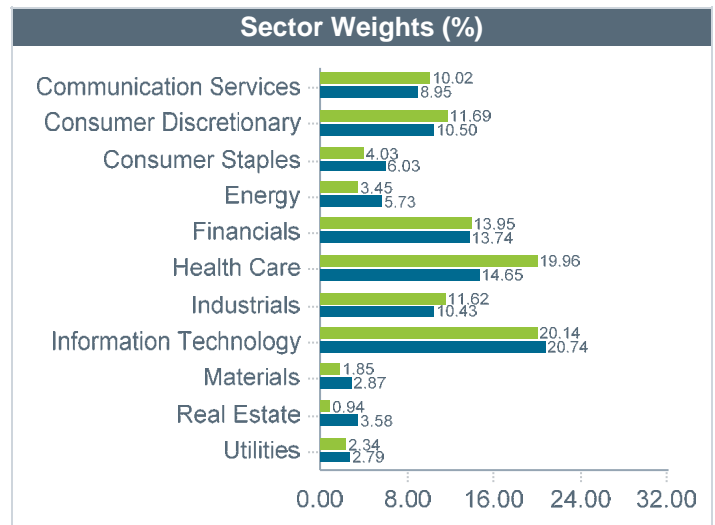
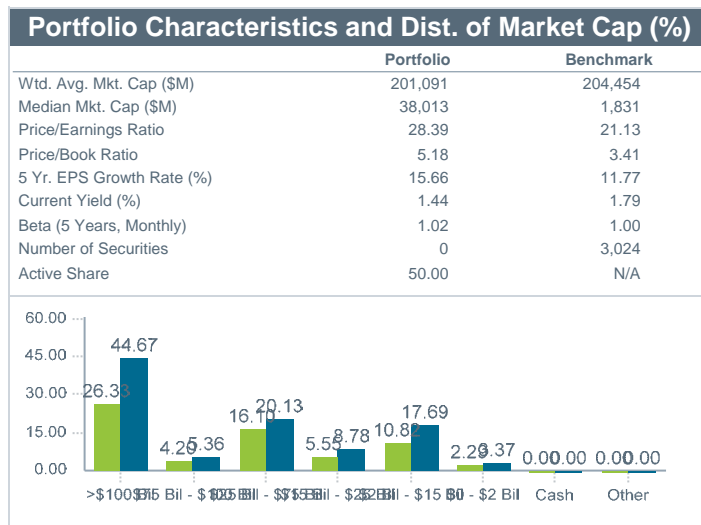
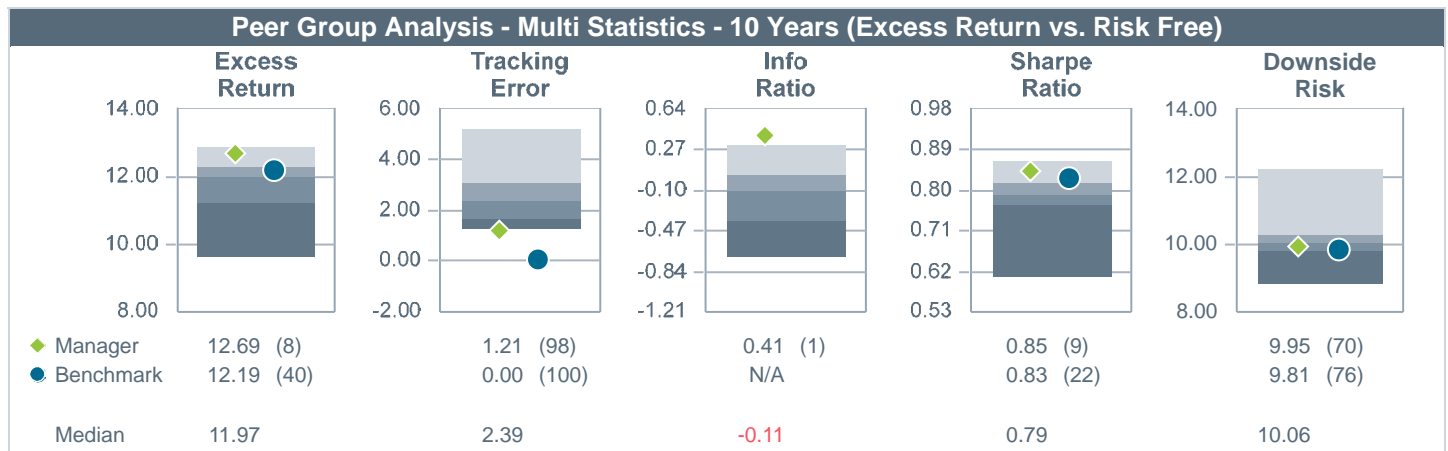
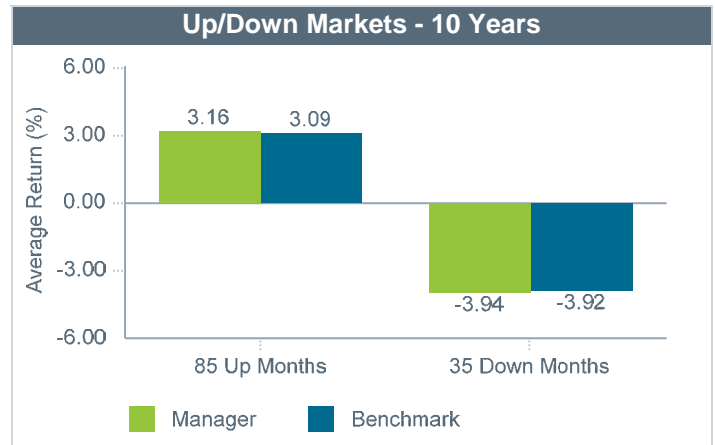
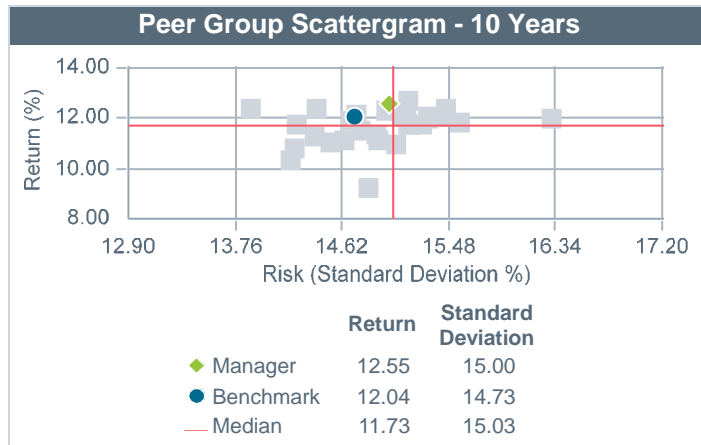
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	7.41	19.61	18.36	14.42	17.84	12.47	23.44	11.68	1.96	11.82	36.97
Benchmark	7.12	17.58	17.07	13.46	16.86	12.01	21.13	12.74	0.48	12.56	33.55
Difference	0.29	2.03	1.29	0.96	0.98	0.46	2.31	-1.06	1.48	-0.74	3.42
Peer Group Median	6.42	16.83	16.71	12.90	16.54	11.73	20.32	12.98	0.21	11.42	33.76
Rank	13	3	2	1	5	8	8	78	8	35	5
Population	73	68	65	60	50	34	93	95	86	48	46



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

Manager: Domestic Equity Composite - Health
As of September 30, 2018
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	2017	2016	2015	2014	2013
Manager	7.43	19.56	18.31	14.42	17.83	12.55	23.37	11.67	1.99	11.88	36.87
Benchmark	7.12	17.58	17.07	13.46	16.86	12.04	21.13	12.74	0.48	12.56	33.55
Difference	0.31	1.98	1.24	0.96	0.97	0.51	2.24	-1.07	1.51	-0.68	3.32
Peer Group Median	6.42	16.83	16.71	12.90	16.54	11.73	20.32	12.98	0.21	11.42	33.76
Rank	13	3	2	1	6	7	8	78	8	34	6
Population	73	68	65	60	50	34	93	95	86	48	46



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

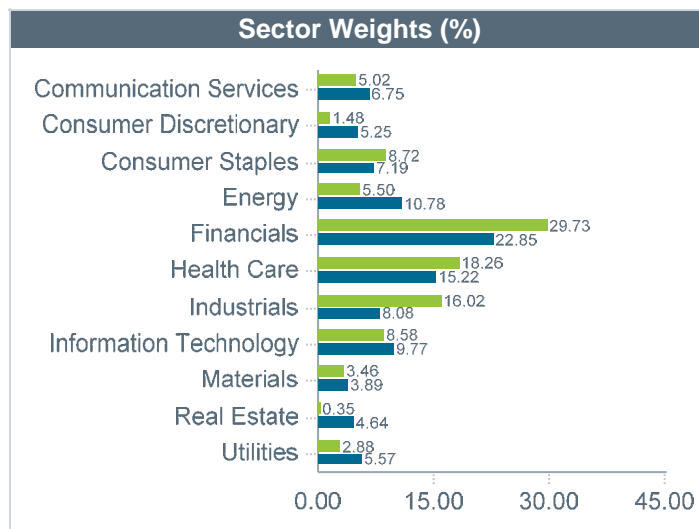
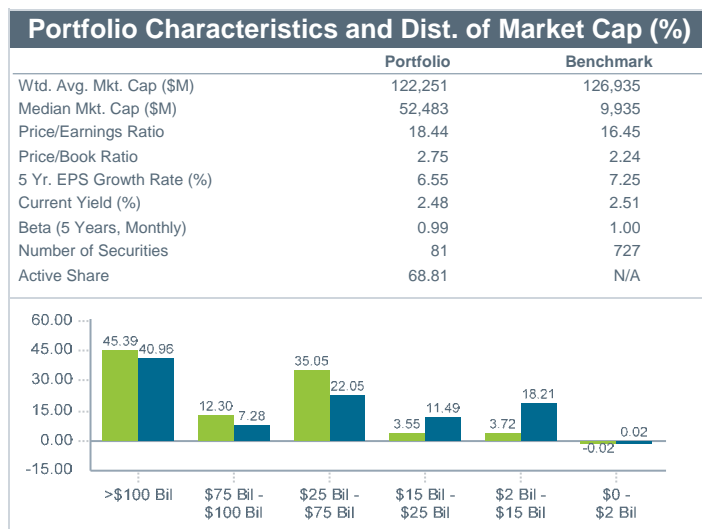
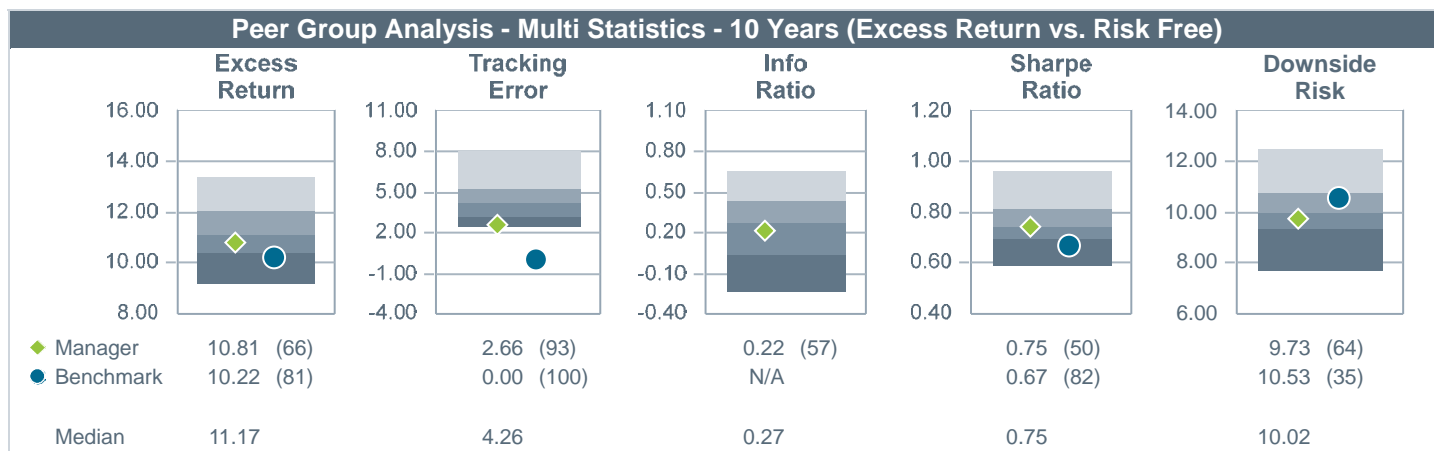
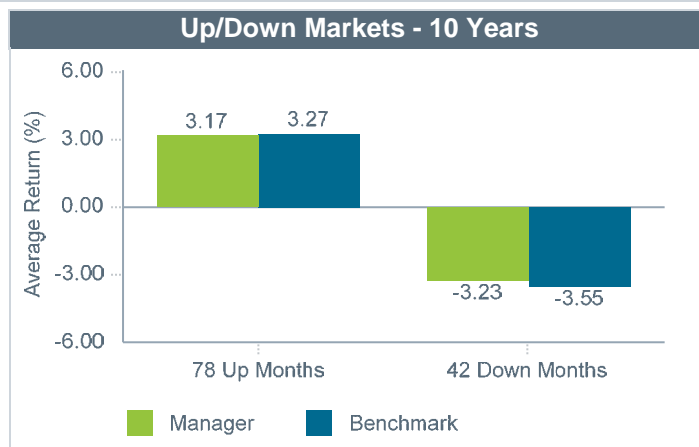
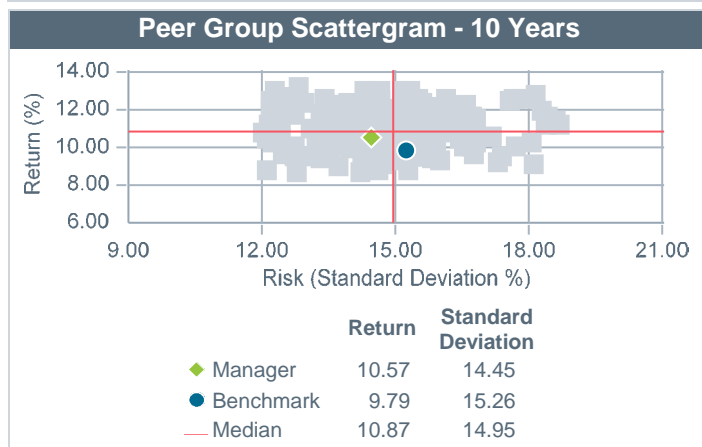
Manager: MFS Large Cap Value (SA)

As of September 30, 2018

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	2017	2016	2015	2014	2013
Manager	5.92	7.36	13.87	11.51	15.72	10.57	17.82	15.80	-0.06	11.86	36.41
Benchmark	5.70	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	13.45	32.53
Difference	0.22	-2.09	0.32	0.79	0.70	0.78	4.16	-1.54	3.77	-1.59	3.88
Peer Group Median	5.65	11.82	14.61	11.55	15.59	10.87	17.22	14.35	-2.22	12.24	34.26
Rank	43	92	65	53	47	62	44	38	29	56	34
Population	317	317	312	303	287	263	340	368	386	410	409



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

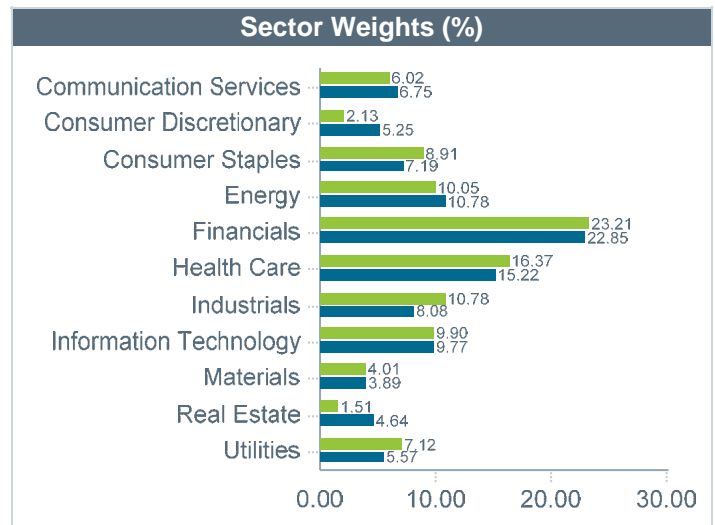
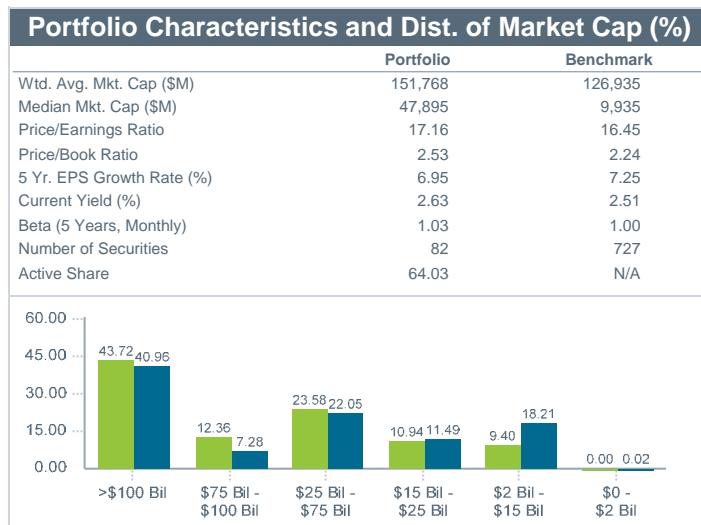
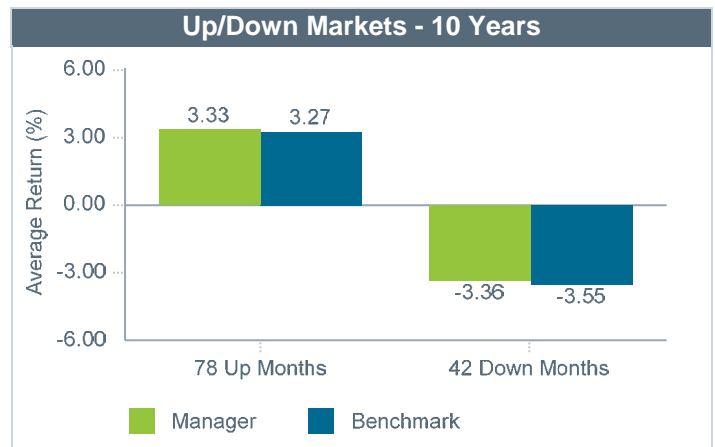
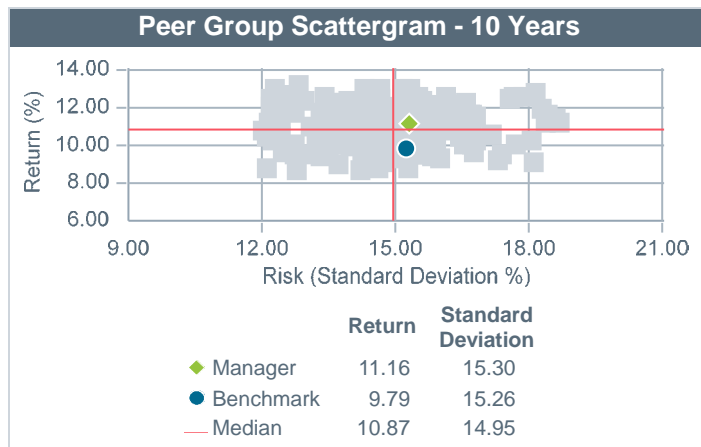
Manager: T. Rowe Price Large Cap Value (SA)

As of September 30, 2018

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	2017	2016	2015	2014	2013
Manager	4.91	10.11	15.61	11.86	16.23	11.16	16.74	17.14	-1.90	13.43	35.32
Benchmark	5.70	9.45	13.55	10.72	15.02	9.79	13.66	17.34	-3.83	13.45	32.53
Difference	-0.79	0.66	2.06	1.14	1.21	1.37	3.08	-0.20	1.93	-0.02	2.79
Peer Group Median	5.65	11.82	14.61	11.55	15.59	10.87	17.22	14.35	-2.22	12.24	34.26
Rank	68	69	29	40	33	43	59	26	47	36	42
Population	317	317	312	303	287	263	340	368	386	410	409



