



Investment Performance Analysis

Santa Barbara County Employees' Retirement System

Period Ended: September 30, 2017



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Capital Markets Review

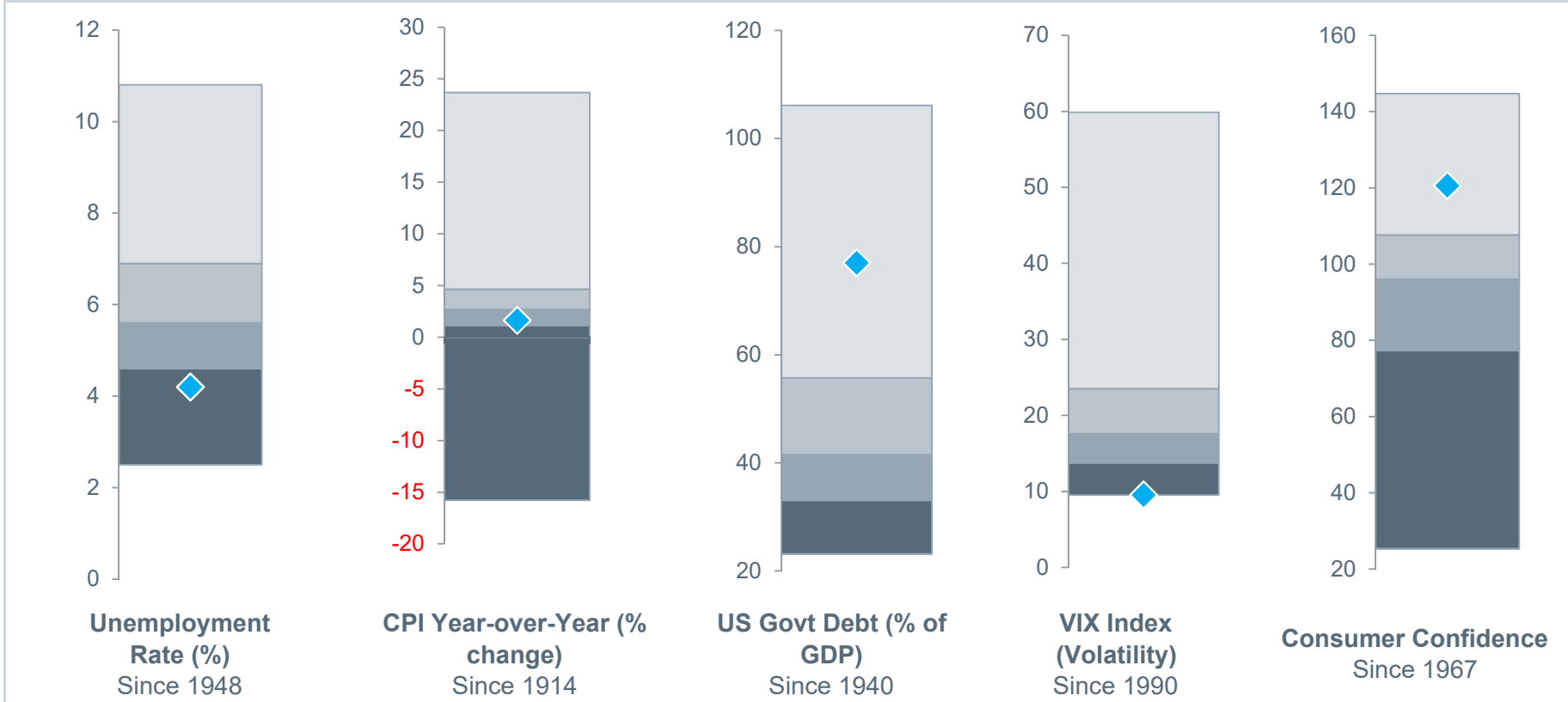


Third Quarter Economic Environment

Key Economic Indicators

Expectations for continued global growth, as well as US fiscal policy stimulus, were again cited as the primary factors driving equity markets to record levels. Oil markets also traded higher during the period, albeit within recent ranges, with WTI crude reaching \$52 per barrel. While no material price action occurred on the announcement, market participants noted Standard & Poor’s downgrade of China from AA to A+, suggesting deterioration of economic fundamentals for the world’s second largest economy could be a risk to global growth going forward. Global monetary policy was also in focus, with the FOMC announcing its intent to start its balance sheet normalization strategy in October. The announcement elicited limited price action, as market participants suggested the policy change was well telegraphed through speeches by policy makers and FOMC meeting minutes. Finally, US interest rates reached 2017 lows for key maturities before rising late in the period on a renewed sense of optimism regarding the economic growth outlook.