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

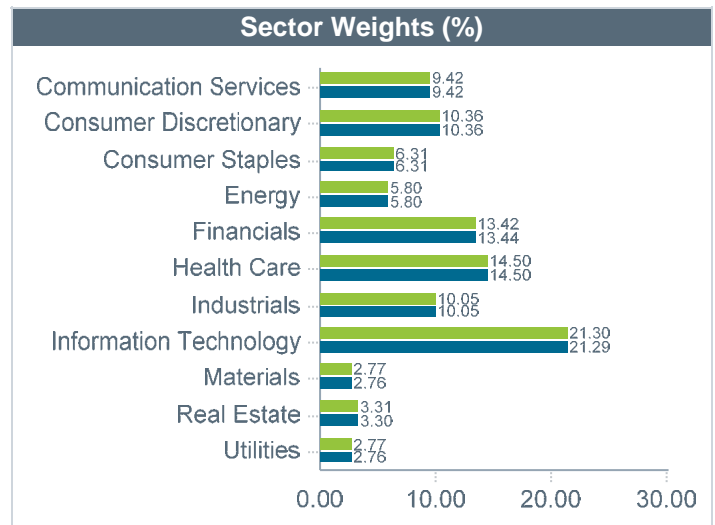
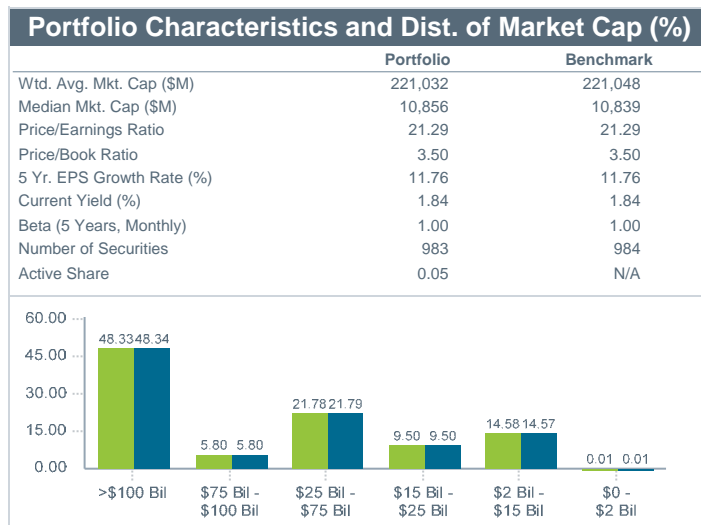
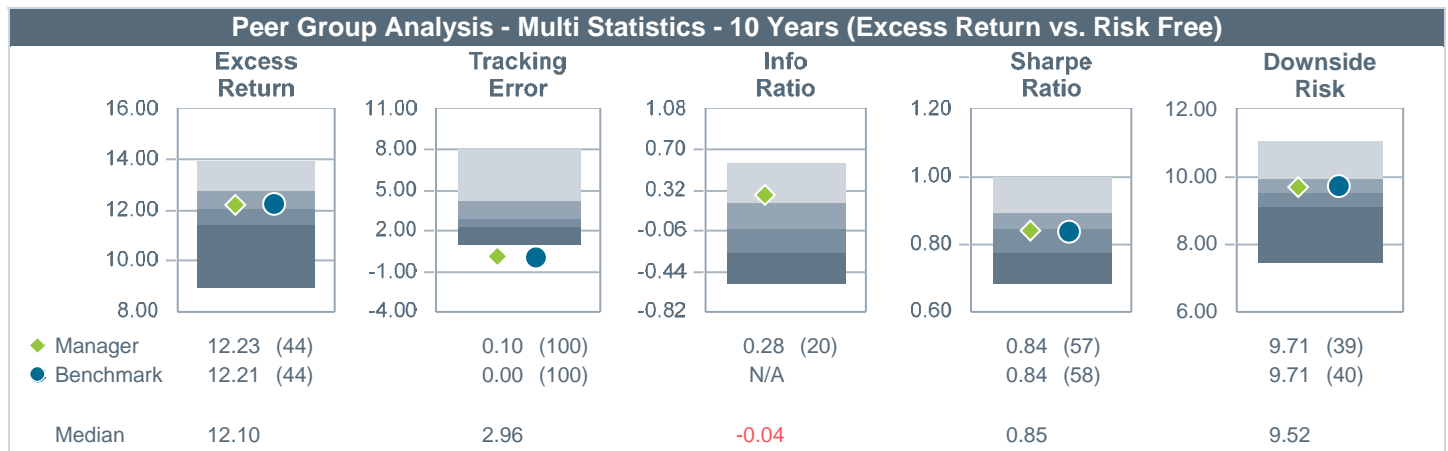
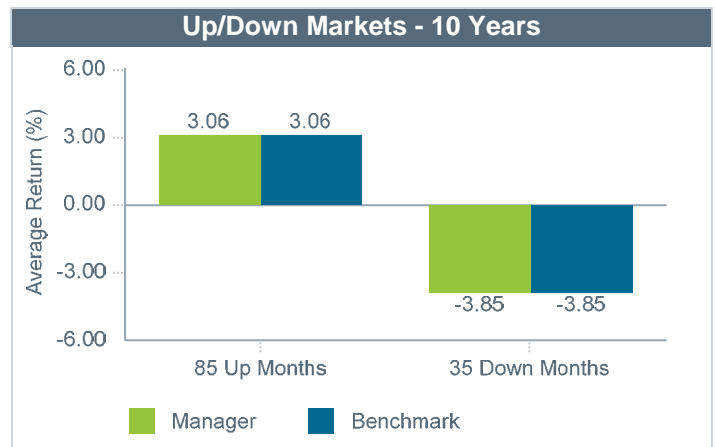
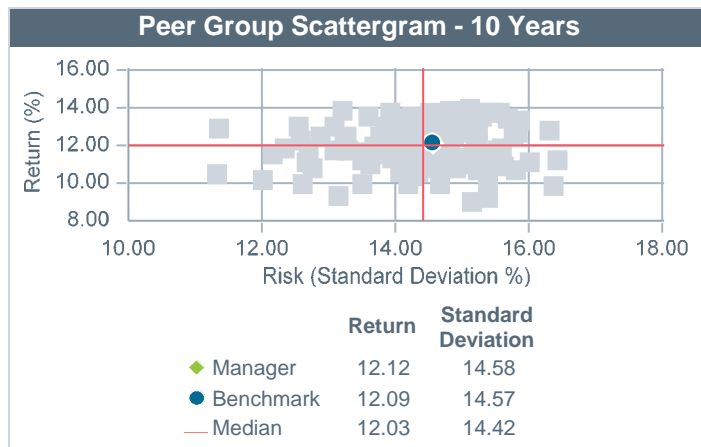
Manager: BlackRock Russell 1000 Index (CF)

As of September 30, 2018

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	2017	2016	2015	2014	2013
Manager	7.42	17.79	17.10	13.70	16.94	12.12	21.70	12.09	0.94	13.27	33.16
Benchmark	7.42	17.76	17.07	13.67	16.90	12.09	21.69	12.05	0.92	13.24	33.11
Difference	0.00	0.03	0.03	0.03	0.04	0.03	0.01	0.04	0.02	0.03	0.05
Peer Group Median	7.13	17.25	16.23	13.55	16.86	12.03	21.82	10.52	1.41	13.42	32.98
Rank	42	42	34	48	46	45	52	31	57	52	49
Population	257	257	251	242	227	204	281	305	323	343	361

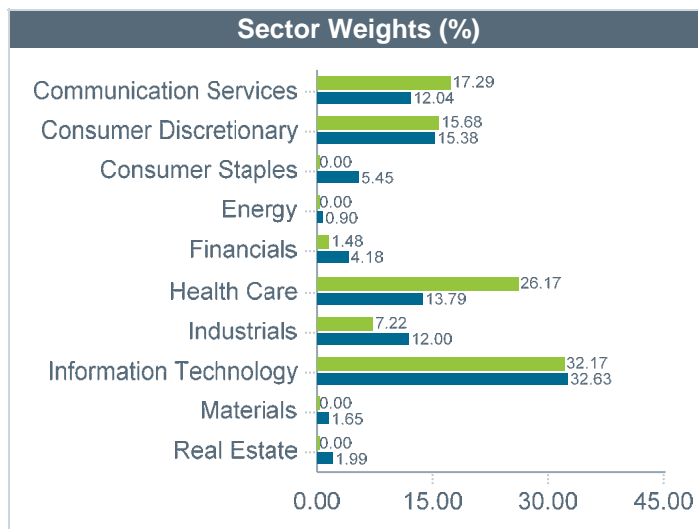
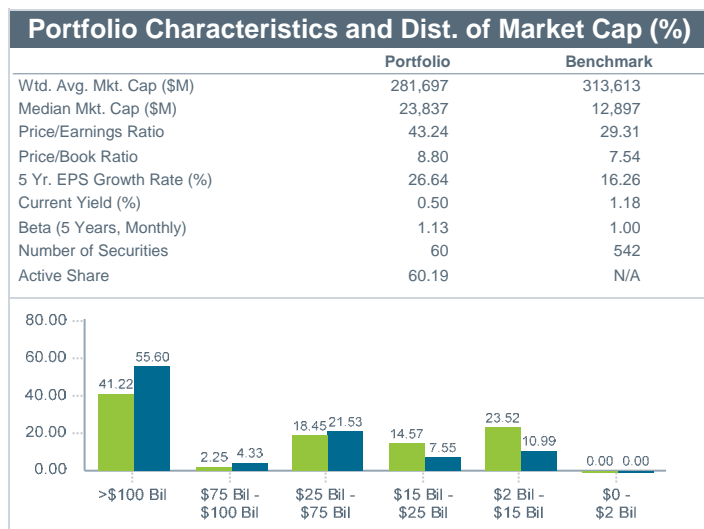
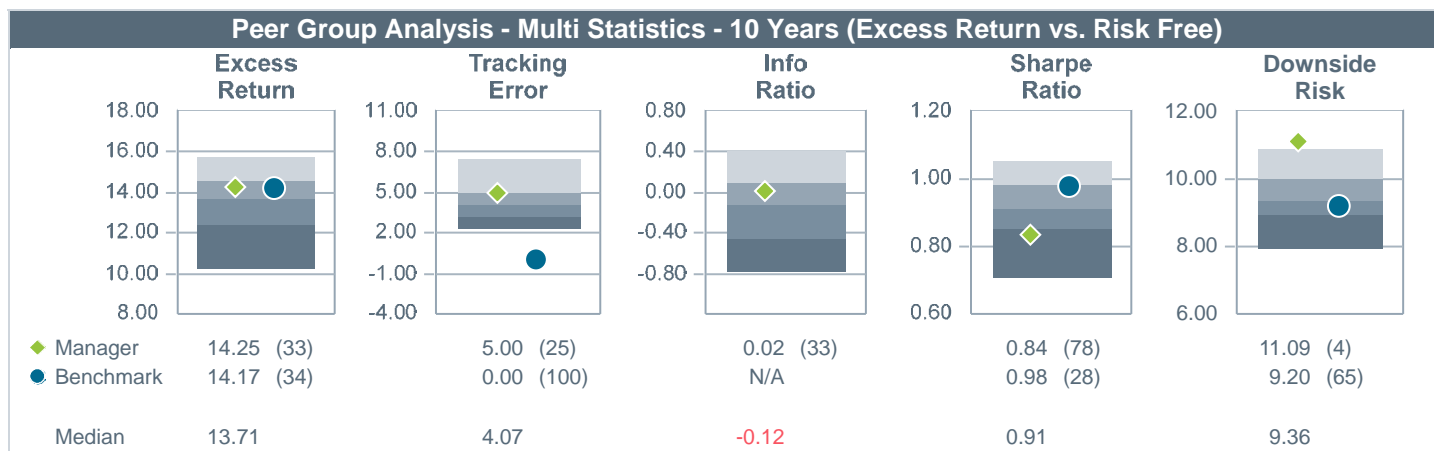
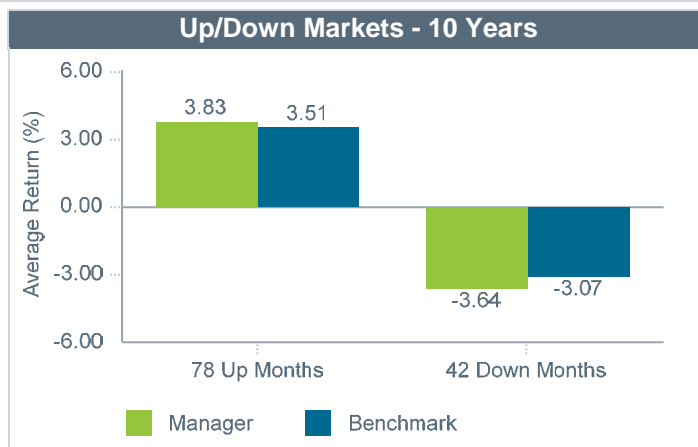
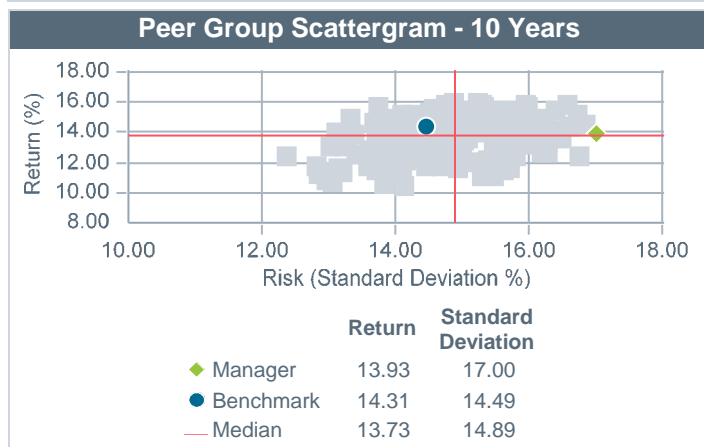


Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Manager: Fred Alger Large Cap Growth (SA)
Benchmark: Russell 1000 Grth Index
Peer Group: IM U.S. Large Cap Growth Equity (SA+CF)

As of September 30, 2018

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	12.21	36.32	21.10	16.52	18.52	13.93	29.32	0.38	1.73	11.75	37.29
Benchmark	9.17	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	13.05	33.48
Difference	3.04	10.02	0.55	-0.06	-0.17	-0.38	-0.89	-6.70	-3.94	-1.30	3.81
Peer Group Median	8.17	24.42	18.85	15.59	18.13	13.73	28.11	4.65	5.02	11.91	34.52
Rank	1	3	16	32	43	43	42	85	77	54	27
Population	273	270	259	251	238	223	283	308	336	347	353



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

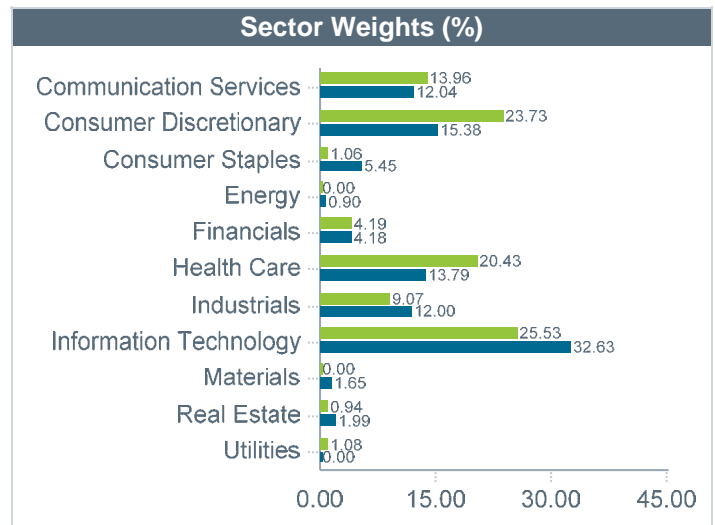
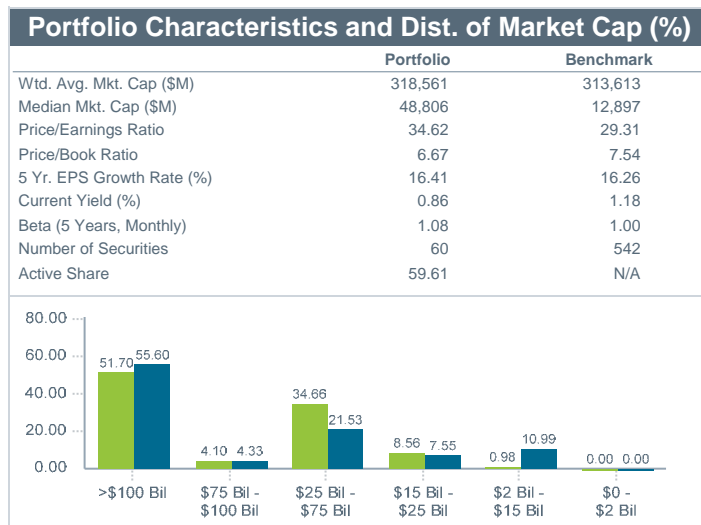
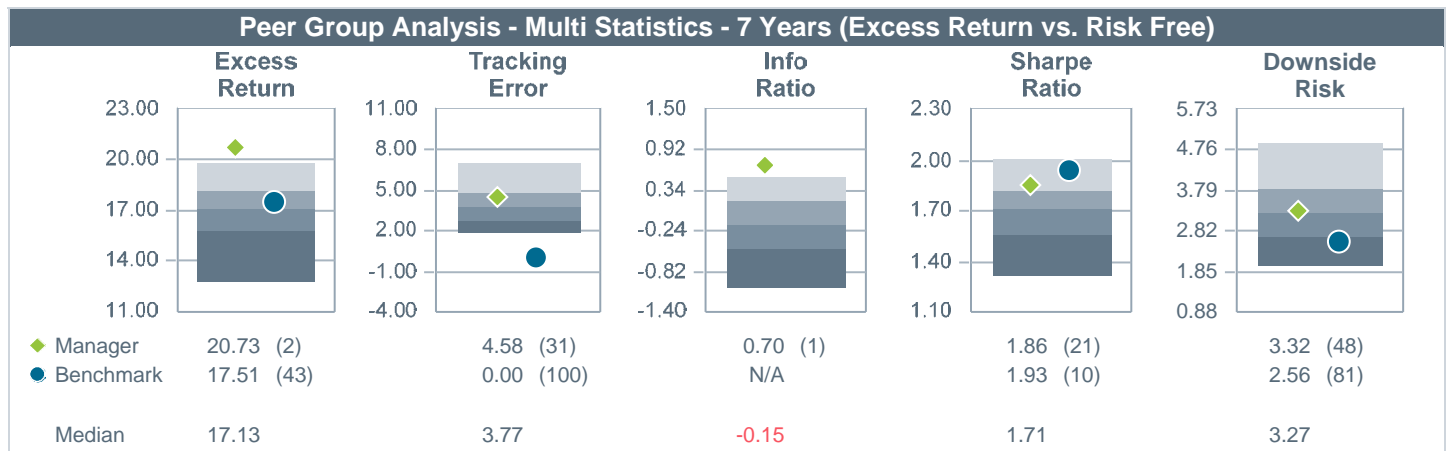
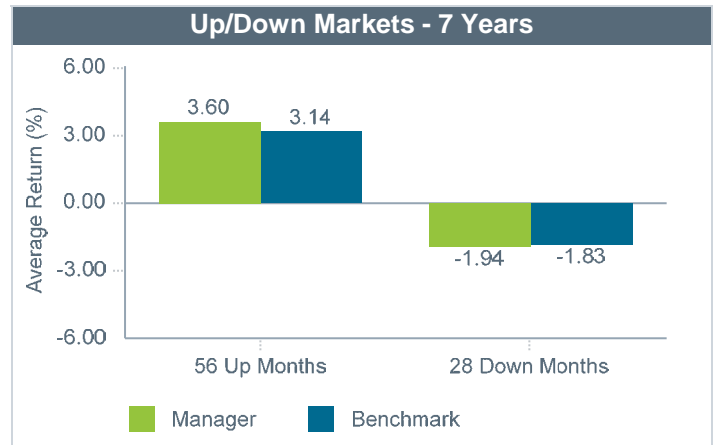
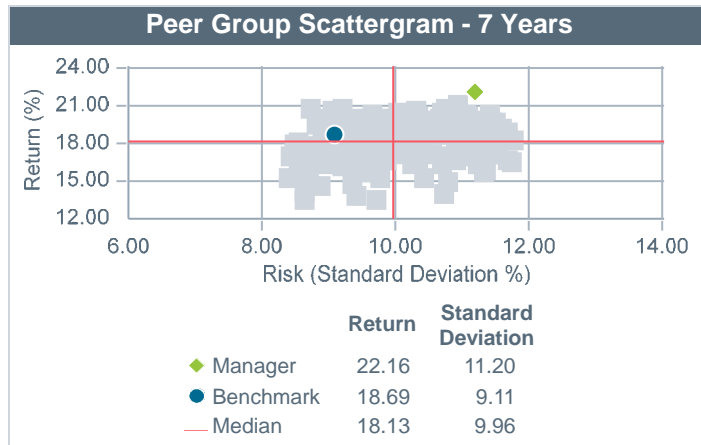
Manager: T. Rowe Price Large Cap Growth (SA)

As of September 30, 2018

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	2017	2016	2015	2014	2013
Manager	7.47	30.13	24.39	19.30	22.16	N/A	36.61	5.78	12.48	9.31	44.58
Benchmark	9.17	26.30	20.55	16.58	18.69	14.31	30.21	7.08	5.67	13.05	33.48
Difference	-1.70	3.83	3.84	2.72	3.47	N/A	6.40	-1.30	6.81	-3.74	11.10
Peer Group Median	8.17	24.42	18.85	15.59	18.13	13.73	28.11	4.65	5.02	11.91	34.52
Rank	64	15	3	5	1	N/A	5	41	7	80	6
Population	273	270	259	251	238	223	283	308	336	347	353



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

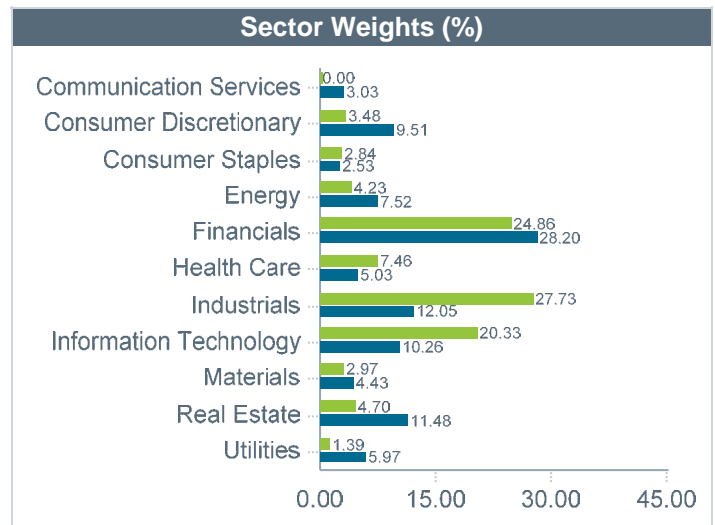
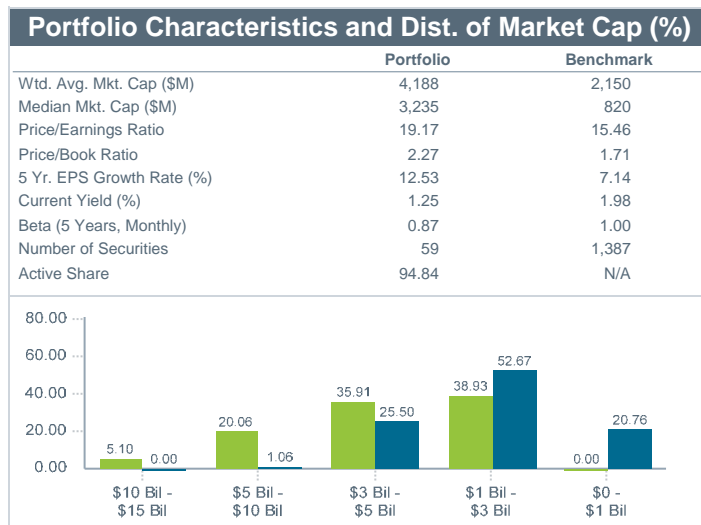
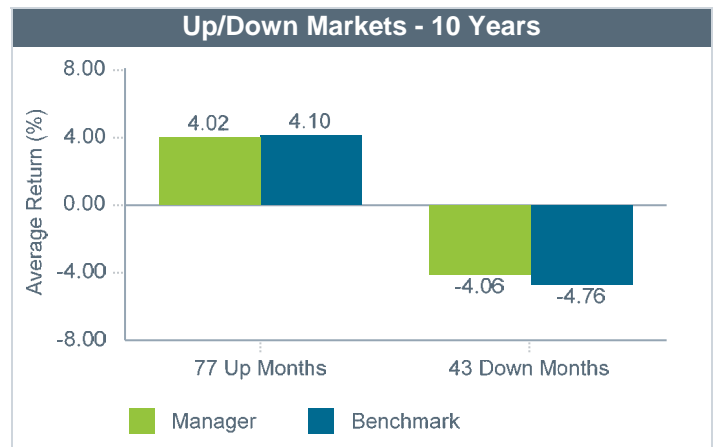
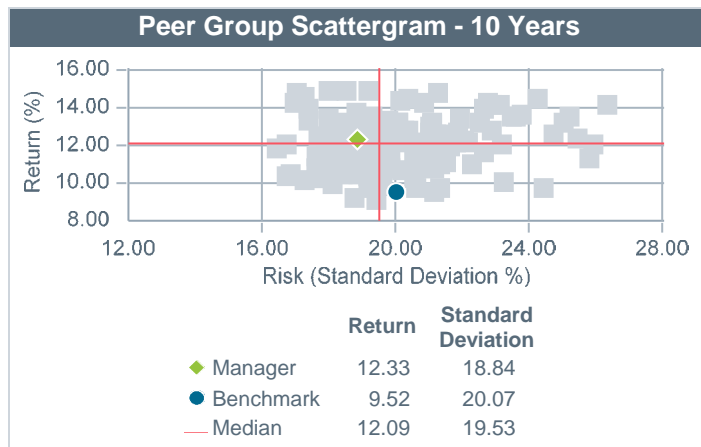
Manager: Earnest Partners Small Cap Value (SA)

As of September 30, 2018

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	2017	2016	2015	2014	2013
Manager	2.81	12.06	19.41	13.62	18.16	12.33	23.07	24.79	-2.28	11.11	35.47
Benchmark	1.60	9.33	16.12	9.91	15.26	9.52	7.84	31.74	-7.47	4.22	34.52
Difference	1.21	2.73	3.29	3.71	2.90	2.81	15.23	-6.95	5.19	6.89	0.95
Peer Group Median	1.62	9.07	15.12	10.77	16.31	12.09	11.61	26.17	-4.29	5.71	38.07
Rank	35	30	9	3	14	42	5	59	31	6	72
Population	215	215	212	202	192	176	225	233	242	253	255



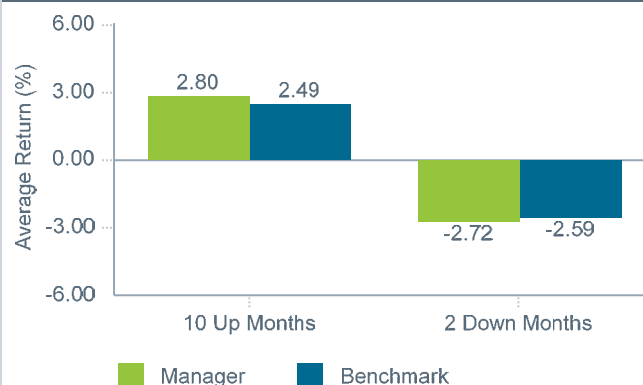
Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

Manager: Emerald Small Cap Growth (SA)

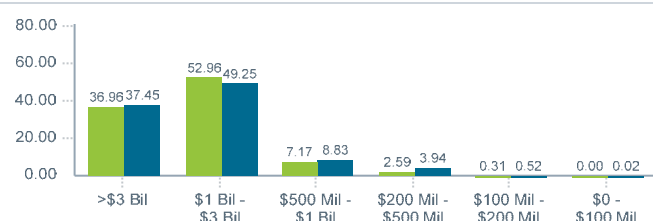
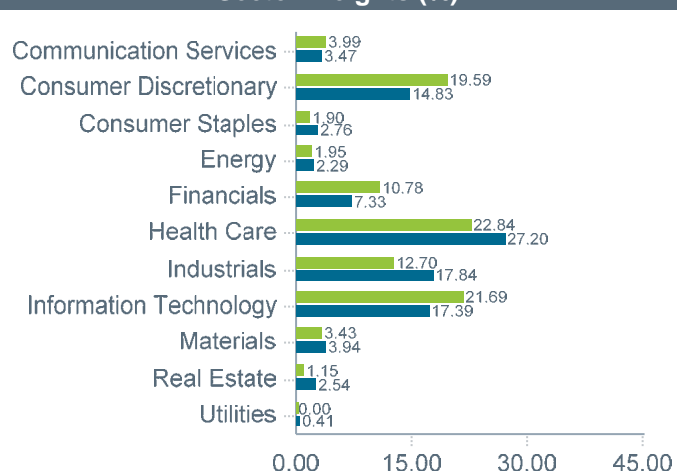
As of September 30, 2018

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	2017	2016	2015	2014	2013
Manager	7.13	24.18	N/A	N/A	N/A	N/A	29.53	10.02	N/A	N/A	N/A
Benchmark	5.52	21.06	17.98	12.14	17.52	12.65	22.17	11.32	-1.38	5.60	43.30
Difference	1.61	3.12	N/A	N/A	N/A	N/A	7.36	-1.30	N/A	N/A	N/A
Peer Group Median	7.71	26.92	19.56	13.35	18.69	14.04	23.91	11.40	-0.74	4.13	45.47
Rank	59	61	N/A	N/A	N/A	N/A	21	58	N/A	N/A	N/A
Population	169	168	166	159	154	140	175	185	203	213	219

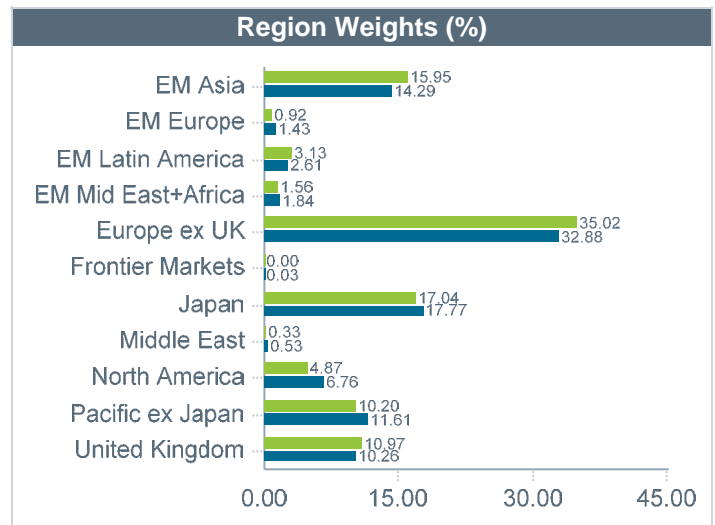
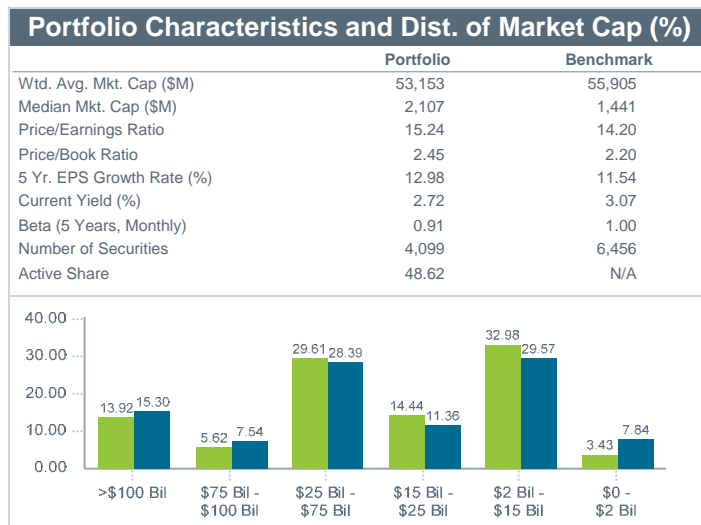
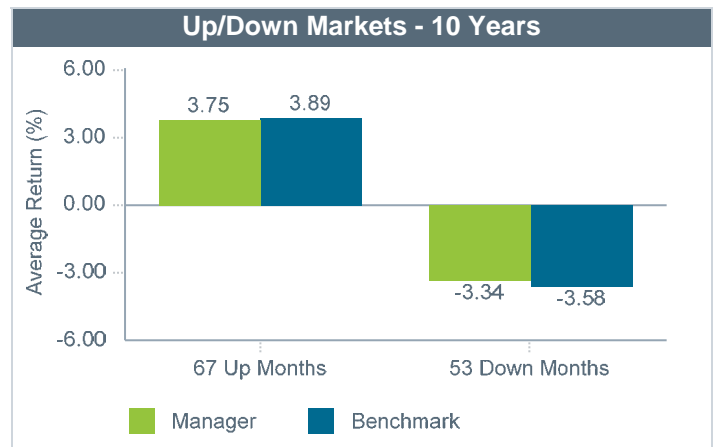
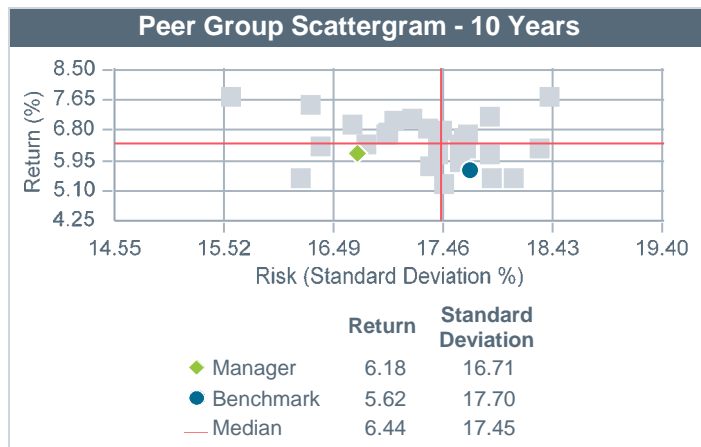
Peer Group Scattergram - 1 Year**Up/Down Markets - 1 Year****Peer Group Analysis - Multi Statistics - 1 Year (Excess Return vs. Risk Free)****Portfolio Characteristics and Dist. of Market Cap (%)**

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	2,918	2,646
Median Mkt. Cap (\$M)	2,013	1,043
Price/Earnings Ratio	22.15	25.36
Price/Book Ratio	4.25	4.49
5 Yr. EPS Growth Rate (%)	31.28	17.52
Current Yield (%)	0.43	0.61
Beta	N/A	1.00
Number of Securities	119	1,253
Active Share	85.80	N/A

**Sector Weights (%)**

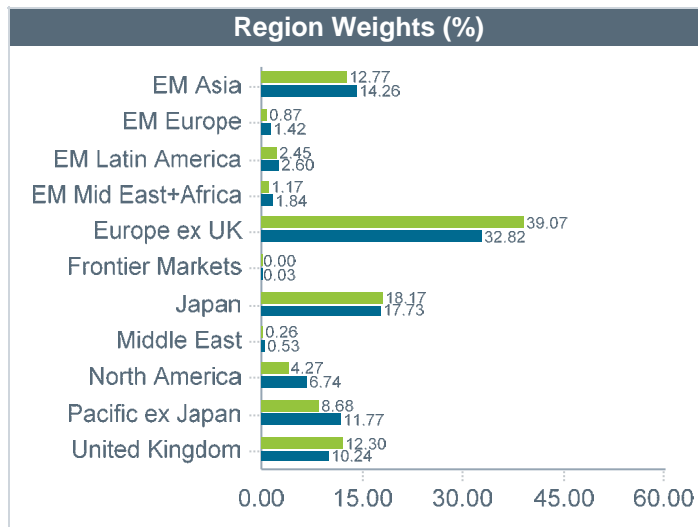
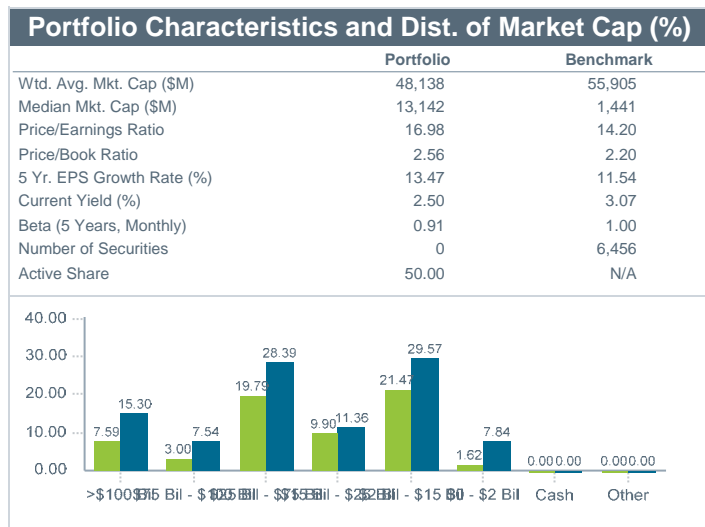
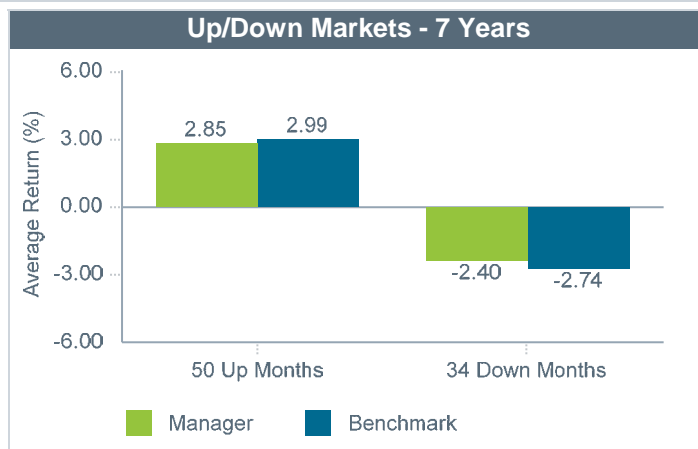
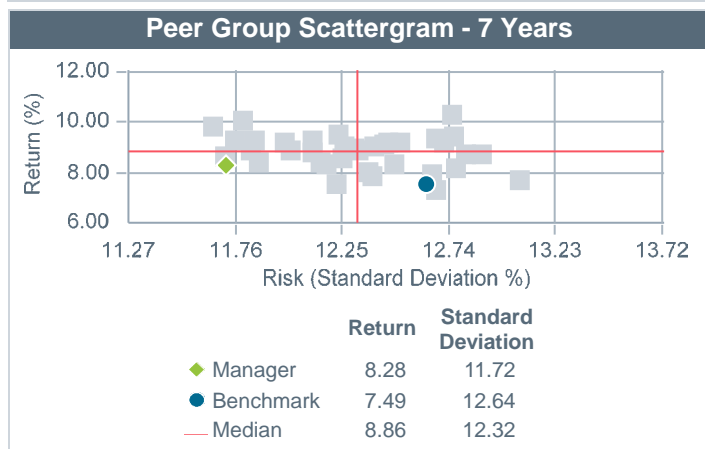
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Beta Calculation requires three years of performance history.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	0.98	3.14	10.79	5.99	8.55	6.18	29.34	3.09	-1.39	-1.15	19.16
Benchmark	0.39	1.79	10.14	4.39	7.49	5.62	27.81	4.41	-4.60	-3.89	15.82
Difference	0.59	1.35	0.65	1.60	1.06	0.56	1.53	-1.32	3.21	2.74	3.34
Peer Group Median	0.71	2.76	10.78	5.39	8.86	6.44	28.61	3.99	-2.60	-2.99	18.71
Rank	35	40	50	26	64	66	37	70	28	21	45
Population	75	73	69	60	46	34	89	91	80	46	43



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	2017	2016	2015	2014	2013
Manager	0.96	3.19	10.78	5.98	8.28	N/A	29.29	3.06	-1.40	-1.14	18.81
Benchmark	0.39	1.79	10.14	4.39	7.49	5.60	27.81	4.41	-4.60	-3.89	15.82
Difference	0.57	1.40	0.64	1.59	0.79	N/A	1.48	-1.35	3.20	2.75	2.99
Peer Group Median	0.71	2.76	10.78	5.39	8.86	6.44	28.61	3.99	-2.60	-2.99	18.71
Rank	36	37	51	26	72	N/A	39	70	28	21	50
Population	75	73	69	60	46	34	89	91	80	46	43



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

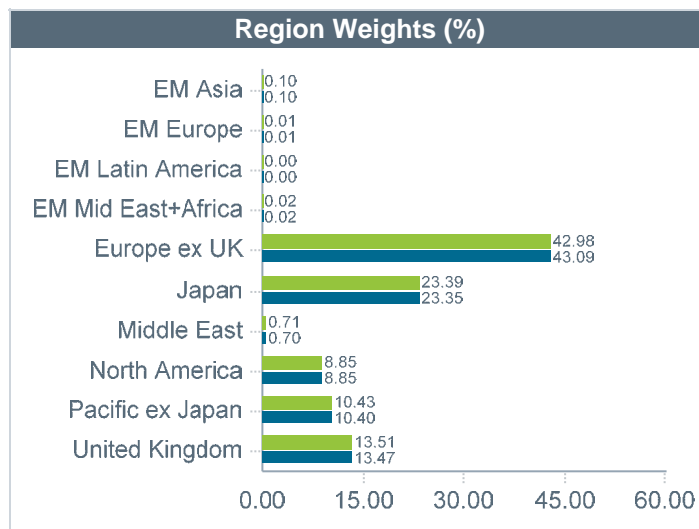
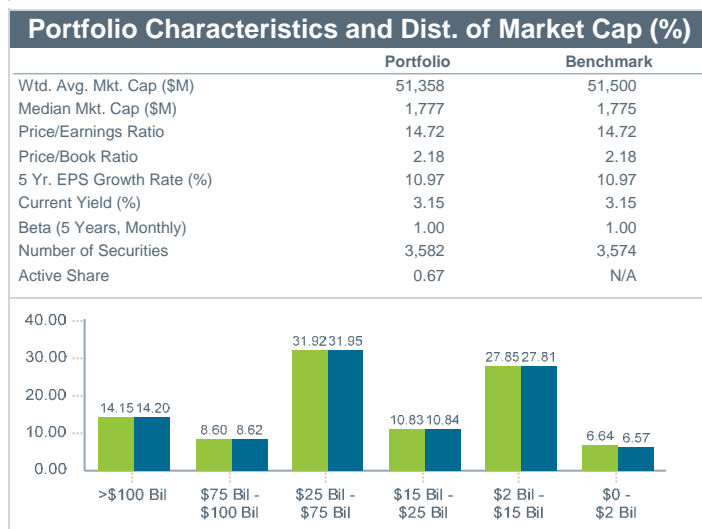
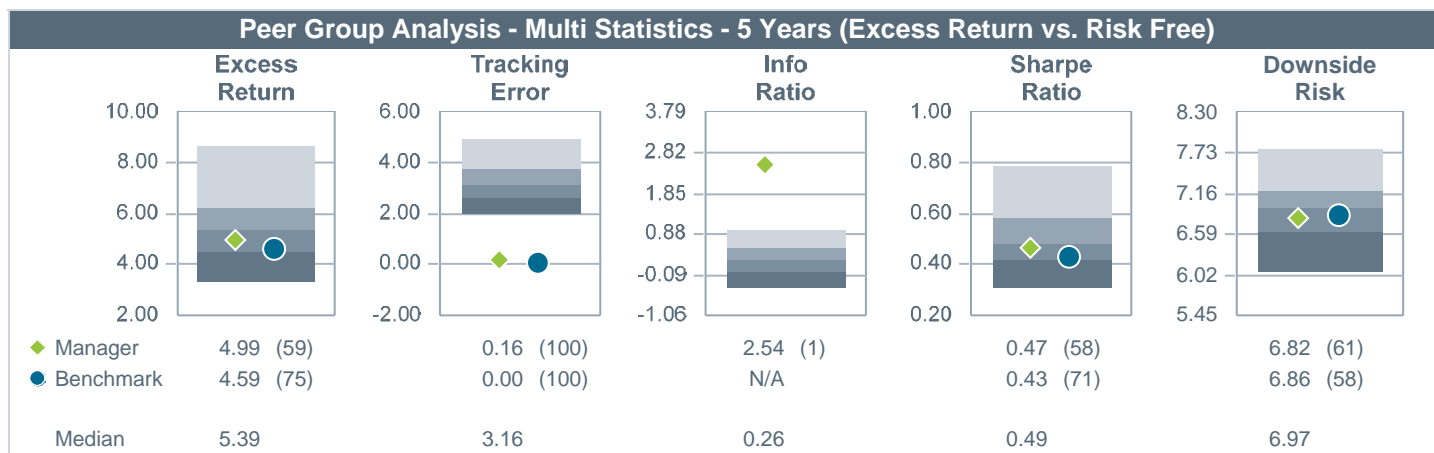
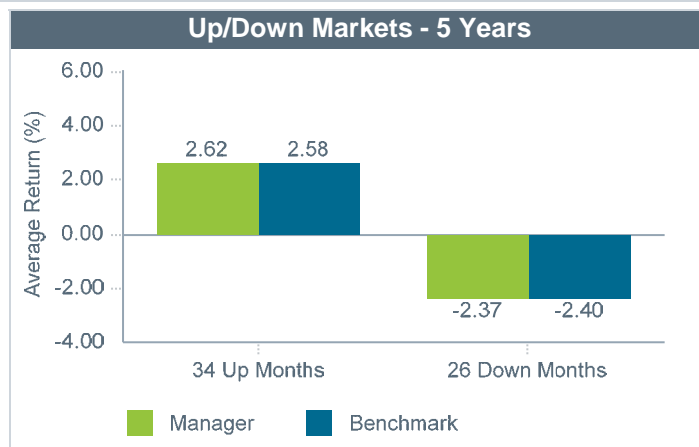
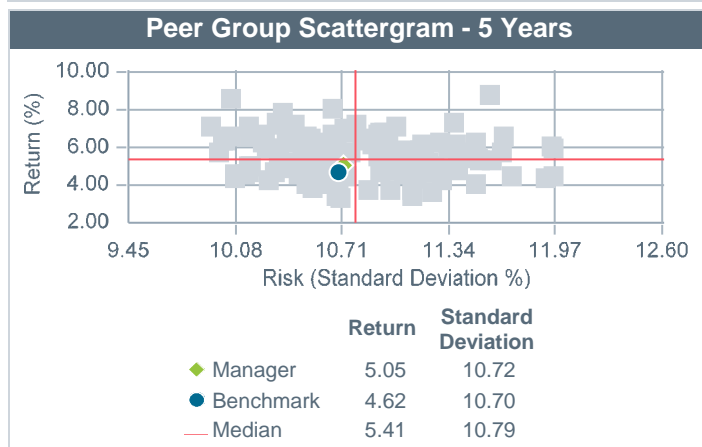
Manager: BlackRock Developed Int'l - Passive (CF)

As of September 30, 2018

Benchmark: MSCI Wrld Ex US IM Index (USD) (Net)