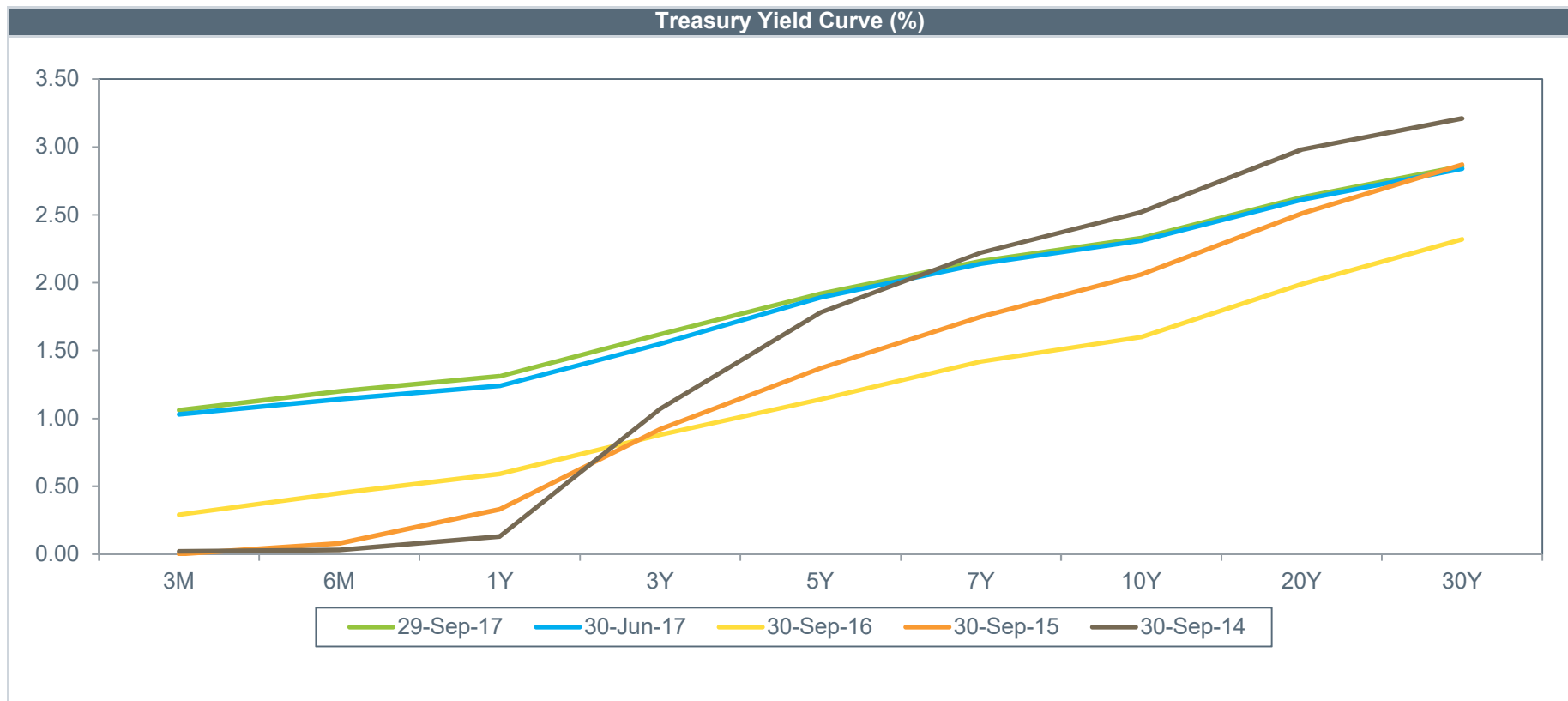
Key Economic Indicators



Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as N/A.



Economic Indicators	Sep-17	Jun-17	Sep-16	Sep-14	20 Yr	Mkt Perf (%)	QTD	1 Yr	5 Yr	10 Yr
Federal Funds Rate (%)	1.06	1.06	0.29	0.07	2.18	S&P 500 (Cap Wtd)	4.48	18.61	14.22	7.44
Breakeven Infl. - 1 Yr (%)	1.24 ▲	0.7	1.0	-0.2	N/A	Russell 2000	5.67	20.74	13.79	7.85
Breakeven Infl. - 10 Yr (%)	1.85 ▲	1.7	1.6	2.0	N/A	MSCI EAFE (Net)	5.40	19.10	8.38	1.34
CPI YoY (Headline) (%)	2.2 ▲	1.6	1.5	1.7	2.1	MSCI EAFE SC (Net)	7.46	21.84	12.85	4.63
Unemployment Rate (%)	4.2 ▼	4.4	4.9	5.9	5.9	MSCI Emg Mkts (Net)	7.89	22.46	3.99	1.32
Real GDP YoY (%)	2.3 ▲	2.2	1.5	3.2	2.3	Bbrg US Agg Bond	0.85	0.07	2.06	4.27
PMI - Manufacturing	60.8 ▲	57.8	51.7	55.9	52.3	BofA ML 3 Mo US T-Bill	0.27	0.65	0.22	0.47
USD Total Wtd Idx	88.1 ▼	90.5	89.9	81.1	86.8	NCREIF ODCE (Gross)	1.87	7.66	11.59	5.03
WTI Crude Oil per Barrel (\$)	51.7 ▲	46.0	48.2	91.2	57.1	Wilshire US REIT	0.61	0.10	9.51	5.55
Gold Spot per Oz (\$)	1,280 ▲	1,242	1,316	1,208	818	HFRI FOF Comp	2.31	6.51	3.85	1.07
						Bbrg Cmdty (TR)	2.52	-0.29	-10.47	-6.83



Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. Breakeven Inflation does not have 20 years of history; therefore, its 20-year average is shown as N/A.



Third Quarter Review

Broad Market

Domestic equity markets were driven to record levels during the quarter. Fiscal stimulus, along with expectations for continued global growth, were cited as primary factors for US equity appreciation.

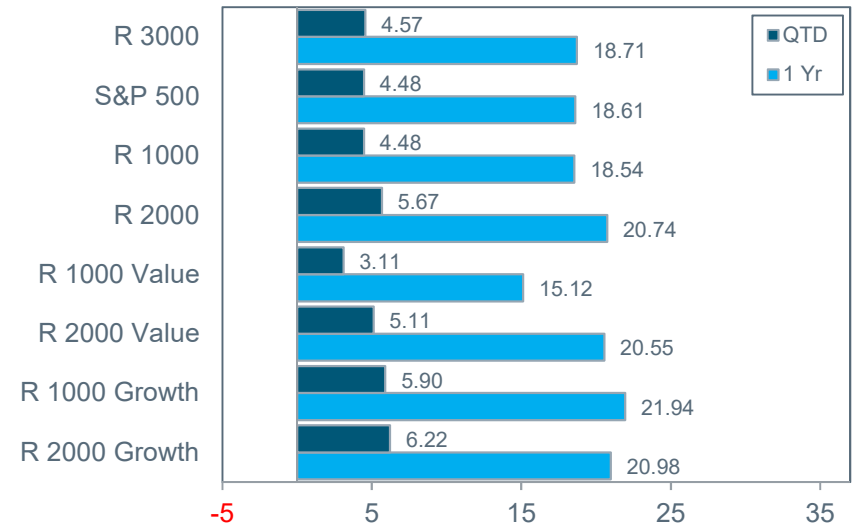
Market Cap

US small cap stocks outperformed large cap stocks, with the Russell 2000 index returning 5.7% versus the Russell 1000 index return of 4.5%.