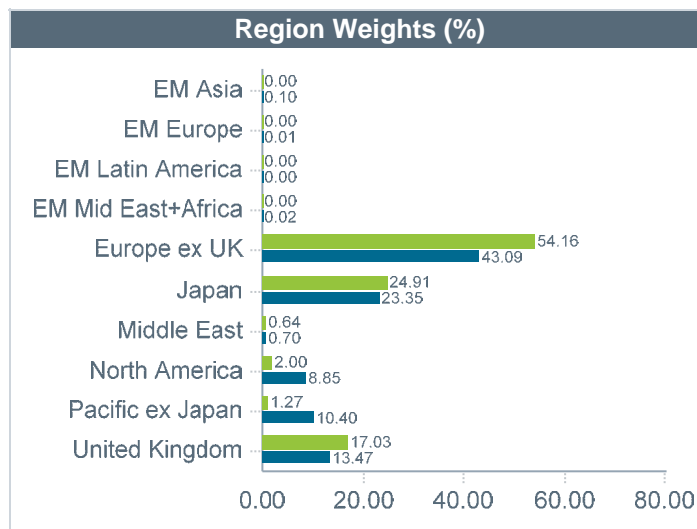
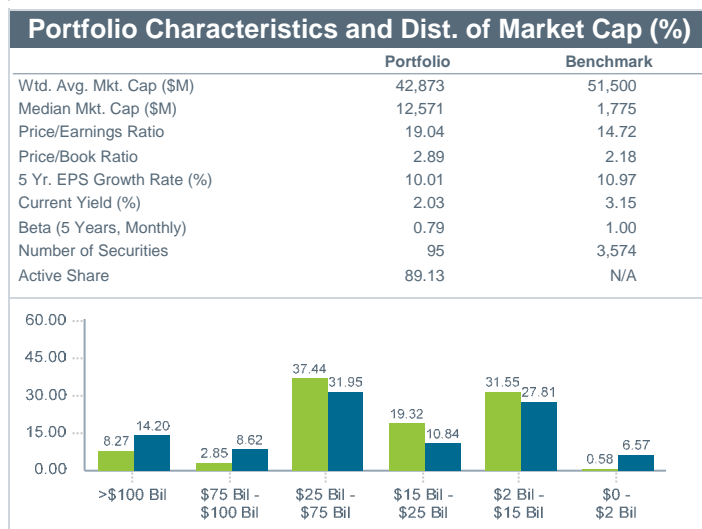
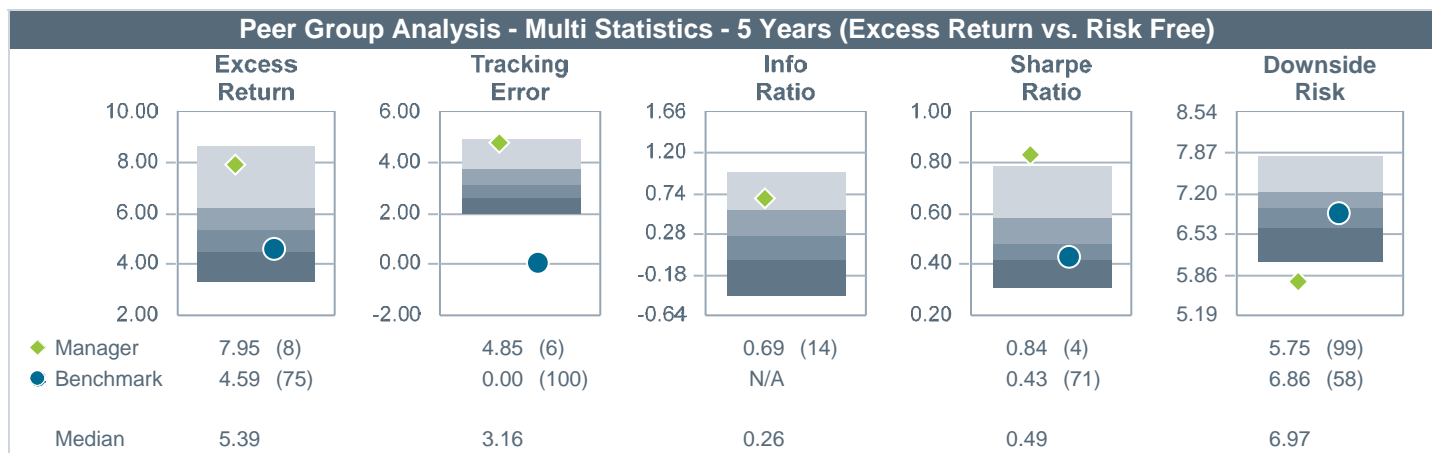
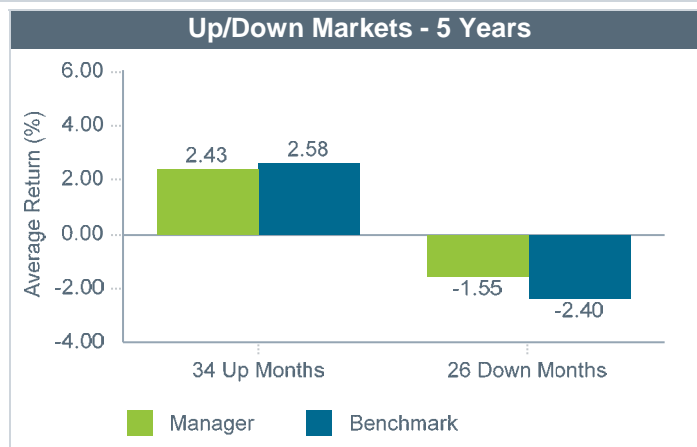
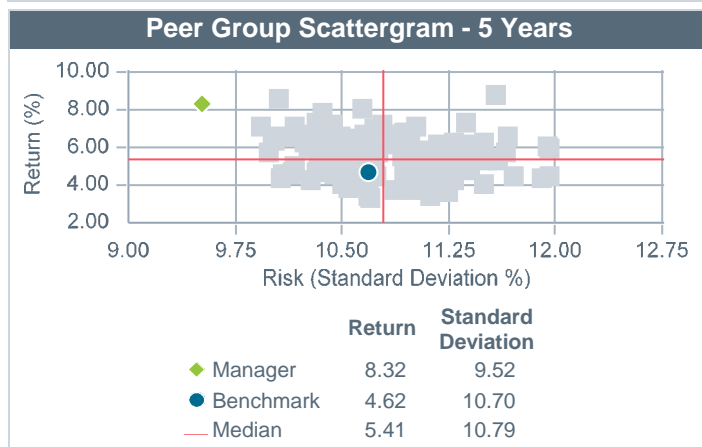
Peer Group: IM All EAFE (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	1.04	3.24	10.21	5.05	N/A	N/A	25.71	3.45	-1.62	-4.13	21.90
Benchmark	0.98	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	-4.45	21.57
Difference	0.06	0.46	0.49	0.43	N/A	N/A	0.54	0.50	0.33	0.32	0.33
Peer Group Median	1.20	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	-4.26	24.32
Rank	54	38	37	59	N/A	N/A	59	22	75	50	71
Population	171	170	170	167	160	149	184	195	211	209	203



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	2017	2016	2015	2014	2013
Manager	2.37	8.47	11.35	8.32	N/A	N/A	27.13	-0.22	7.17	1.31	31.52
Benchmark	0.98	2.78	9.72	4.62	8.20	5.64	25.17	2.95	-1.95	-4.45	21.57
Difference	1.39	5.69	1.63	3.70	N/A	N/A	1.96	-3.17	9.12	5.76	9.95
Peer Group Median	1.20	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	-4.26	24.32
Rank	16	10	16	7	N/A	N/A	42	69	6	6	7
Population	171	170	170	167	160	149	184	195	211	209	203

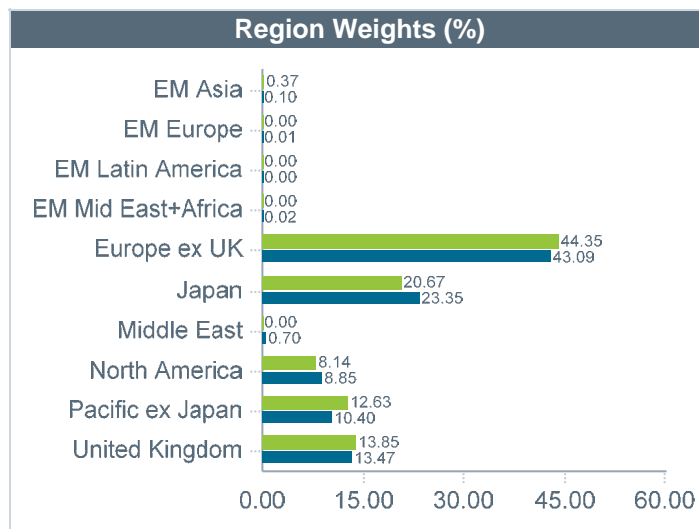
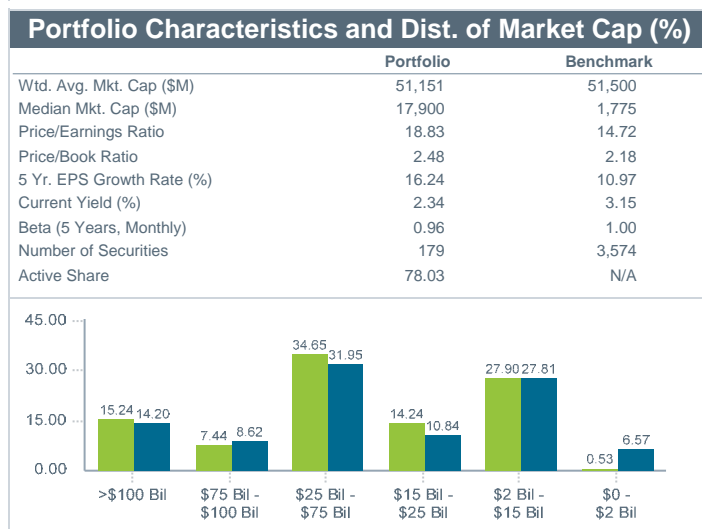
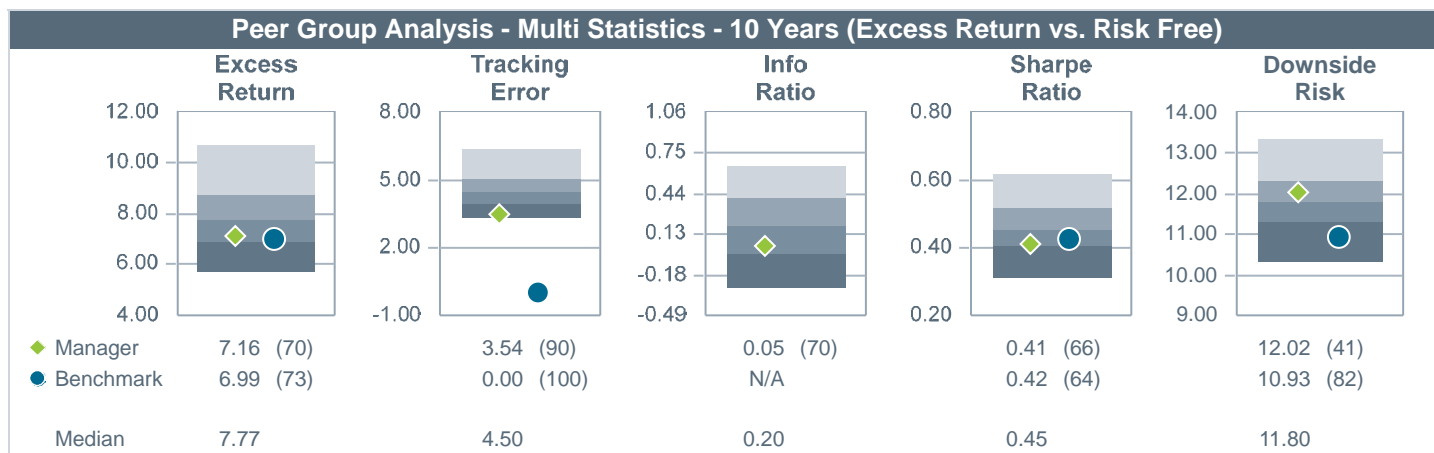
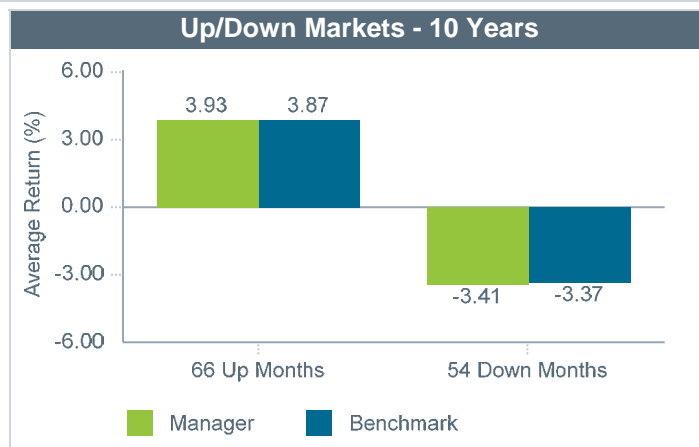
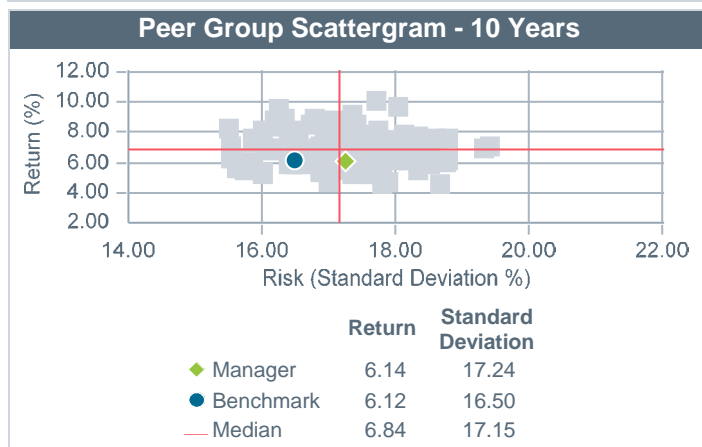


Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Manager: Fidelity Developed Int'l (SA)
Benchmark: International Developed Blend
Peer Group: IM All EAFE (SA+CF)

As of September 30, 2018

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	1.24	2.96	8.95	4.68	8.89	6.14	25.16	-0.70	0.99	-5.94	26.02
Benchmark	0.98	2.78	9.72	4.62	8.20	6.12	25.17	2.95	-1.95	-4.45	21.57
Difference	0.26	0.18	-0.77	0.06	0.69	0.02	-0.01	-3.65	2.94	-1.49	4.45
Peer Group Median	1.20	2.18	9.59	5.41	9.62	6.84	26.38	1.06	1.22	-4.26	24.32
Rank	48	42	65	72	73	69	67	73	54	80	35
Population	171	170	170	167	160	149	184	195	211	209	203



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



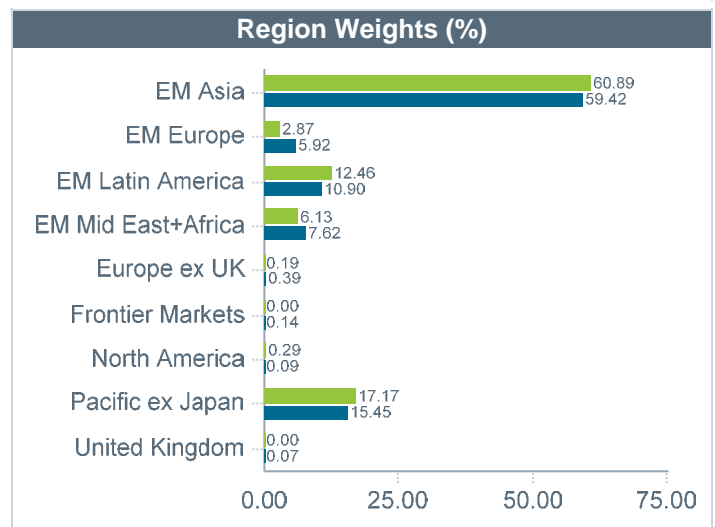
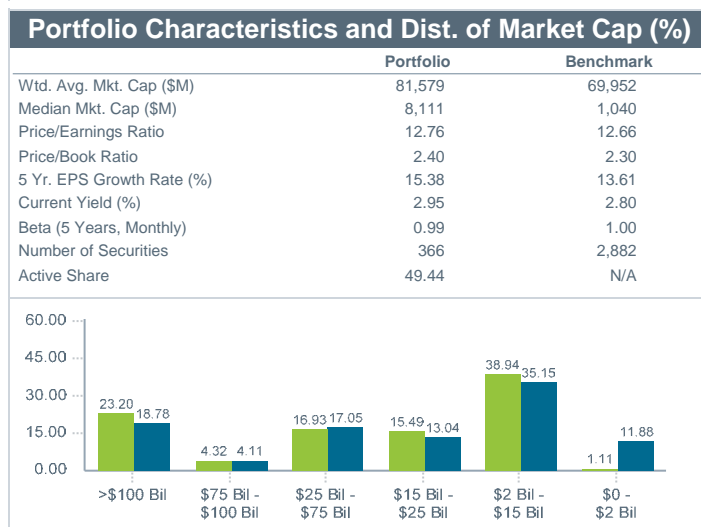
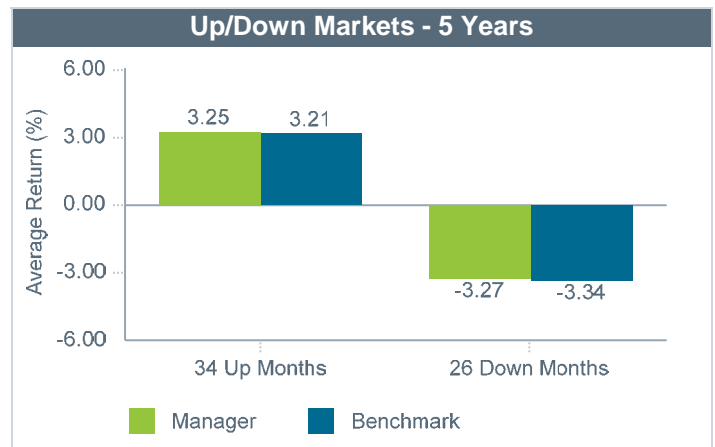
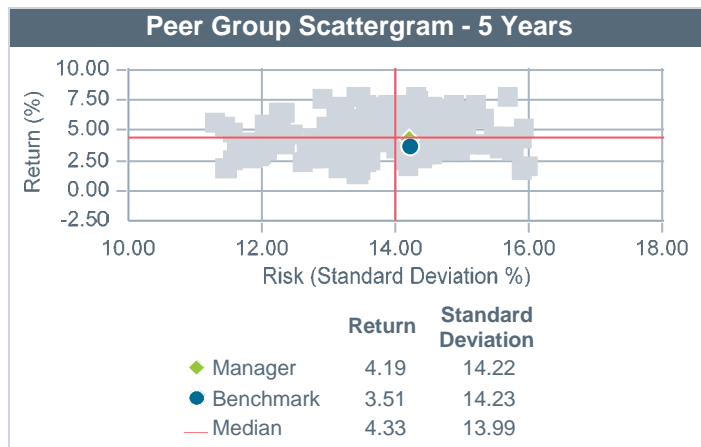
Manager: LA Capital Emerging (CF)

As of September 30, 2018

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

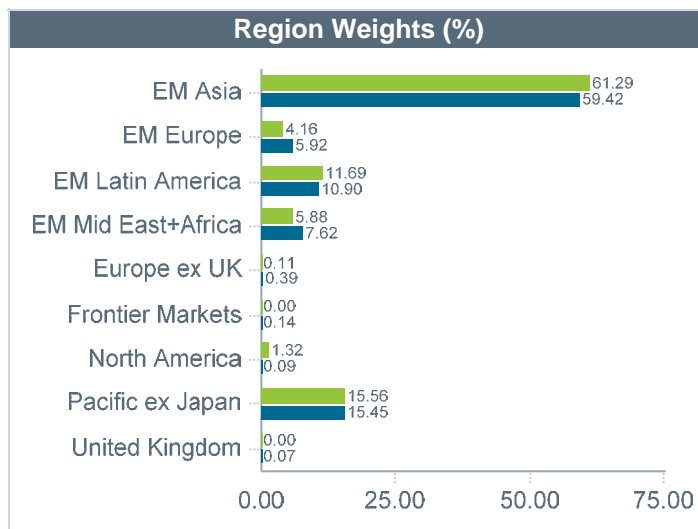
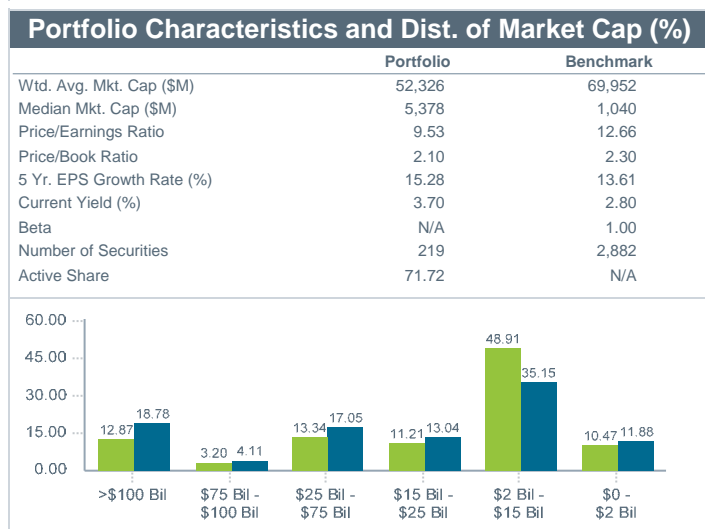
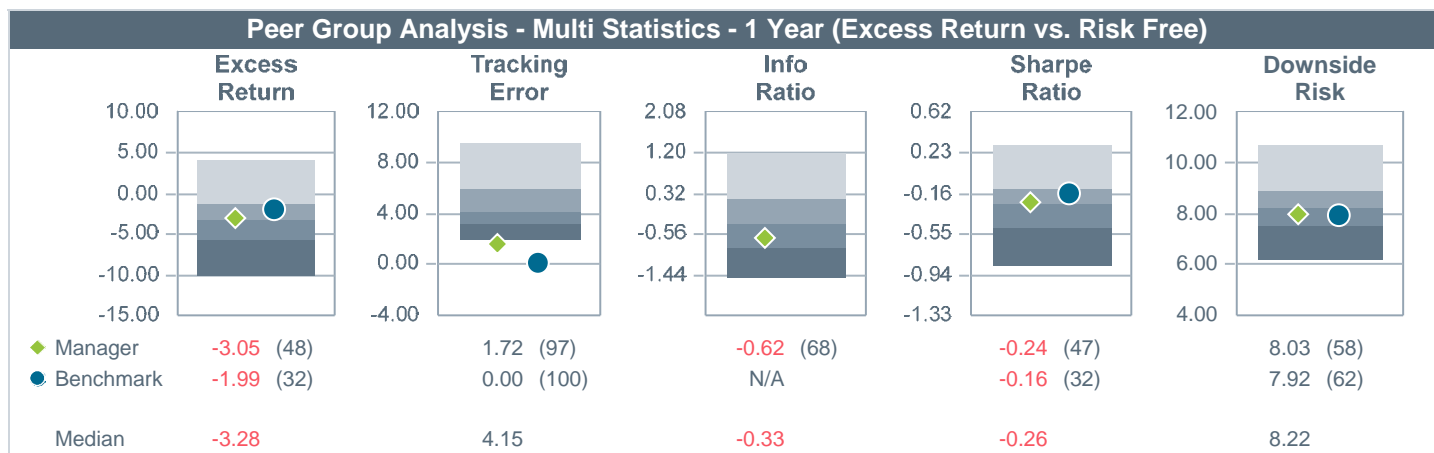
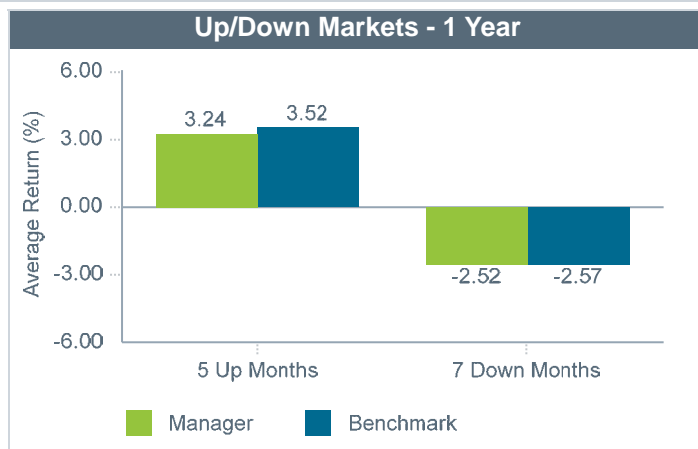
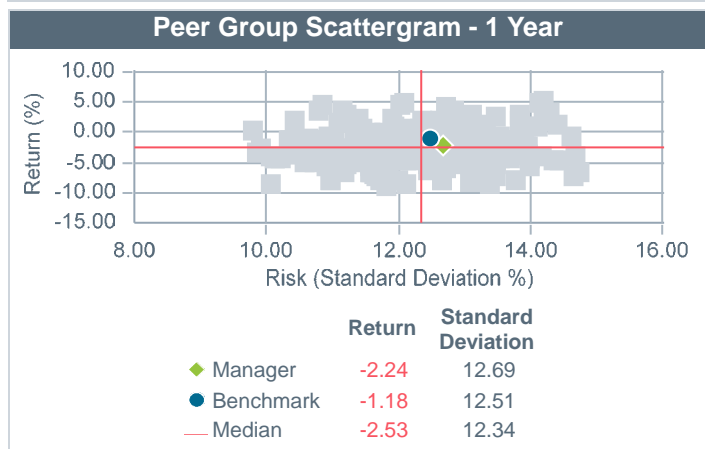
Peer Group: IM Emerging Markets Equity (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	-0.01	-0.88	12.11	4.19	N/A	N/A	37.13	12.18	-15.10	0.24	-1.67
Benchmark	-1.45	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	-1.79	-2.20
Difference	1.44	0.30	0.39	0.68	N/A	N/A	0.30	2.28	-1.24	2.03	0.53
Peer Group Median	-2.21	-2.53	12.04	4.33	6.31	6.73	36.95	10.09	-12.62	-0.09	0.98
Rank	22	30	50	55	N/A	N/A	49	35	72	47	69
Population	285	279	268	236	185	137	303	317	331	326	310



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	2017	2016	2015	2014	2013
Manager	-1.23	-2.24	N/A	N/A	N/A	N/A	41.01	N/A	N/A	N/A	N/A
Benchmark	-1.45	-1.18	11.72	3.51	5.00	5.65	36.83	9.90	-13.86	-1.79	-2.20
Difference	0.22	-1.06	N/A	N/A	N/A	N/A	4.18	N/A	N/A	N/A	N/A
Peer Group Median	-2.21	-2.53	12.04	4.33	6.31	6.73	36.95	10.09	-12.62	-0.09	0.98
Rank	40	48	N/A	N/A	N/A	N/A	29	N/A	N/A	N/A	N/A
Population	285	279	268	236	185	137	303	317	331	326	310



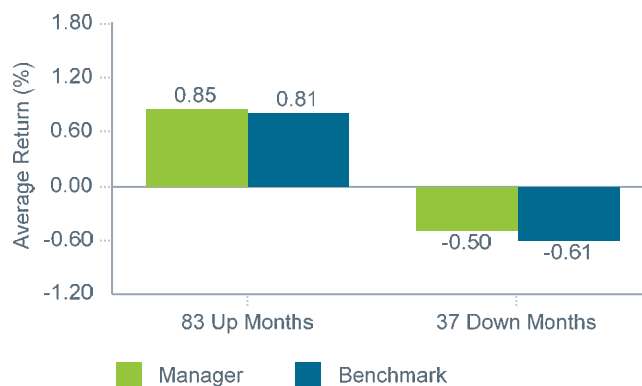
Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Parenthesis contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	0.74	0.29	3.02	3.35	3.53	5.27	4.88	5.00	0.78	6.05	-0.68
Benchmark	0.68	0.04	2.97	3.03	2.92	4.47	4.12	5.65	0.11	5.56	-1.35
Difference	0.06	0.25	0.05	0.32	0.61	0.80	0.76	-0.65	0.67	0.49	0.67
Peer Group Median	0.41	-0.20	2.75	2.92	3.24	5.26	4.54	4.54	0.26	6.01	-1.39
Rank	17	31	45	42	40	49	43	41	30	49	37
Population	77	76	72	67	56	38	86	92	80	49	49

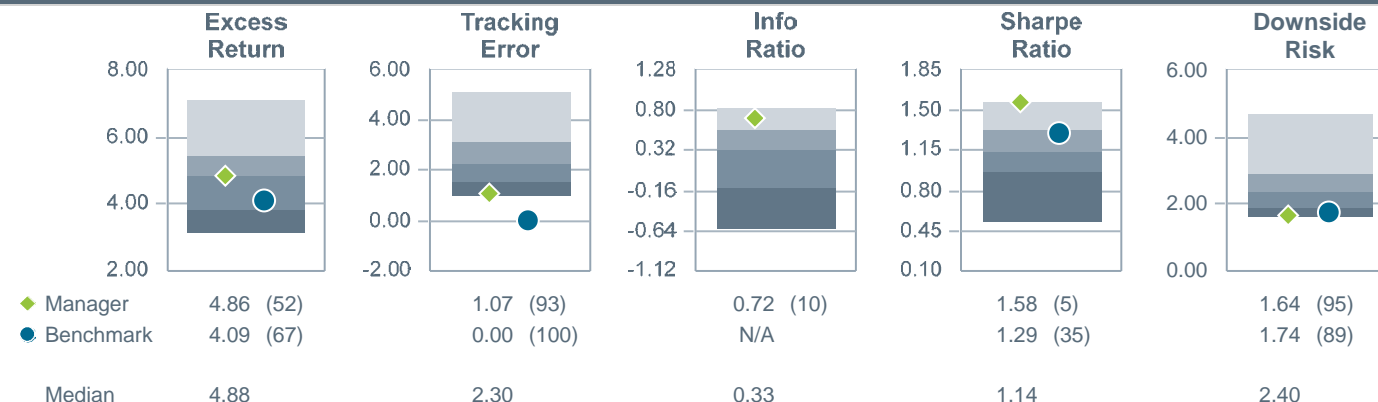
Peer Group Scattergram - 10 Years



Up/Down Markets - 10 Years



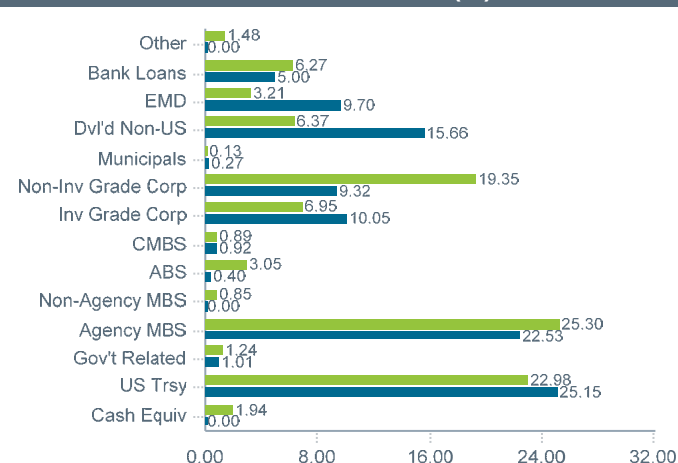
Peer Group Analysis - Multi Statistics - 10 Years (Excess Return vs. Risk Free)



Portfolio Characteristics

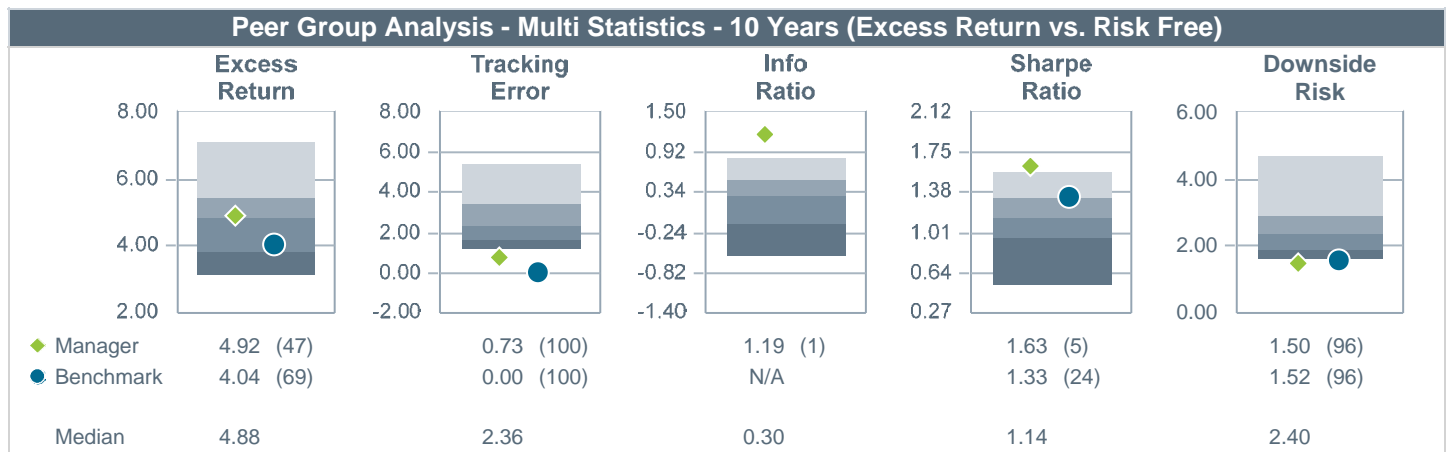
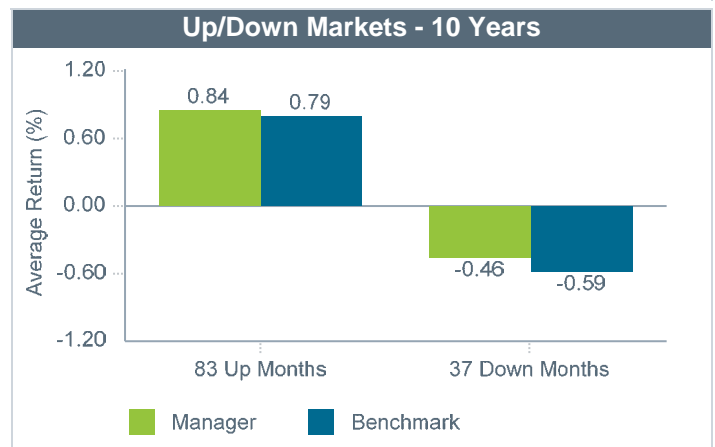
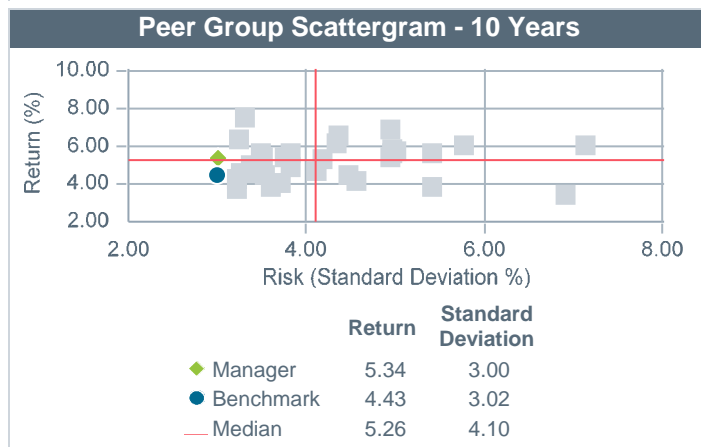
	Portfolio	Benchmark
Effective Duration	4.48	N/A
Spread Duration	3.51	N/A
Avg. Maturity	6.48	6.31
Avg. Quality	A1	A2
Yield To Maturity (%)	4.37	4.32
Coupon Rate (%)	4.19	3.77
Current Yield (%)	4.31	3.80
Holdings Count	1,731	N/A

Sector Distribution (%)

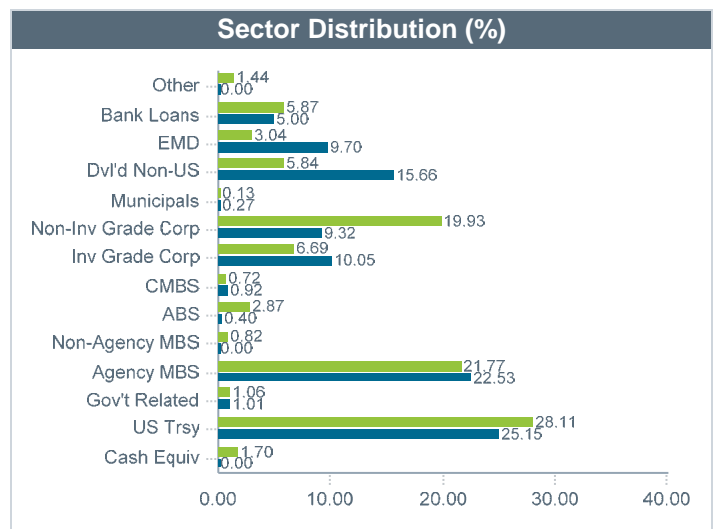


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Composite allocation to Non-Inv Grade Corp may include some Inv Grade Corp and allocation to Agency MBS may include some Non-Agency MBS. Allocation to "Other" consists of Preferred Stock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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	0.71	0.32	2.98	3.33	3.42	5.34	4.89	4.85	0.83	6.05	-0.82
Benchmark	0.68	0.04	2.97	3.03	2.92	4.43	4.12	5.65	0.11	5.56	-1.35
Difference	0.03	0.28	0.01	0.30	0.50	0.91	0.77	-0.80	0.72	0.49	0.53
Peer Group Median	0.41	-0.20	2.75	2.92	3.24	5.26	4.54	4.54	0.26	6.01	-1.39
Rank	19	31	45	42	43	46	43	42	27	49	38
Population	77	76	72	67	56	38	86	92	80	49	49



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.49	N/A
Spread Duration	3.55	N/A
Avg. Maturity	6.55	6.31
Avg. Quality	A1	A2
Yield To Maturity (%)	4.37	4.32
Coupon Rate (%)	3.95	3.77
Current Yield (%)	4.05	3.80
Holdings Count	1,129	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.

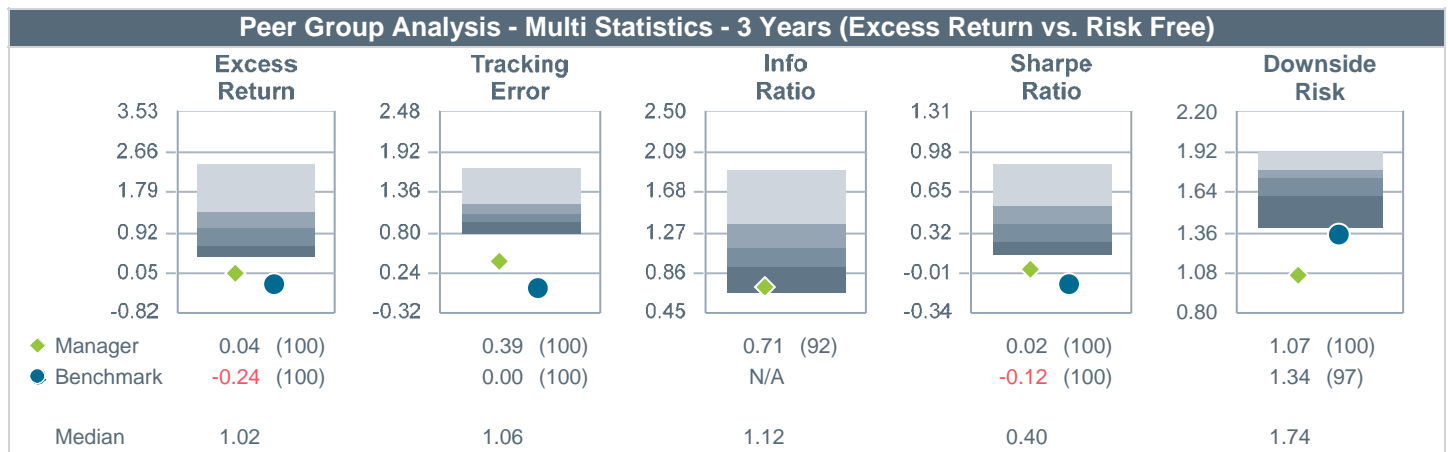
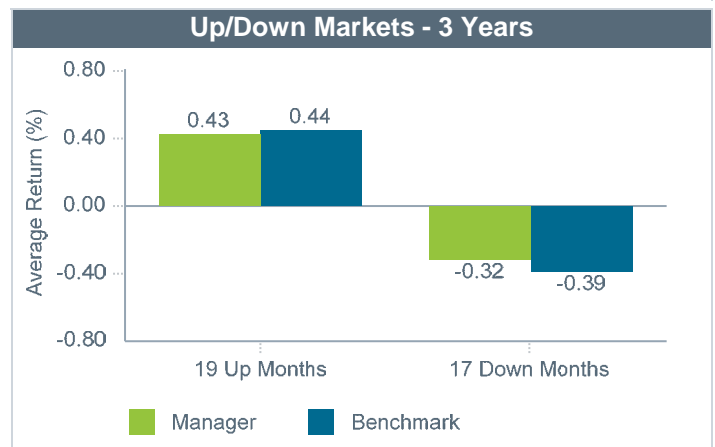
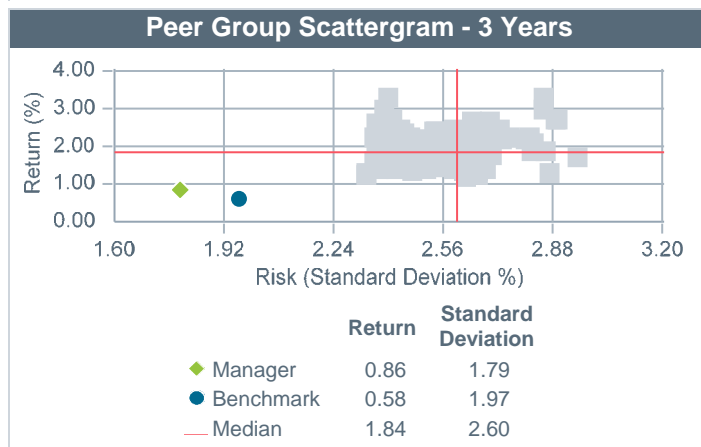
Manager: JP Morgan Principal Protection (SA)

As of September 30, 2018

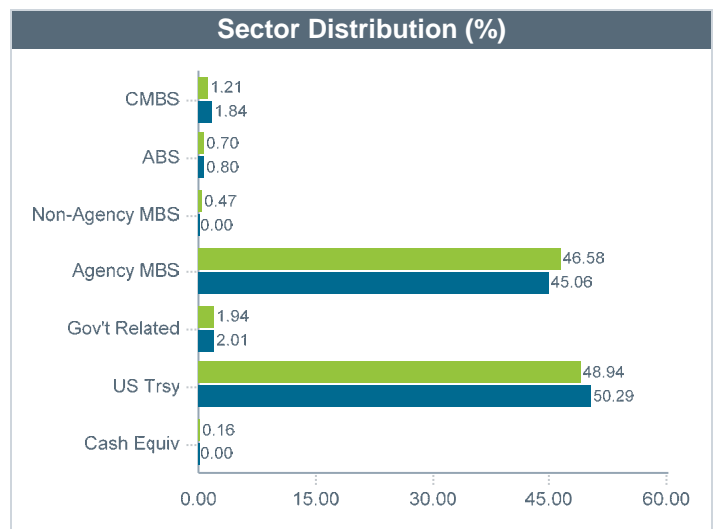
Benchmark: Bloomberg US Int Agg Ex Credit

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	0.07	-0.61	0.86	N/A	N/A	N/A	1.86	2.02	N/A	N/A	N/A
Benchmark	-0.09	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	4.11	-1.27
Difference	0.16	0.42	0.28	N/A	N/A	N/A	0.06	0.62	N/A	N/A	N/A
Peer Group Median	0.18	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	6.17	-1.56
Rank	74	36	100	N/A	N/A	N/A	100	97	N/A	N/A	N/A
Population	145	145	141	137	132	128	151	161	164	178	189



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.01	4.40
Spread Duration	2.54	2.68
Avg. Maturity	4.83	5.36
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	3.30	3.23
Coupon Rate (%)	3.45	2.80
Current Yield (%)	3.73	2.85
Holdings Count	353	3,546