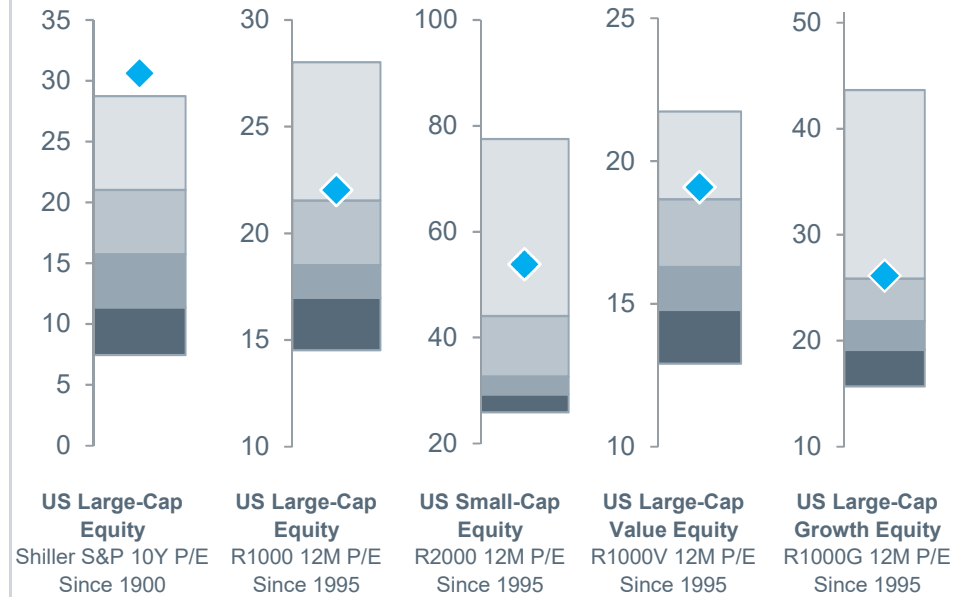
Style and Sector

Growth stocks continued to outperform value across all market caps. Within the large cap growth segment, information technology, health care, and financial stocks outperformed other sectors over the period. Managers targeting these sectors generally benefited from the exposure, but delivered mixed results relative to their respective indices.

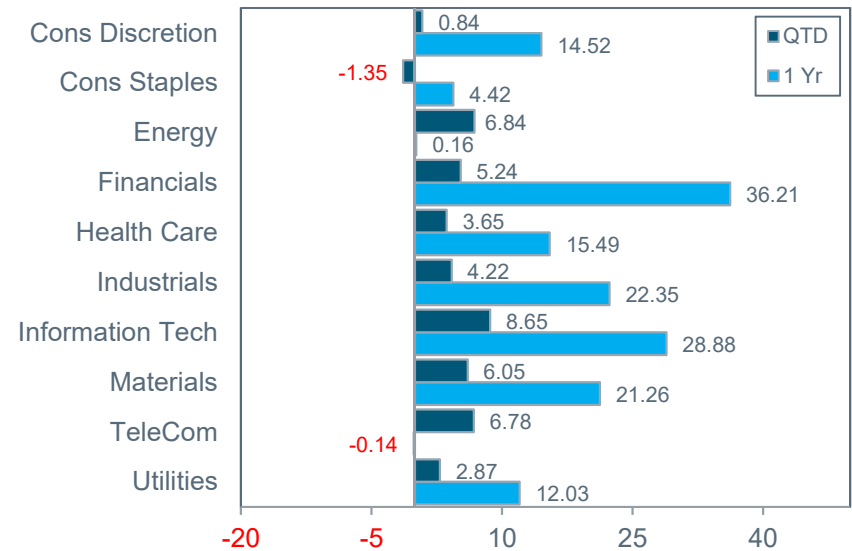
Style and Capitalization Market Performance (%)



Valuations



S&P 500 Index Sector Performance (%)



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



Third Quarter Review

Broad Market

Expectations for continued global growth and US fiscal policy stimulus were positive drivers to international equity markets, as the MSCI ACWI Ex US index rose approximately 6.2%.

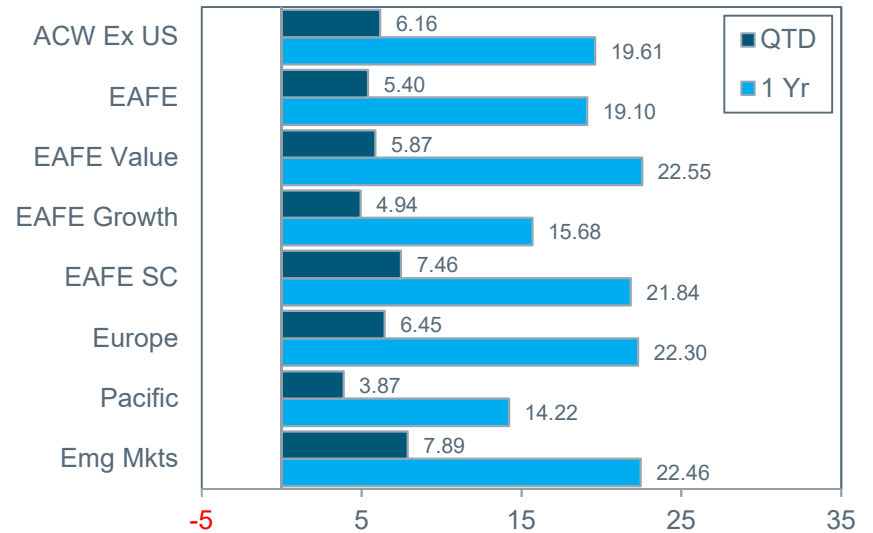
Region

European market returns heavily influenced broad international market exposure, as ECB policy makers scaled back expectations for the removal of accommodative monetary policy.