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

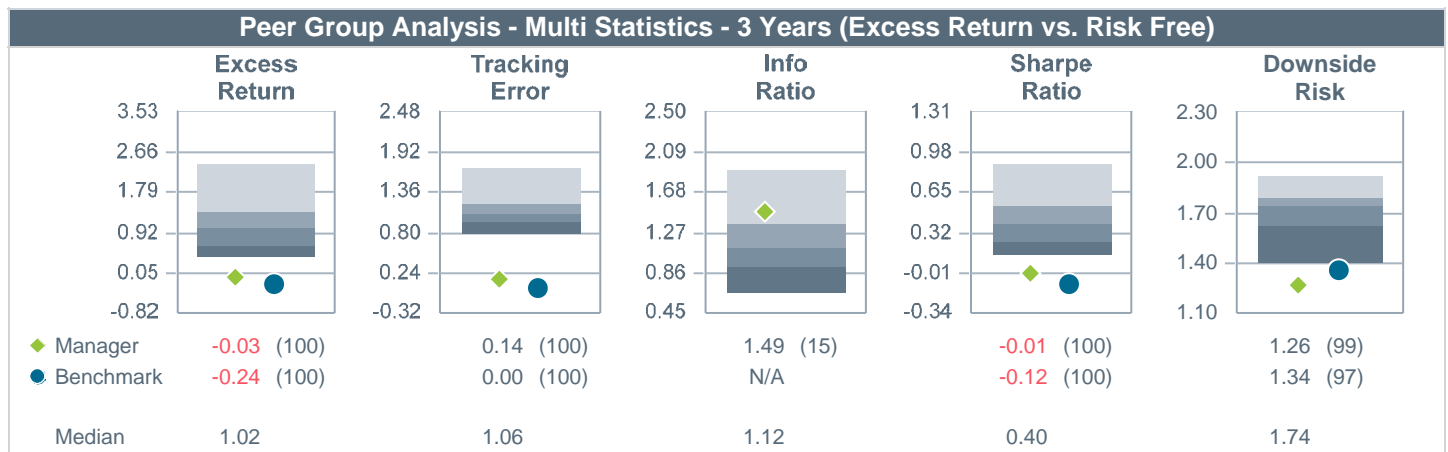
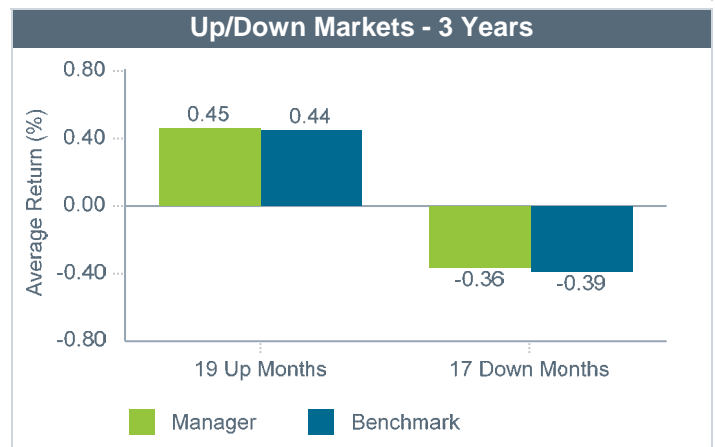
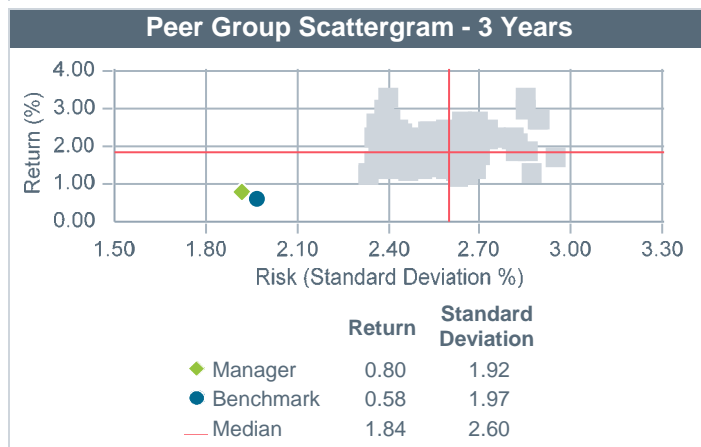
Manager: Wells Principal Protection (SA)

As of September 30, 2018

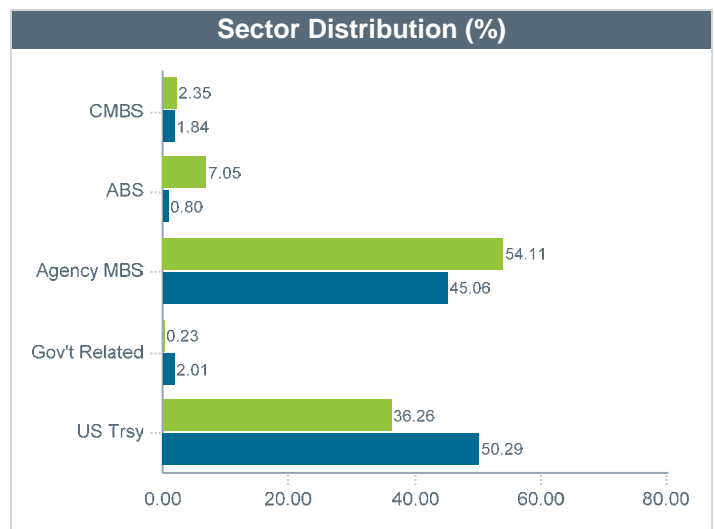
Benchmark: Bloomberg US Int Agg Ex Credit

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	-0.05	-1.01	0.80	N/A	N/A	N/A	1.94	1.86	N/A	N/A	N/A
Benchmark	-0.09	-1.03	0.58	1.45	1.36	2.86	1.80	1.40	1.32	4.11	-1.27
Difference	0.04	0.02	0.22	N/A	N/A	N/A	0.14	0.46	N/A	N/A	N/A
Peer Group Median	0.18	-0.74	1.84	2.61	2.66	4.60	4.06	3.10	0.82	6.17	-1.56
Rank	91	71	100	N/A	N/A	N/A	100	98	N/A	N/A	N/A
Population	145	145	141	137	132	128	151	161	164	178	189



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	4.43	4.40
Spread Duration	3.21	2.68
Avg. Maturity	6.11	5.36
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	3.55	3.23
Coupon Rate (%)	3.31	2.80
Current Yield (%)	3.33	2.85
Holdings Count	380	3,546



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

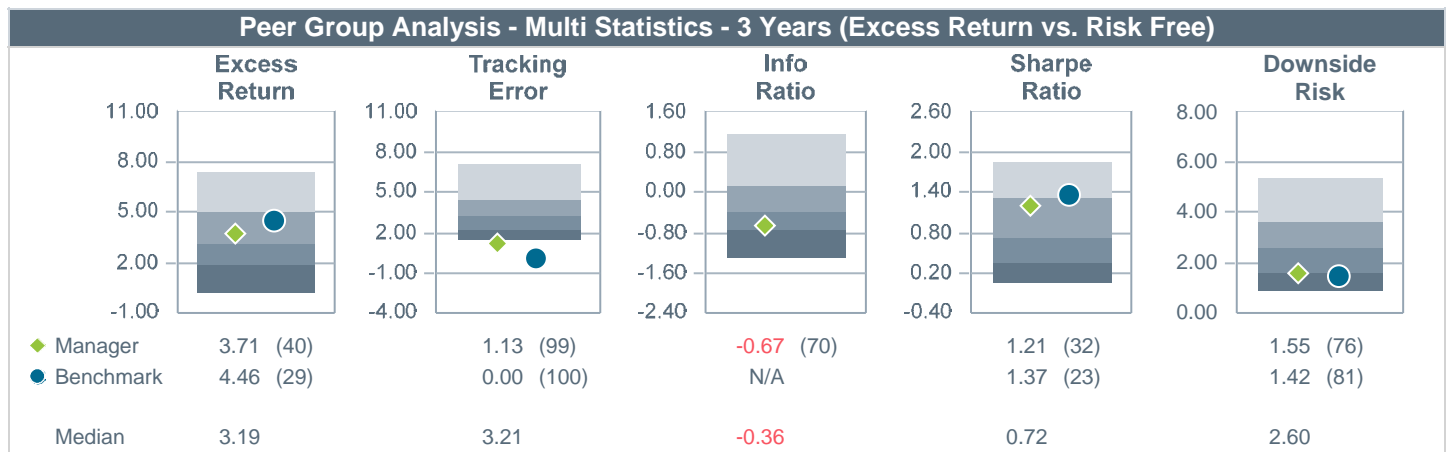
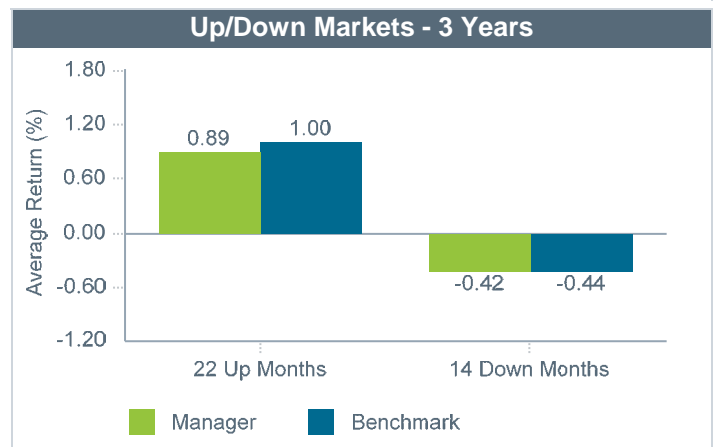
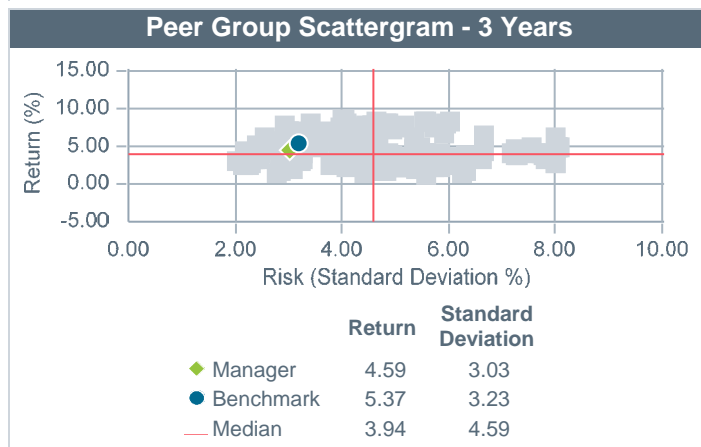
Manager: Macquarie Unconstrained (SA)

As of September 30, 2018

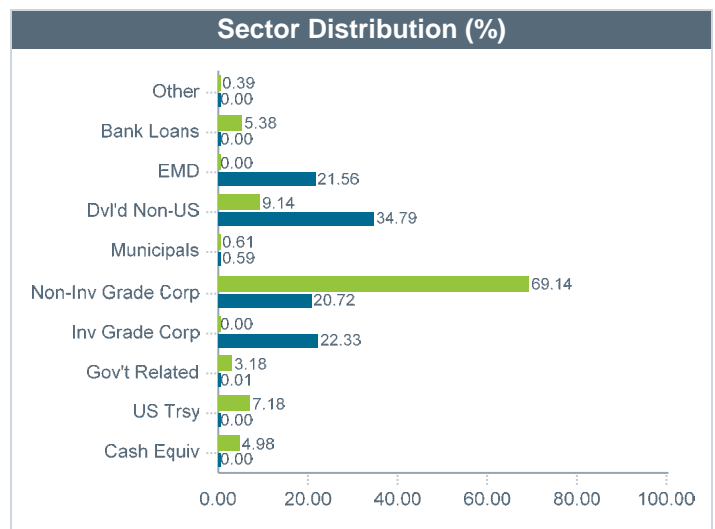
Benchmark: 67% B Global Credit/33% B Global High Yield

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	0.91	-0.33	4.59	N/A	N/A	N/A	7.86	8.37	N/A	N/A	N/A
Benchmark	1.39	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	5.28	2.58
Difference	-0.48	-0.95	-0.78	N/A	N/A	N/A	1.13	-1.67	N/A	N/A	N/A
Peer Group Median	0.49	0.32	3.94	2.78	3.43	4.65	7.63	5.76	-2.37	2.46	-0.16
Rank	41	59	39	N/A	N/A	N/A	46	35	N/A	N/A	N/A
Population	215	214	210	190	159	111	233	250	262	264	257



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.11	5.50
Spread Duration	N/A	5.48
Avg. Maturity	7.40	7.49
Avg. Quality	Baa2	Baa3
Yield To Maturity (%)	4.91	5.24
Coupon Rate (%)	4.87	4.62
Current Yield (%)	4.87	4.63
Holdings Count	N/A	17,728



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

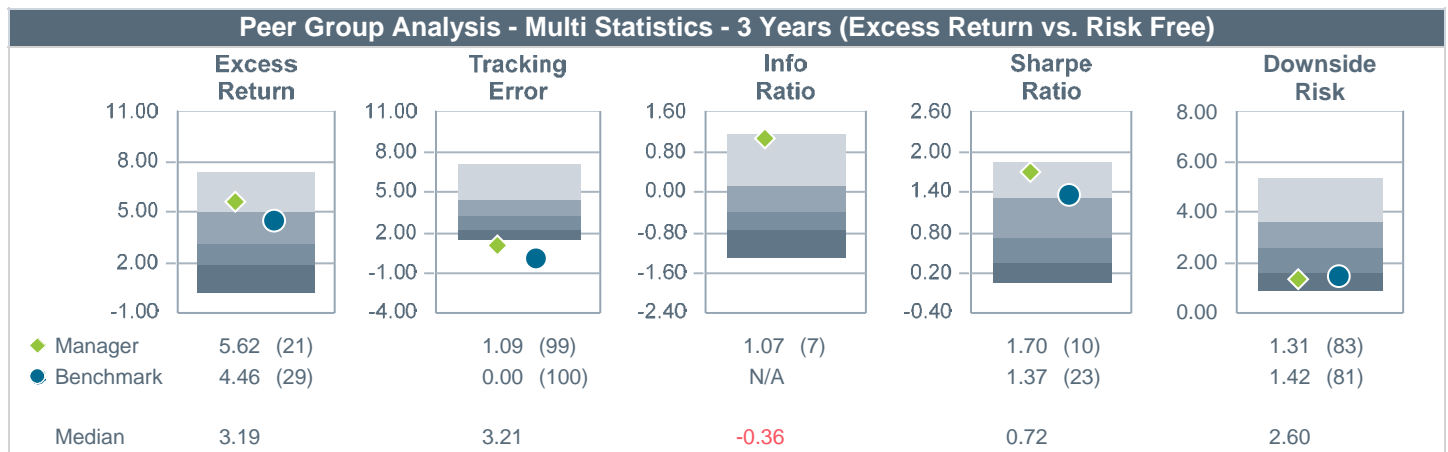
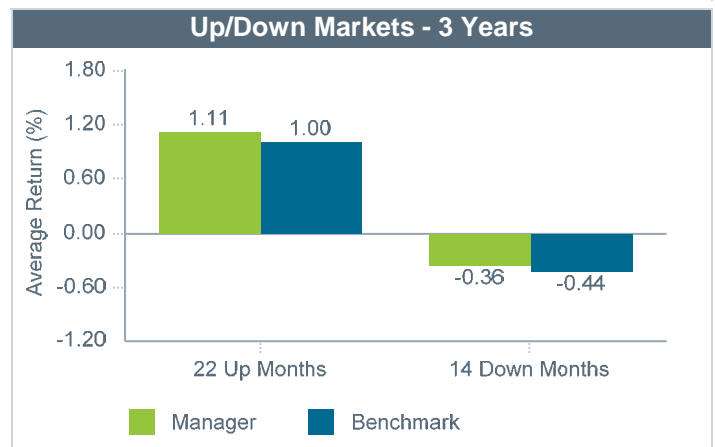
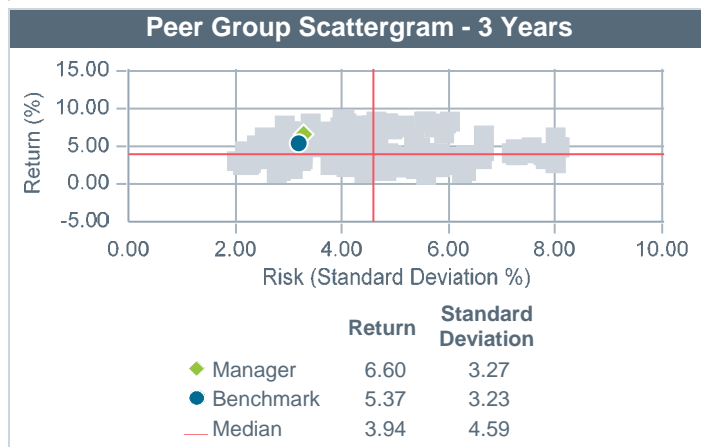
Manager: Neuberger Unconstrained (SA)

As of September 30, 2018

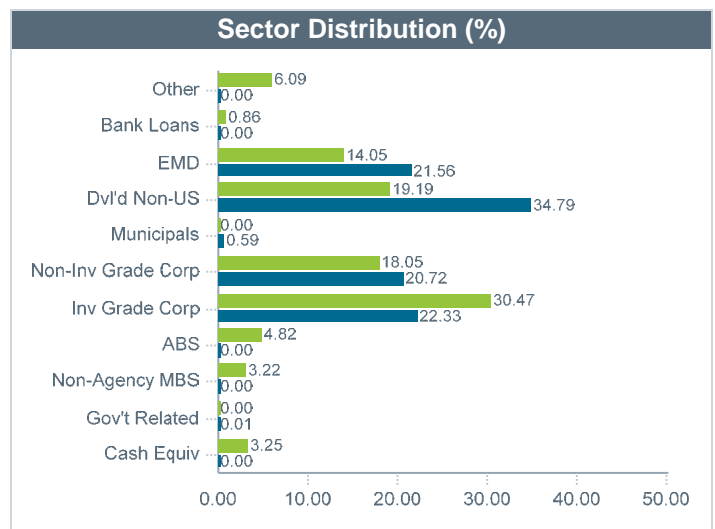
Benchmark: 67% B Global Credit/33% B Global High Yield

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	1.97	2.40	6.60	N/A	N/A	N/A	9.26	9.65	N/A	N/A	N/A
Benchmark	1.39	0.62	5.37	4.61	5.83	7.36	6.73	10.04	-0.34	5.28	2.58
Difference	0.58	1.78	1.23	N/A	N/A	N/A	2.53	-0.39	N/A	N/A	N/A
Peer Group Median	0.49	0.32	3.94	2.78	3.43	4.65	7.63	5.76	-2.37	2.46	-0.16
Rank	20	22	21	N/A	N/A	N/A	26	31	N/A	N/A	N/A
Population	215	214	210	190	159	111	233	250	262	264	257



Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	5.36	5.50
Spread Duration	5.61	5.48
Avg. Maturity	8.11	7.49
Avg. Quality	Baa3	Baa3
Yield To Maturity (%)	5.46	5.24
Coupon Rate (%)	4.96	4.62
Current Yield (%)	5.02	4.63
Holdings Count	845	17,728



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

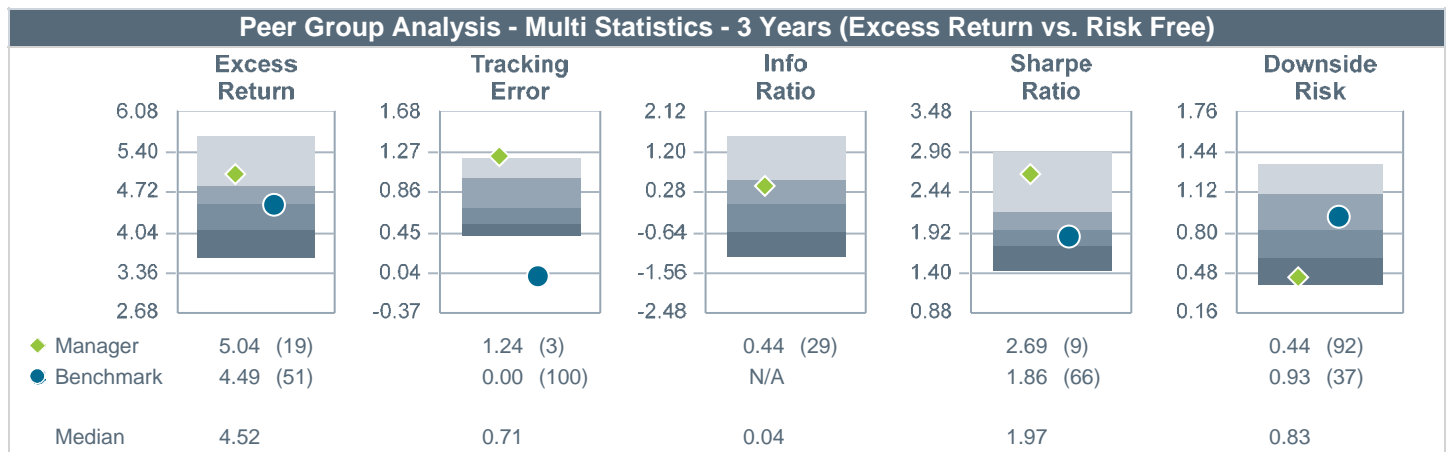
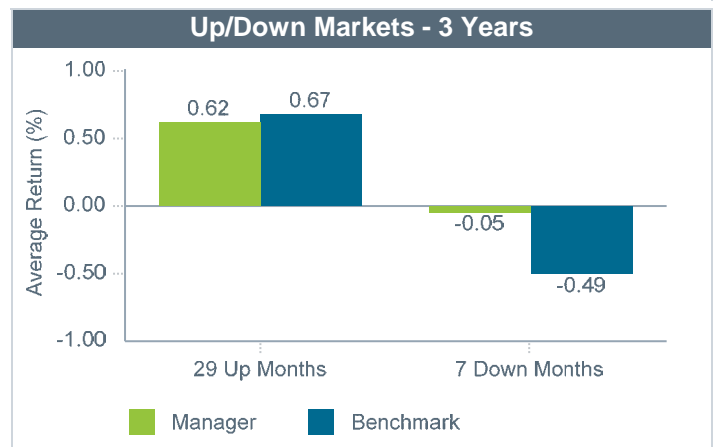
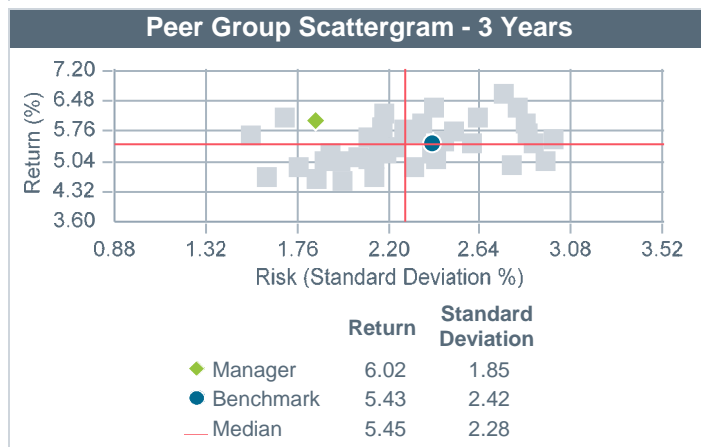
Manager: Pacific Asset Bank Loans (SA)