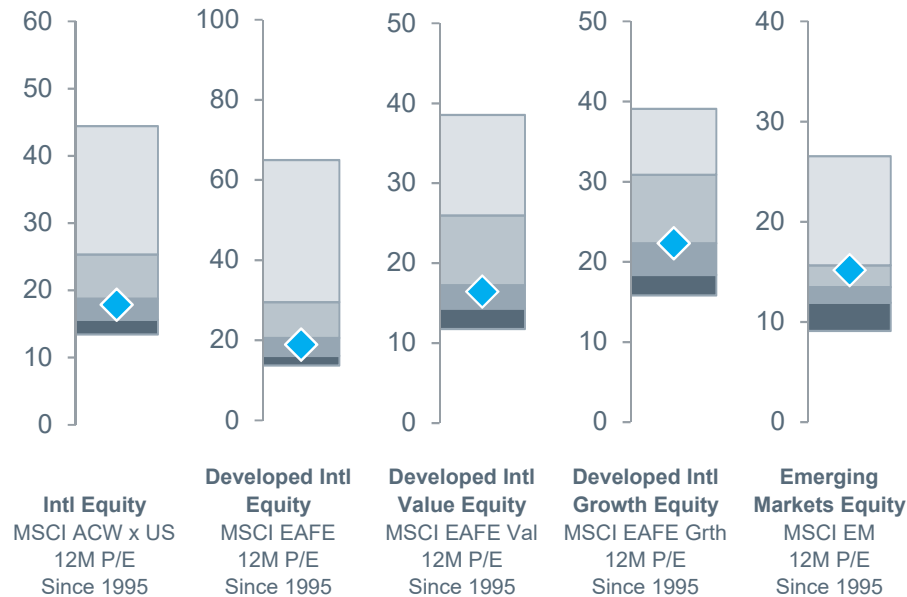
Market Cap & Style

Developed international stocks performed well on an absolute and relative basis when compared to their domestic counterparts, but trailed relative to emerging markets. Value stocks outperformed growth in developed markets while underperforming in emerging markets, however performance varied across market cap. Small cap continued to outperform large cap in developed markets, while large cap outperformed small cap in emerging markets.

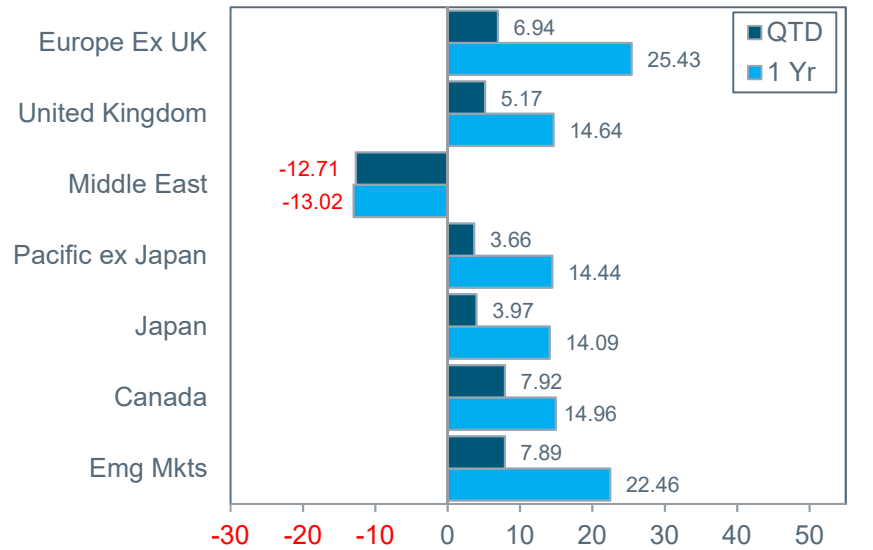
MSCI Style and Capitalization Market Performance (%)



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 yield curve flattened materially during the period on the increased likelihood of further rate hikes by the FOMC amidst a general lack of confidence in long-run economic growth prospects. Still, the Bloomberg Barclays US Aggregate Bond index returned 0.8% in Q3, as a slight increase in yields was not enough to keep bonds from posting a positive return.

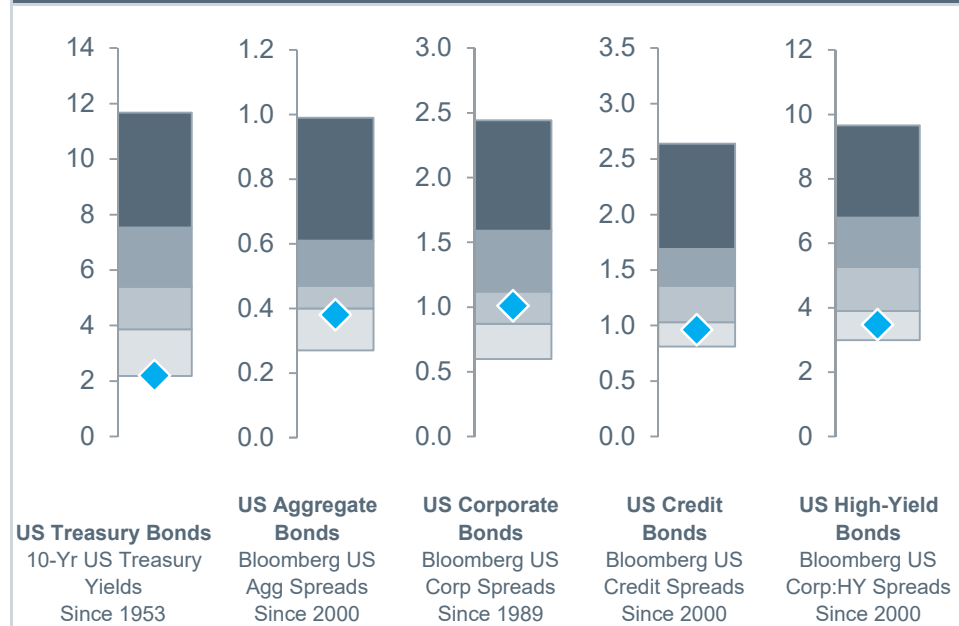
Credit Market

High yield credit spreads reached a three-year low while investment grade credit spreads matched its lowest point since 2007.

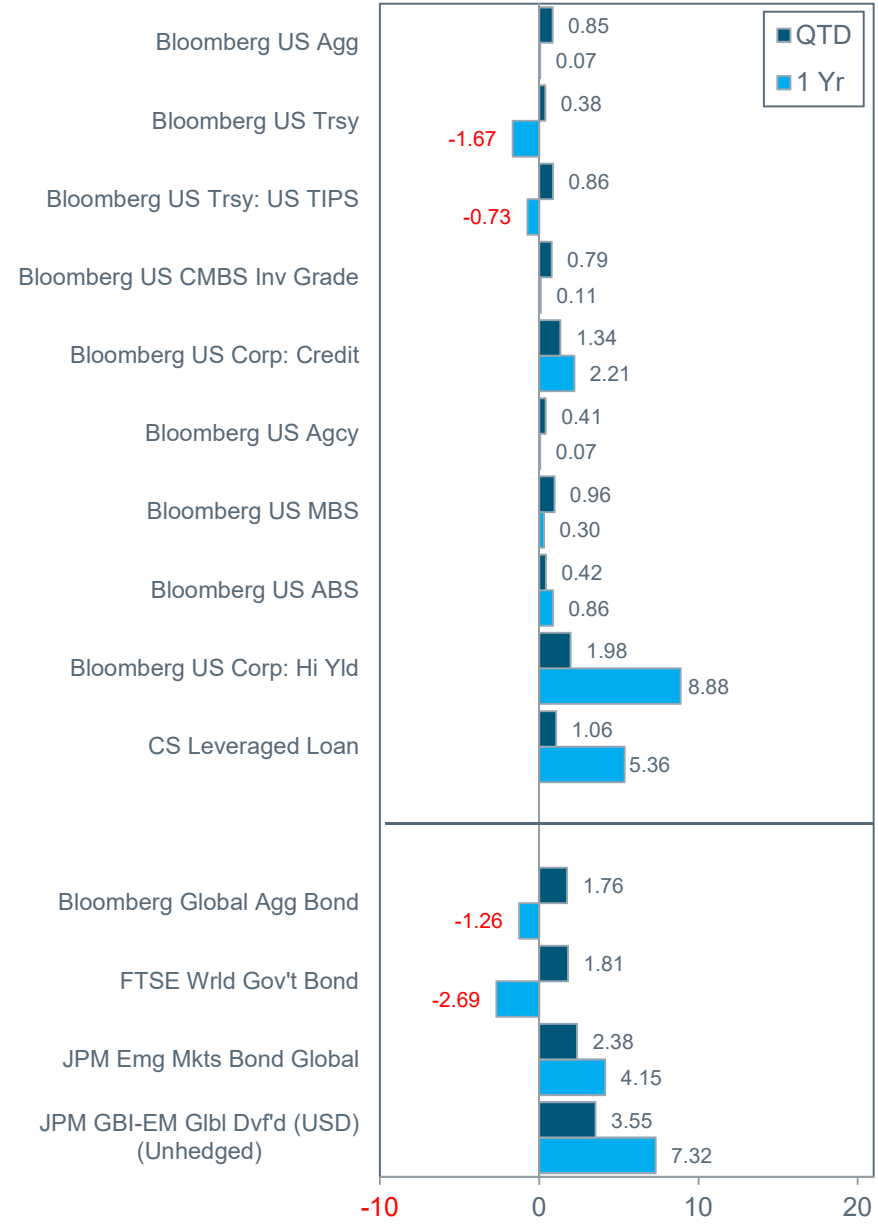
International

Local currency emerging market debt continues to post strong performance as the JPMorgan GBI-EM Global Diversified index returned 3.6% for the quarter. It has been one of the strongest performing asset classes on a year-to-date basis, with a return of 14.3%.

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 largely provided positive performance, with fundamental and event-driven strategies leading while macro oriented managers continued to struggle. Multi-Strategy manager returns were generally positive during the quarter, but have experienced wide dispersion year-to-date. The best performing broad hedge fund category for both the quarter and year-to-date has been traditional Equity Long-Short (ELS).

General Market - Global Tactical Asset Allocation (GTAA)

Performance for GTAA Managers continued to build on a strong year for most strategies. Quarterly returns varied widely given a diverse group of managers, but most core GTAA allocation managers outperformed a static US 60/40 portfolio both during the quarter, and also year-to-date. Generally, those that ranked among the top of peers tended to rely on value oriented investment processes that have resulted in significant equity, fixed income and currency exposure within emerging markets.