As of September 30, 2018

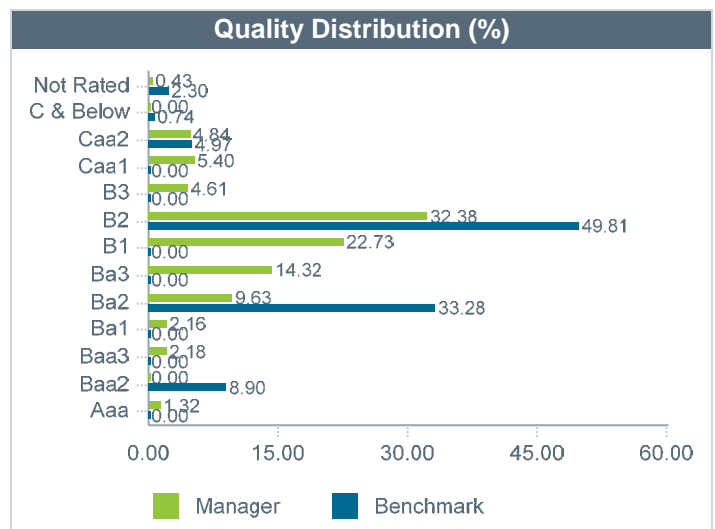
Benchmark: CS Lvg'd Loan Index

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

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	1.97	5.11	6.02	N/A	N/A	N/A	5.48	9.18	N/A	N/A	N/A
Benchmark	1.93	5.58	5.43	4.35	5.45	5.85	4.25	9.88	-0.38	2.06	6.15
Difference	0.04	-0.47	0.59	N/A	N/A	N/A	1.23	-0.70	N/A	N/A	N/A
Peer Group Median	1.88	5.41	5.45	4.48	5.73	6.26	4.46	9.51	0.68	2.07	6.28
Rank	33	64	19	N/A	N/A	N/A	7	59	N/A	N/A	N/A
Population	54	54	51	51	46	30	63	64	67	70	63



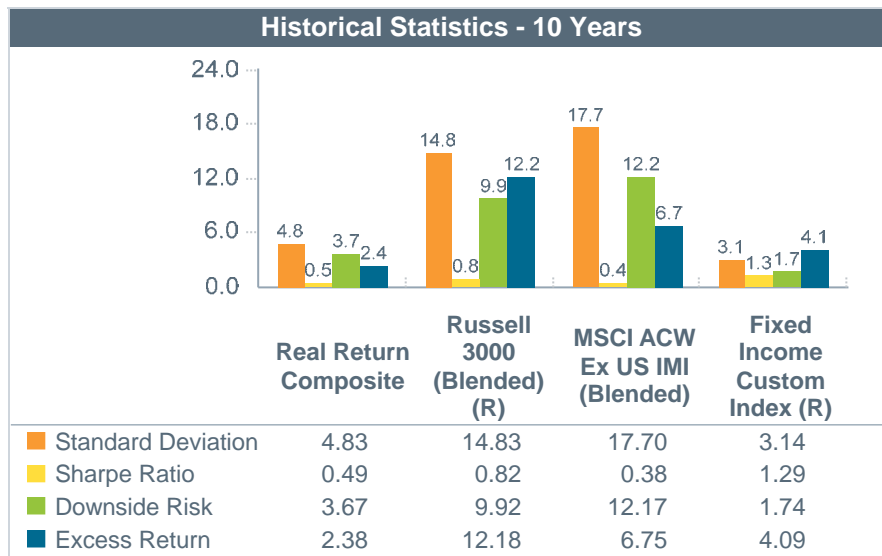
Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	0.32	N/A
Spread Duration	0.32	N/A
Avg. Maturity	5.26	5.19
Avg. Quality	B1	Ba2
Yield To Maturity (%)	6.48	6.92
Coupon Rate (%)	5.77	5.80
Current Yield (%)	6.48	5.88
Holdings Count	153	1,658



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

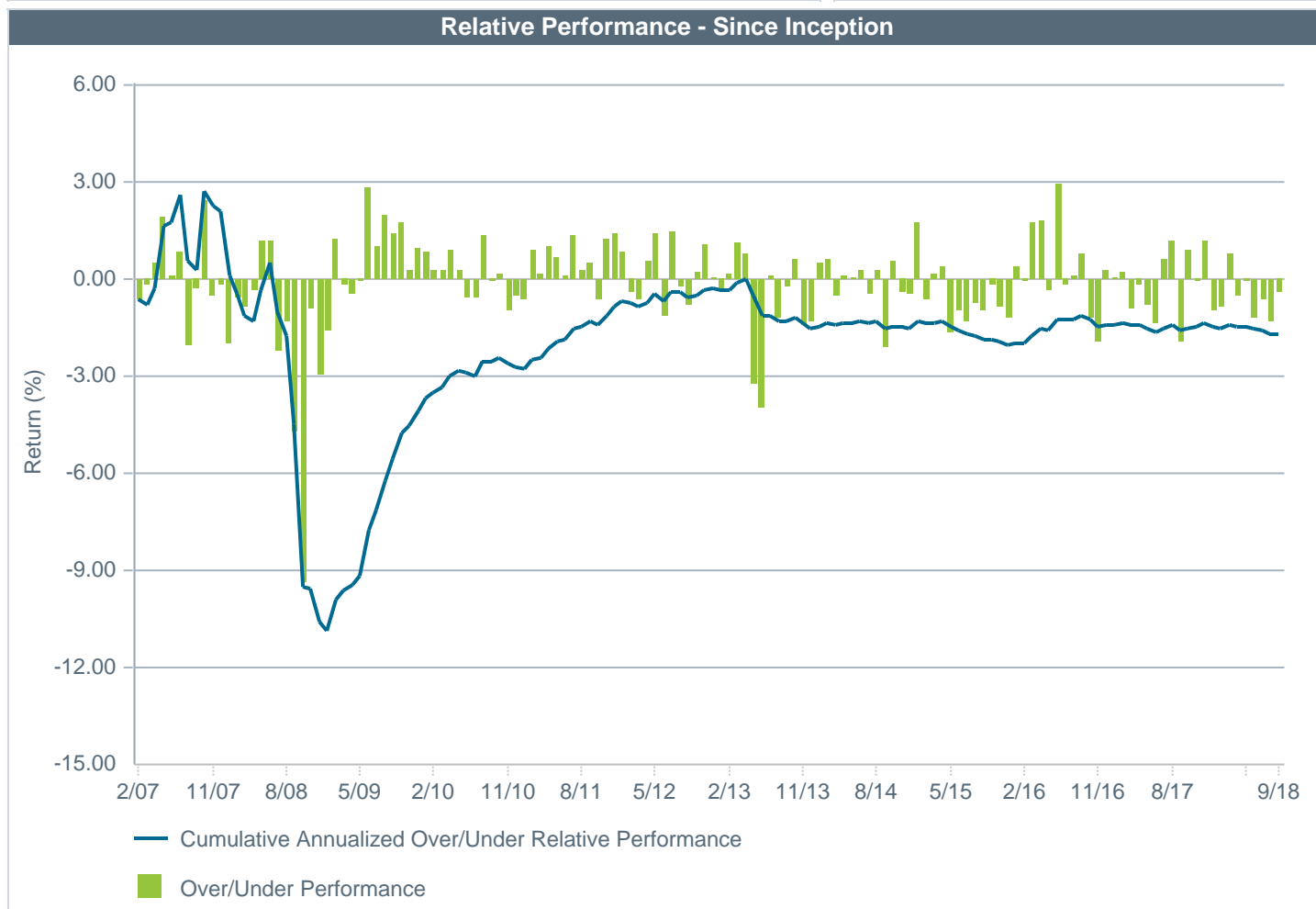


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	-1.09	2.26	3.69	2.20	2.17	2.63	4.05	9.90	-2.56	2.21	-4.88
Benchmark	1.20	5.34	5.06	4.58	4.22	3.92	5.17	5.15	3.68	3.68	4.05
Difference	-2.29	-3.08	-1.37	-2.38	-2.05	-1.29	-1.12	4.75	-6.24	-1.47	-8.93

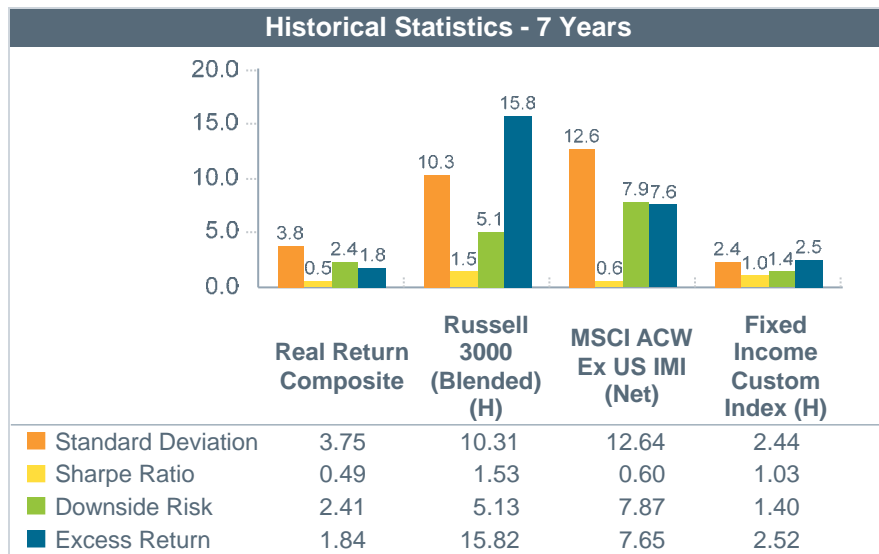


Actual Correlation - 10 Years

	Actual Correlation
Composite Benchmark	0.01
S&P 500 Index (Cap Wtd)	0.22
Russell 2000 Index	0.18
MSCI EAFE Index (USD) (Net)	0.24
MSCI Emg Mkts Index (USD) (Net)	0.36
Bloomberg US Agg Bond Index	0.47
Bloomberg US Trsy US TIPS Index	0.60
Wilshire US REIT Index	0.33
HFRI FOF Comp Index	0.37
Bloomberg Cmtty Index (TR)	0.41
ICE BofAML 3 Mo US T-Bill Index	-0.13
Cons Price Index (Unadjusted)	0.31

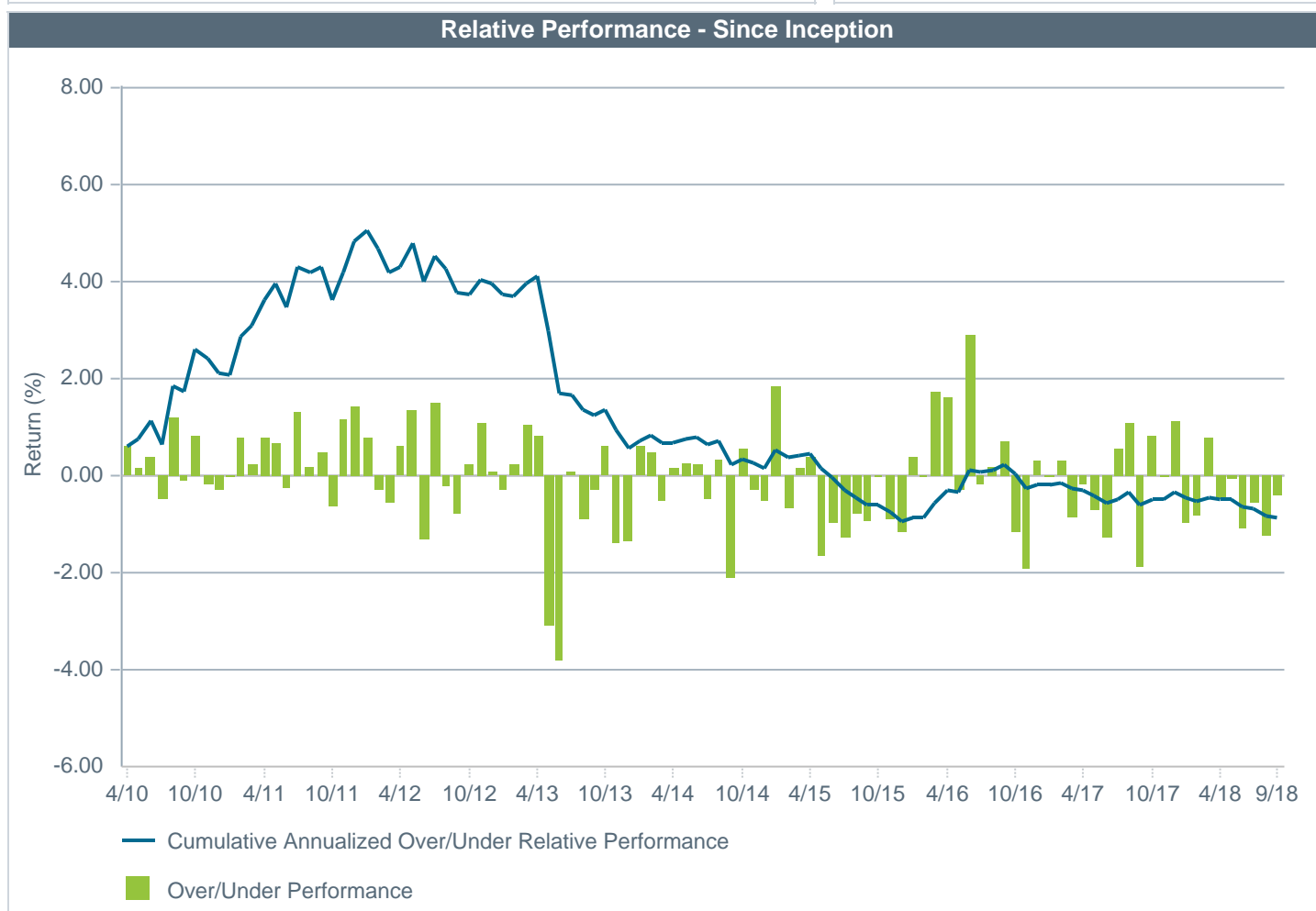


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	-1.04	2.21	3.62	2.14	2.18	N/A	3.97	9.56	-2.58	2.26	-4.45
Benchmark	1.20	5.34	5.06	4.58	4.22	3.92	5.17	5.15	3.68	3.68	4.05
Difference	-2.24	-3.13	-1.44	-2.44	-2.04	N/A	-1.20	4.41	-6.26	-1.42	-8.50

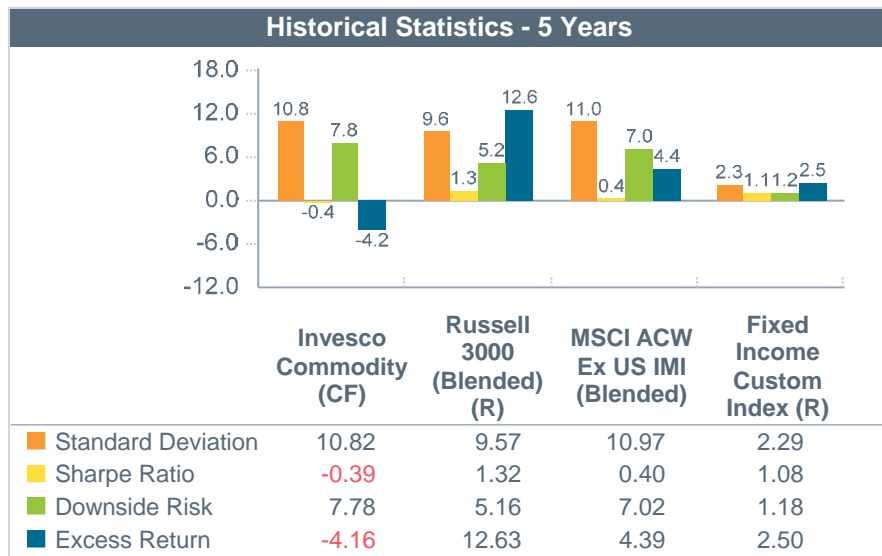


Actual Correlation - 7 Years

	Actual Correlation
Composite Benchmark	0.08
S&P 500 Index (Cap Wtd)	0.00
Russell 2000 Index	-0.05
MSCI EAFE Index (USD) (Net)	0.09
MSCI Emg Mkts Index (USD) (Net)	0.30
Bloomberg US Agg Bond Index	0.67
Bloomberg US Trsy US TIPS Index	0.76
Wilshire US REIT Index	0.30
HFRI FOF Comp Index	0.11
Bloomberg Cmtty Index (TR)	0.32
ICE BofAML 3 Mo US T-Bill Index	0.01
Cons Price Index (Unadjusted)	0.02

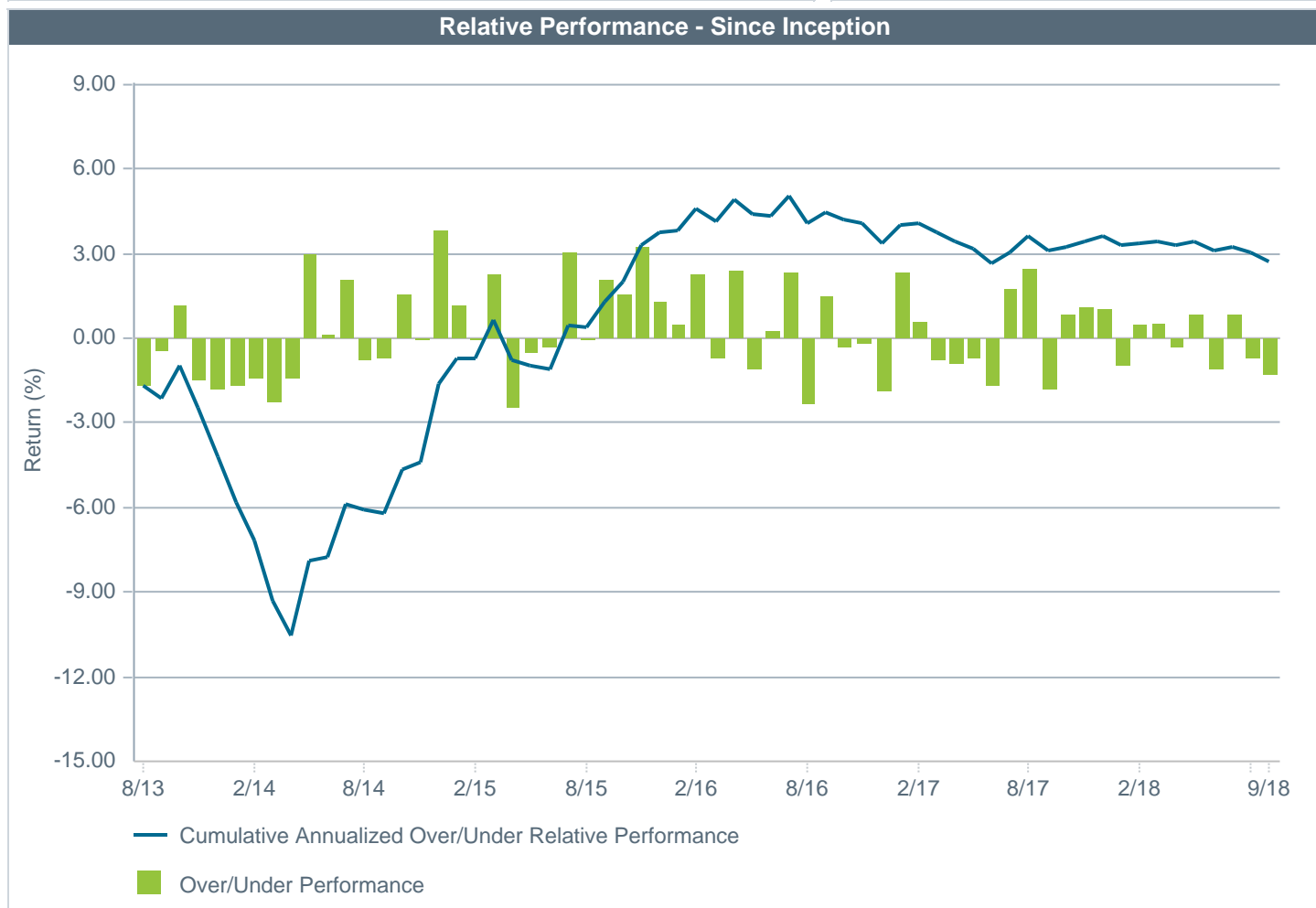


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	-3.13	3.88	3.64	-4.15	N/A	N/A	6.09	14.61	-15.75	-15.29	N/A
Benchmark	-2.02	2.59	-0.11	-7.18	-6.48	-6.24	1.70	11.77	-24.66	-17.01	-9.52
Difference	-1.11	1.29	3.75	3.03	N/A	N/A	4.39	2.84	8.91	1.72	N/A



Actual Correlation - 5 Years

	Actual Correlation
Manager Benchmark	0.89
S&P 500 Index (Cap Wtd)	0.21
Russell 2000 Index	0.20
MSCI EAFE Index (USD) (Net)	0.31
MSCI Emg Mkts Index (USD) (Net)	0.47
Bloomberg US Agg Bond Index	0.04
Bloomberg US Trsy US TIPS Index	0.28
Wilshire US REIT Index	0.00
HFRI FOF Comp Index	0.17
ICE BofAML 3 Mo US T-Bill Index	0.15
Cons Price Index (Unadjusted)	0.34



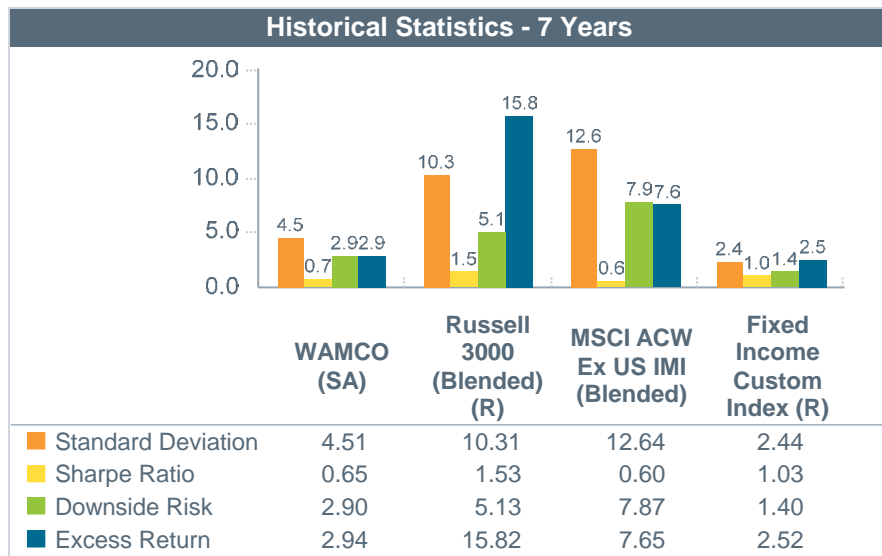
Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity.