Third Quarter Review - Real Assets

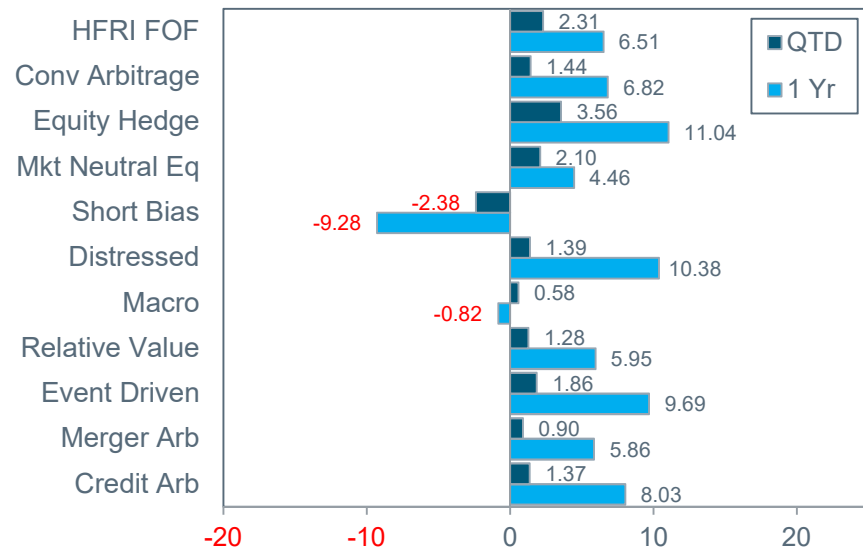
General Market - Diversified Inflation Strategies (DIS)

Diversified Inflation Strategies (“DIS”) performed relatively well, with some even outperforming a static US 60/40 portfolio despite a low-inflation environment. This occurred in a quarter where inflation levels remained low, but rose from 1.6% in June, to 2.2% based on the most recently available headline CPI release in September.

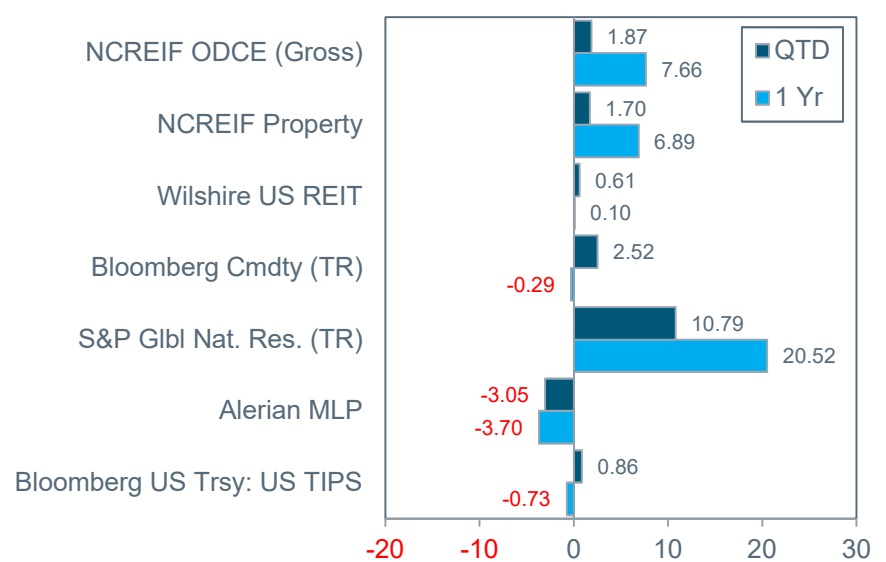
General Market - Real Estate

Real estate valuations remain healthy, supported by continuing strength in the overall economy. The core private real estate index, NCREIF-ODCE returned 1.9%, on a preliminary basis, during Q3, comprised of 1.1% income and 0.8% appreciation. Market participants characterized this as another quarter of normalizing returns reinforcing investor expectations of lower returns going forward as the market enters the later stages of the recovery. Investors in publicly traded real estate trailed their private market counterparts during the quarter as measured by FTSE/NAREIT All REIT’s index return of 1.2%.

HFRI Hedge Fund Performance (%)



Real Asset Performance (%)



Annual Asset Class Performance

As of September 30, 2017

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	YTD
Best	61.34	33.16	34.00	35.97	39.38	8.44	78.51	28.60	22.49	20.00	38.82	31.78	15.02	21.31	27.78
	55.81	31.45	26.19	32.18	16.23	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	25.42
	47.25	25.55	21.39	26.34	15.97	2.06	46.78	22.04	13.56	17.59	29.30	13.69	4.23	11.96	19.96
	38.59	20.25	21.36	19.31	11.63	-2.35	31.78	18.88	9.24	17.32	22.78	12.50	1.38	11.74	14.24
	36.18	18.33	13.82	18.37	11.17	-10.01	28.60	16.83	7.84	16.35	13.94	5.97	0.55	11.19	10.94
	28.96	13.06	13.54	16.32	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	7.65
	28.68	11.14	7.49	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	7.24	7.00
	23.93	10.88	5.34	11.86	6.60	-33.79	18.91	15.06	0.10	10.94	1.86	3.37	-0.31	6.67	5.60
	11.61	9.15	4.91	10.39	5.49	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	5.43
	9.28	8.56	4.55	4.85	5.00	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	3.14
	8.39	8.46	3.07	4.34	1.87	-39.20	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	2.44
	5.88	6.86	2.84	2.72	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	1.72
	4.11	4.34	2.74	2.07	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	0.57
Worst	1.15	1.33	2.43	0.49	-17.55	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	-2.87
	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	Bloomberg US Agg Bond - FI	Bloomberg US Corp: Hi Yield - FI	Bloomberg US Trsy: US TIPS - FI	Bloomberg US Gov/Credit: Lng - FI	NCREIF ODCE (Gross) - Real Estate	Wilshire US REIT - REITs	HFRI FOF Comp Index - ARS	Bloomberg Cmnty (TR) - Commod.	BofA ML 3 Mo T-Bill - Cash Equiv	

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



Total Fund



Q3 2017 Executive Summary

Total Fund Summary

The Total Fund market value was \$2.86 billion as of September 30, 2017, an increase of approximately \$84.3 million from the previous quarter. The Total Fund returned 3.34% for the third quarter, net of fees, and ranked in the 76th percentile among the Public Plans \$1B-\$5B peer group, gross of fees. The Total Fund outperformed the Policy Benchmark by 17 basis points, but underperformed the Dynamic Policy Benchmark by 29 basis points.

All asset classes, with the exception of Non-Core Fixed Income, were within their respective target ranges as of September 30, 2017.

Contributors to Total Fund Performance

Emerging Market Equity, Developed Market Non-U.S. Equity, and Private Equity had the highest absolute performance, returning 6.20%, 5.19%, and 4.63%, respectively.

Performance versus the Policy Benchmark was aided by Real Estate and Private Equity strong relative performance, which beat their benchmarks by 198 and 85 basis points, respectively. Overweight positions to public equity asset classes, relative to the target allocation, also contributed to performance.

Performance versus the Dynamic Policy Benchmark was positively impacted by individual manager/program outperformance, including ORG Real Estate, Dimensional U.S. Small Cap Value, and Stone Harbor Emerging Market Debt, which beat their benchmarks by 226, 104, and 69 basis points, respectively.

Detractors from Total Fund Performance

Core Fixed Income, Real Return, and Non-Core Fixed Income had the lowest absolute performance, returning 0.78%, 1.68%, and 1.94%, respectively.

Performance versus the Policy Benchmark was hurt by Emerging Market Equity, U.S. Equity, and Developed Market Non-U.S. Equity's weak relative performance, which lagged their benchmarks by 169, 34, and 21 basis points, respectively. An underweight to Non-Core Fixed Income, relative to the target allocation, also detracted from performance.

Performance versus the Dynamic Policy Benchmark was negatively impacted by individual manager/program underperformance, including Private Natural Resources, RHJ Small Cap Opportunities, and First Eagle International Value Equity which lagged their benchmarks by 282, 269, and 269 basis points, respectively.

Santa Barbara County Employees' Retirement System
 Manager Monitoring

As of September 30, 2017

	Significant Events (Yes/No)	Last Meeting with Board of Retirement	Last Meeting with RVK	Last RVK On-Site at Manager Office	Comments
U.S. Equity					
RhumbLine HEDI	Yes		September 2017	August 2017	Alex Ryer assuming CIO position at year end
SSgA Russell 1000 Index - NL	Yes		September 2017	June 2017	Retirement of Jay Hooley, CEO
Dimensional U.S. Small Cap Value	Yes	January 2016	November 2017	March 2017	Departure of Eduardo Repetto, co-CEO/CIO
RHJ Small Cap Opportunities	No	April 2016	August 2015		
Developed Market Non-U.S. Equity					
First Eagle International Value Equity	Yes		June 2017	October 2014	Acquisition of NewStar Financial
PanAgora Dynamic International Equity	No		October 2017	August 2015	
SSgA MSCI World (ex. U.S.) Index - NL	Yes	October 2011	September 2017	June 2017	Retirement of Jay Hooley, CEO
Artisan Non-U.S. Growth	No		June 2017		
Copper Rock International Small Cap	No		November 2017	November 2017	
Emerging Market Equity					
DFA Emg Mkts Value;I (DFEVX)	Yes		November 2017	March 2017	Departure of Eduardo Repetto, co-CEO/CIO
RBC Emerging Markets Equity	No	June 2016	March 2017	October 2015	
Core Fixed Income					
BlackRock Intermediate Duration	No		November 2017	September 2017	
Garcia Hamilton Core Fixed Income	No	June 2017	June 2017	June 2016	
Guggenheim Core Plus Fixed Income	Yes	June 2017	November 2017	November 2017	SEC Examination
Non-Core Fixed Income					
Stone Harbor Emerging Market Debt Blend	No		December 2017	April 2016	
Hotchkis & Wiley High Yield	No		May 2017	July 2016	
Beach Point Leveraged Loan	No		September 2017	May 2016	
Real Return					
BlackRock TIPS	No		November 2017	September 2017	
Cohen & Steers Real Assets Fund	No	July 2017	July 2017	October 2015	
Nuveen Real Asset Income Fund	No	July 2017	July 2017	August 2014	
Private Natural Resources	No		November 2017	September 2015	
Private Infrastructure	No		November 2017	September 2015	
Private Equity					
Hamilton Lane	No	August 2017	November 2017	September 2015	
Real Estate					
ORG	No	August 2017			

INVESTMENT MANAGER UPDATES

Guggenheim Core Plus Fixed Income (SA)

Guggenheim has received extensive media coverage over the last few months regarding alleged management turmoil and rumors of dissent in the firm's investment management division. In response to these news stories, RVK conducted onsite due diligence visits on August 3, and October 3, 2017, as well as several calls to gain further clarity. In the process of completing this due diligence it was uncovered that Guggenheim received a deficiency letter from an SEC exam which it did not disclose during the better part of our review process. RVK recently conducted an additional onsite due diligence under a Guggenheim NDA that allowed RVK to read the SEC deficiency letter on their premises. An updated memo will be provided with information regarding the deficiency letter that is not restricted by the NDA.

Opinion: While there have been no significant changes to the investment team, philosophy, or process, in light of recent events and the potential risk of internal issues worsening, RVK recommends placing the manager on watch.

Dimensional U.S. Small Cap Value (CF) and DFA Emg Mkts Value;I (DFEVX)

In August 2017, DFA announced that Eduardo Repetto, co-CEO and co-CIO, will be departing the firm in September 2017. Mr. Repetto has been at the firm since 2000 and has held these dual roles since 2010. Current co-CIO Gerard O'Reilly will assume the title of CIO and will also become co-CEO alongside Dave Butler. Mr. O'Reilly has been co-CIO since 2014 and has been at the firm since 2004. Mr. Butler joined the firm in 1995 was named co-CEO in February 2017 after David Booth, a co-founder of the firm, moved into the executive chairman role. The short-term impact of this change is mitigated by the firm's use of a systematic investment process and the remaining depth of the investment team which consists of over 70 investment professionals and traders.