Manager: WAMCO (SA)

As of September 30, 2018

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

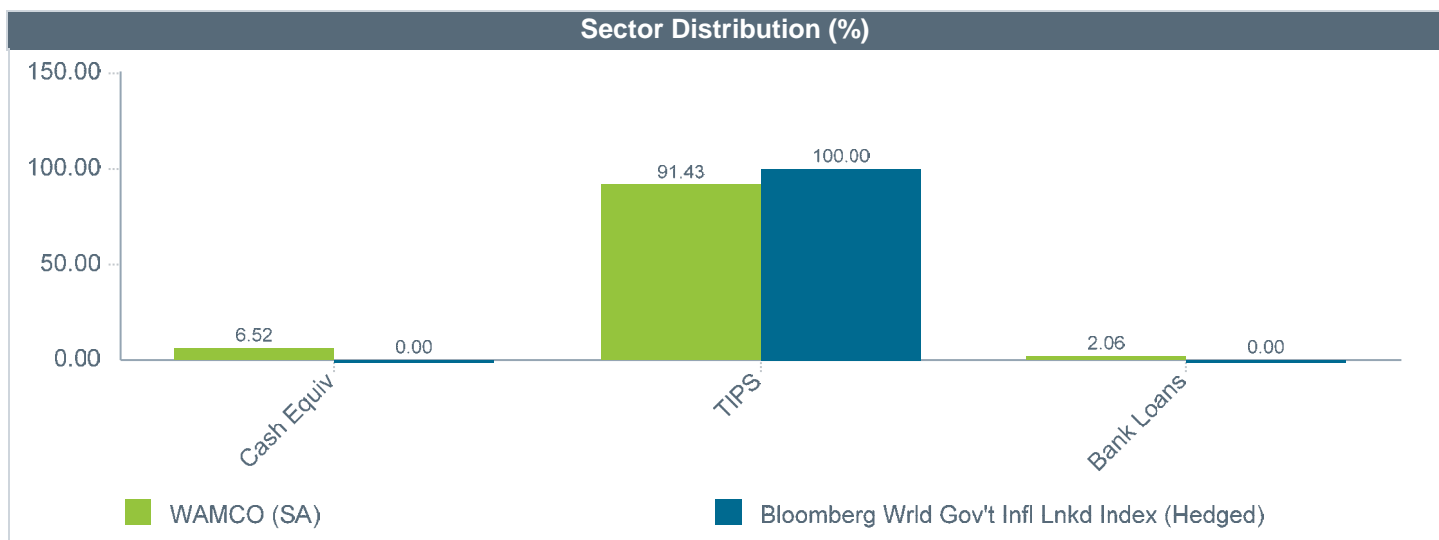
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	-0.45	1.77	3.90	3.83	3.28	N/A	3.33	9.37	-0.22	8.75	-5.64
Benchmark	-0.84	2.06	3.93	3.80	3.33	4.38	3.32	10.22	-1.12	9.04	-5.51
Difference	0.39	-0.29	-0.03	0.03	-0.05	N/A	0.01	-0.85	0.90	-0.29	-0.13



Actual Correlation - 7 Years

	Actual Correlation
Manager Benchmark	0.97
S&P 500 Index (Cap Wtd)	-0.01
Russell 2000 Index	-0.09
MSCI EAFE Index (USD) (Net)	0.06
MSCI Emg Mkts Index (USD) (Net)	0.20
Bloomberg US Agg Bond Index	0.80
Bloomberg US Trsy US TIPS Index	0.80
Wilshire US REIT Index	0.42
HFRI FOF Comp Index	0.07
Bloomberg Cmtty Index (TR)	-0.07
ICE BofAML 3 Mo US T-Bill Index	-0.05
Cons Price Index (Unadjusted)	-0.14

Portfolio Characteristics		
	Portfolio	Benchmark
Effective Duration	10.53	N/A
Spread Duration	N/A	N/A
Avg. Maturity	11.20	11.12
Avg. Quality	Aa1	Aaa
Yield To Maturity (%)	3.27	N/A
Coupon Rate (%)	0.99	N/A
Yield To Worst (%)	1.33	-0.51
Current Yield (%)	1.52	N/A
Holdings Count	55	141



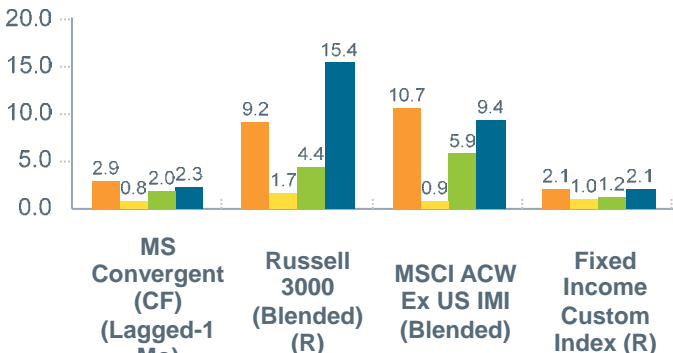
Performance shown is gross of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity. Allocation to "Other" consists of Eurobonds.

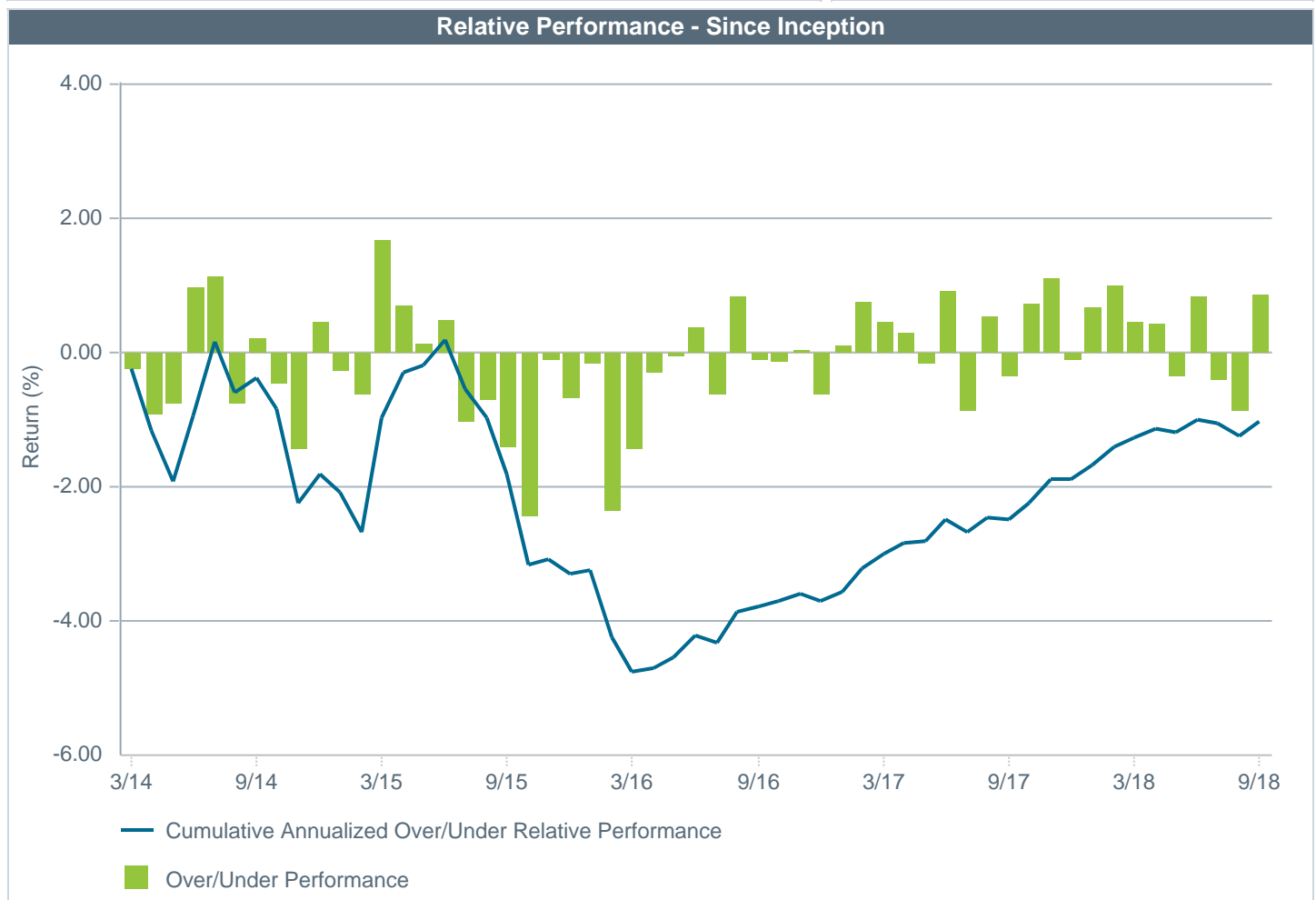
Manager: MS Convergent (CF) (Lagged-1 Mo)

As of September 30, 2018

Benchmark: ICE BofAML 3 Mo US T-Bill Index+3% (1 Mo Lag)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2017	2016	2015	2014	2013
Manager	0.83	9.16	3.17	N/A	N/A	N/A	7.39	-1.27	-1.34	N/A	N/A
Benchmark	1.25	4.57	3.81	3.50	3.38	3.37	3.81	3.33	3.02	3.05	3.08
Difference	-0.42	4.59	-0.64	N/A	N/A	N/A	3.58	-4.60	-4.36	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	0.41
Standard Deviation	2.94	9.17	10.66	2.09	S&P 500 Index (Cap Wtd)	-0.34
Sharpe Ratio	0.81	1.69	0.88	0.99	Russell 2000 Index	-0.23
Downside Risk	1.96	4.41	5.91	1.17	MSCI EAFE Index (USD) (Net)	-0.28
Excess Return	2.33	15.45	9.43	2.11	MSCI Emg Mkts Index (USD) (Net)	-0.24
					Bloomberg US Agg Bond Index	-0.24
					Bloomberg US Trsy US TIPS Index	-0.29
					Wilshire US REIT Index	-0.34
					HFRI FOF Comp Index	-0.02
					Bloomberg Cmtty Index (TR)	0.01
					ICE BofAML 3 Mo US T-Bill Index	0.35
					Cons Price Index (Unadjusted)	0.23



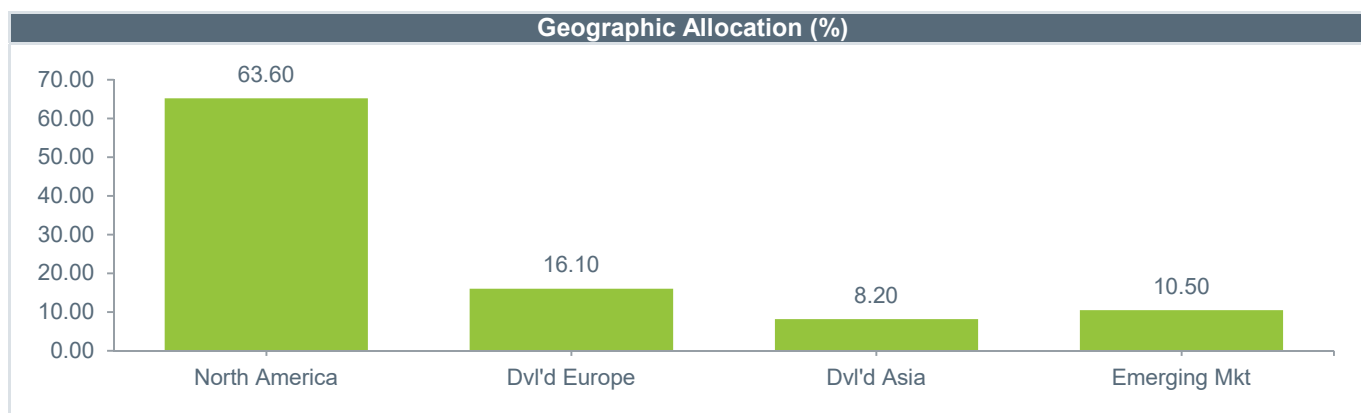
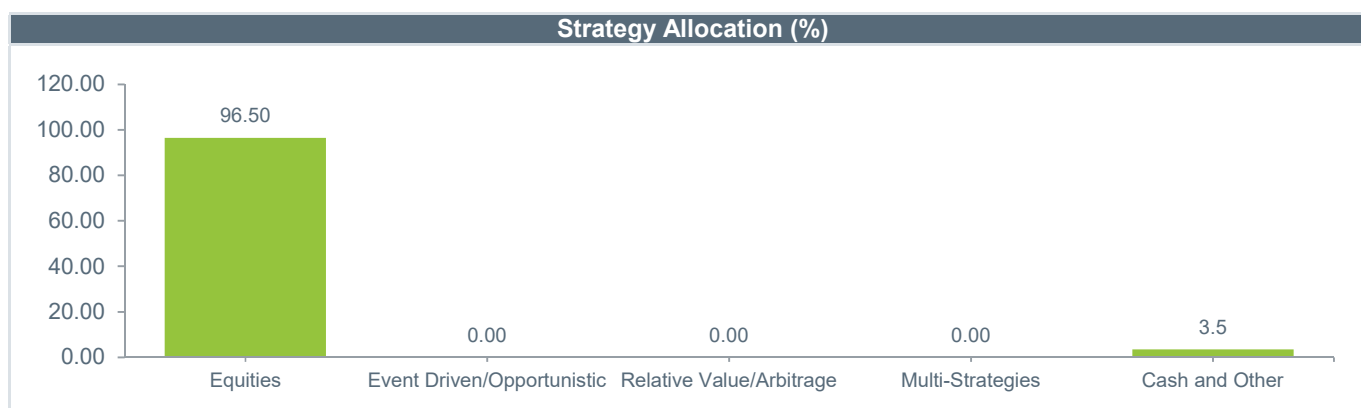
Performance shown is net of fees and representative of the Retirement Plan. Calculation is based on monthly periodicity.



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)	\$22
Percentage Employee Owned	0.00%

Fund Statistics	
Fund Inception	2014
Fund Size (\$M)	\$3
Number of Underlying Managers	1
Maximum Weighting of an Underlying Manager	100%
Current Leverage (Assets/Equity)	None
Annual Manager Turnover	11.00%
Annual Management Fee	None
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.

While California Govt. Code sec. 7514.7 requires certain fund information be disclosed to the public, sec. 6254.26(a) exempts from public disclosure certain contract terms, such as management fees expressed as a percentage, unless the fund manager consents to release such information. In this case, Morgan Stanley has consented to release this information to the public.

Allocation by Strategy	
Strategy	Allocation (%)
Equities L/S Opportunistic	0.0
Event Driven Equity	0.0
Equity L/S High Hedge	96.5
Equity L/S High Hedge Manager 1	96.5
Statistical Arbitrage	0.0
Mortgage Arbitrage	0.0
Multi-Strategy	0.0
Cash and Other	3.5
Cash and Other	3.5

Turnover		
Strategy	New	Terms/Trans
Equities L/S Opportunistic	3	11
Event Driven Equity	0	2
Equity L/S High Hedge	0	4
Statistical Arbitrage	0	4
Mortgage Arbitrage	0	3
Multi-Strategy	0	3
Cash and Other	0	0
Total Turnover	3	27

Investment Strategy

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

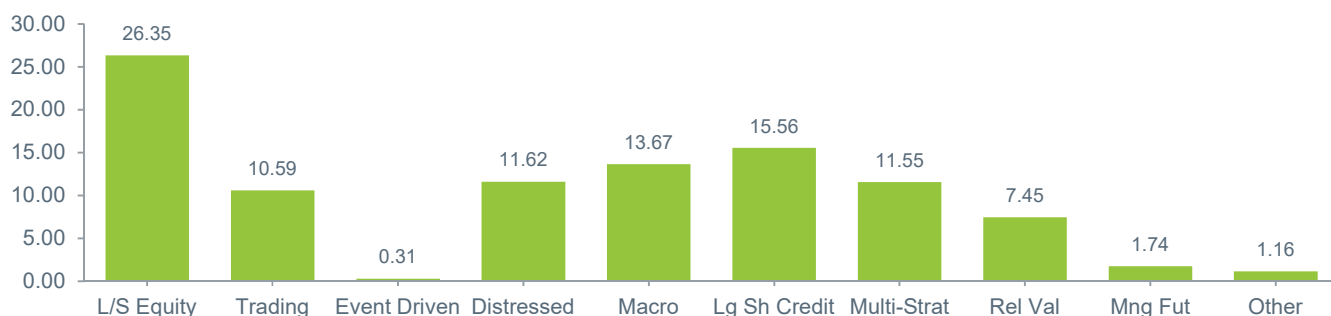
Firm Statistics

Year Firm Established	1990
Firm AUM (\$M)	\$77,403
Percentage Employee Owned	47.00%

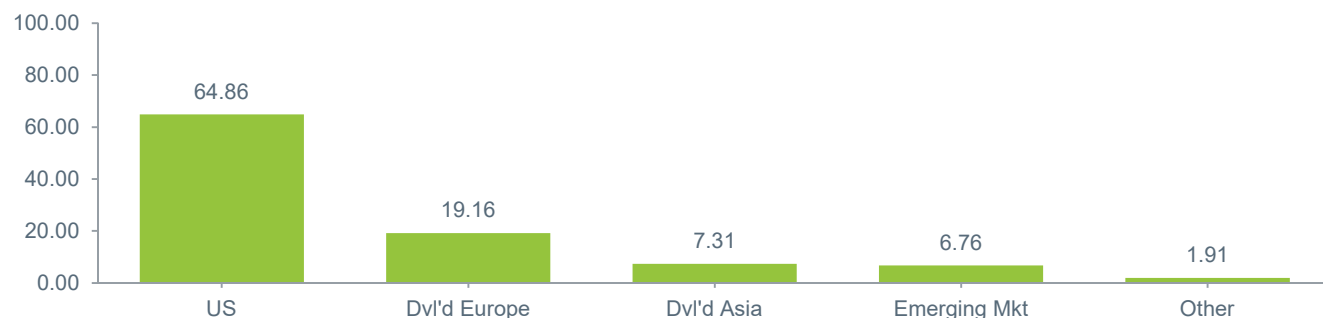
Fund Statistics

Fund Inception	2017
Fund Size (\$M)	\$695
Number of Underlying Managers	44
Maximum Weighting of an Underlying Manager	5.50%
Current Leverage (Assets/Equity)	3.8
Annual Manager Turnover	N/A
Annual Management Fee %	0.6
Performance Fee %	12
Hurdle %	4.4
Initial Lock-Up Period	No
Redemption Frequency	Daily
Notification Period	60 Days

Strategy Allocation (%)



Geographic Allocation (%)

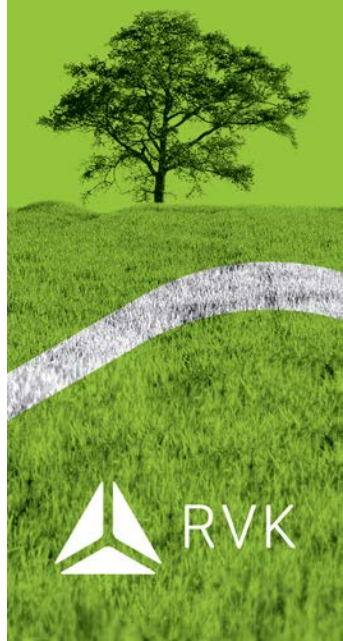


Strategy Allocation to "Other" includes cash, hedging, and other expenses. Geographic Allocation to "Other" consists of Canada. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end.

While California Govt. Code sec. 7514.7 requires certain fund information be disclosed to the public, sec. 6254.26(a) exempts from public disclosure certain contract terms, such as management fees expressed as a percentage, unless the fund manager consents to release such information. In this case, BlackStone has consented to release this information to the public.

Allocation by Strategy		
Strategy	Allocation (%)	
<hr/>		
Equities	29.6	
Equity Manager 1	3.4	
Equity Manager 2	2.7	
Equity Manager 3	2.6	
Equity Manager 4	4.5	
Equity Manager 5	3.3	
Equity Manager 6	3.4	
Equity Manager 7	2.6	
Equity Manager 8	2.5	
Equity Manager 9	2.2	
Equity Manager 10	1.1	
Equity Manager 11	0.8	
Equity Manager 12	0.5	
Credit	41.7	
Credit Manager 1	4.5	
Credit Manager 2	2.0	
Credit Manager 3	2.6	
Credit Manager 4	5.4	
Credit Manager 5	3.4	
Credit Manager 6	2.9	
Credit Manager 7	5.6	
Credit Manager 8	3.7	
Credit Manager 9	3.7	
Credit Manager 10	3.6	
Credit Manager 11	4.4	
Multi-Strategies	7.4	
Multi-Strategies Manager 1	5.2	
Multi-Strategies Manager 2	2.2	
Macro	13.9	
Macro Manager 1	13.8	
Macro Manager 2	0.1	
Special Situations	5.8	
Special Situations Manager 1	3.1	
Special Situations Manager 2	2.7	
Cash and Other	1.6	
<hr/>		
Turnover		
<hr/>		
Strategy	New	Terms/Trans
<hr/>		
Equities	6	1
Credit	4	0
Multi-Strategies	0	0
Macro	0	0
Event Driven/Opportunistic	1	2
Special Situations	2	0
Cash and Other	0	0
<hr/>		
Total Turnover	13	3

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 September 30, 2018

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

Please see the Addendum for custom index definitions.

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

As of September 30, 2018

Time Period	Asset Class	Target	Change	Policy Benchmarks
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
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

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

As of September 30, 2018

Time Period	Asset Class	Target	Change	Policy Benchmarks
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
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.
	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 September 30, 2018

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 September 30, 2018

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 September 30, 2018

Manager	Mandate	Funded	Terminated
2018			
Torchlight Debt Opp VI	Real Estate	1Q 2018	
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	

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

As of September 30, 2018

Manager	Mandate	Funded	Terminated
2013			
GAM	Hedge Fund	4Q 2013	2Q 2018
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	
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 September 30, 2018

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
Relative Value	
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.
Event Driven	
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.
Opportunistic	
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% ICE BofAML 3 Mo US T-Bill Index+3%, 6% NCREIF Property Index+0.5% (Lagged-1 Qtr), 5% Russell 3000+3% (Blended), and 1% ICE BofAML 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 ICE BofAML 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% ICE BofAML 3 Mo US T-Bill Index+3%, 6% NCREIF Property Index+0.5% (Lagged-1 Qtr), 5% Russell 3000+3% (Blended), and 1% ICE BofAML 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 Return - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark.

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&P</u>	<u>Moody's</u>	<u>Explanation</u>	<u>S&P</u>	<u>Moody's</u>	<u>Explanation</u>
Higher Credit Quality – Investment Grade			Lower Credit Quality – Below Investment Grade		
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., 1st quartile, 2nd quartile, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd 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.



Glossary

- 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.
- 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., ICE BofAML 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 performance compiled from consultant and custodian 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.

Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 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 4th 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 - ICE BofAML 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., ICE BofAML 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., ICE BofAML 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.

PORTLAND

CHICAGO

NEW YORK

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