Opinion: No concerns with this departure. At this time no action is being recommended.

First Eagle International Value Equity (SA)

In October 2017, First Eagle announced they had entered into a definitive agreement to acquire NewStar Financial, Inc. (NASDAQ: NEWS) ("NewStar"), an established lender and investment manager specializing in direct lending to middle market companies and management of broadly syndicated loan portfolios. Following completion of the transaction, First Eagle intends to offer these proven credit strategies to institutional and retail investors.

Opinion: This acquisition should have no impact on the equity strategies offered by the firm. At this time no action is being recommended.

RhumbLine HEDI (SA)

In May 2016, Rhumbline hired Alex Ryer as Director of Investments in anticipation of the eventual retirement of CIO Norman Meltz. In April 2017, Mr. Ryer was named co-CIO and it was announced that Mr. Meltz would be retiring at the end of 2017. Mr. Ryer will be assuming the role of sole CIO at year-end and has been increasing his responsibilities throughout 2017. Mr. Ryer has previous experience as a quantitative investor at BlackRock and SSgA prior to joining Rhumbline. The firm has been transparent and messaging has been consistent throughout this transition.

Opinion: No concerns with this pre-announced transition. At this time no action is being recommended.

SSgA Russell 1000 Index - NL (CF) and SSgA MSCI World (ex. U.S.) Index - NL (CF)

In November 2017, State Street Corporation announced that its president, Jay Hooley will retire at the end of 2018. The current CEO of State Street Global Advisors (SSGA), Ron O'Hanley, will succeed Mr. Hooley as CEO of State Street Corporation at that time. SSGA is a subsidiary of State Street Corporation. Mr. O'Hanley will be named president and COO of State Street Corporation in the interim to help facilitate the transition. Cyrus Taraporevala succeeds Mr. O'Hanley as president and CEO of SSGA. RVK views this as a thoughtful and relatively long term transition.

Opinion: No concerns with this departure. At this time no action is being recommended.

		Test 1: If the Manager's rolling, five-year return (net of fees) falls below the rolling, five-year benchmark return for three (3) consecutive quarters.				Test 2: If the Manager's rolling, five-year return (net of fees) for three (3) consecutive quarters ranks in the bottom third of the General Consultant's peer group universe.							
Asset Class	Investment Manager	Inception Date	✓ indicates failed test			Watch List Status	✓ indicates failed test			Watch List Status	Qualitative Factor(s) Resulting in Watch List Addition	Benchmark	Peer Group
			2017 Q1	2017 Q2	2017 Q3		2017 Q1	2017 Q2	2017 Q3				
U.S. Equity	Dimensional U.S. Small Cap Value (CF)	4/1/2005									Russell 2000 Value Index	U.S. Small Cap Value Equity	
	RHJ Small Cap Opportunities (SA)	6/1/2016				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	Russell 2000 Growth Index	U.S. Small Cap Growth Equity	
Developed Market non-U.S. Equity	First Eagle International Value Equity (SA)	6/1/2014				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	MSCI EAFE Index (USD) (Net)	EAFE Core	
	PanAgora Dynamic International Equity (SA)	5/1/2009									MSCI EAFE Index (USD) (Net)	EAFE Core	
	Artisan Non-U.S. Growth (SA)	2/1/2014				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	MSCI EAFE Index (USD) (Net)	EAFE Growth	
	Copper Rock International Small Cap (CF)	3/1/2013				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	MSCI EAFE Sm Cap Index (USD) (Net)	International SMID Cap Core Equity	
Emerging Markets Equity	DFA Emg Mkts Value;I (DFEVX)	5/1/2013				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	MSCI Emg Mkts Index (USD) (Net)	Emerging Markets Equity	
	RBC Emerging Markets Equity (CF)	9/1/2016				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	MSCI Emg Mkts Index (USD) (Net)	Emerging Markets Equity	

		Test 1: If the Manager's rolling, five-year return (net of fees) falls below the rolling, five-year benchmark return for three (3) consecutive quarters.			Test 2: If the Manager's rolling, five-year return (net of fees) for three (3) consecutive quarters ranks in the bottom third of the General Consultant's peer group universe.								
Asset Class	Investment Manager	Inception Date	✓ indicates failed test			Watch List Status	✓ indicates failed test			Watch List Status	Qualitative Factor(s) Resulting in Watch List Addition	Benchmark	Peer Group
			2017 Q1	2017 Q2	2017 Q3		2017 Q1	2017 Q2	2017 Q3				
Core Fixed Income	Garcia Hamilton Core Fixed Income (SA)	7/1/2017				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)		Bloomberg US Agg Bond Index	U.S. Broad Market Core Fixed Income
	Guggenheim Core Plus Fixed Income (SA)	7/1/2017				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)	On Watch*	Bloomberg US Agg Bond Index	U.S. Broad Market Core+ Fixed Income
Non-Core Fixed Income	Stone Harbor Emerging Market Debt Blend	8/1/2012				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)		Stone Harbor Blended Benchmark	Emerging Markets Debt
	Hotchkis & Wiley High Yield (SA)	12/1/2013				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)		Bloomberg US Corp: Hi Yld Index	U.S. High Yield Bonds
	Beach Point Leveraged Loan (CF)	10/1/2012				N/A (Insufficient Performance History)				N/A (Insufficient Performance History)		CS Lvg'd Loan Index	U.S. Bank Loans
Real Return	Cohen & Steers Real Assets Fund (CIT)	7/1/2017				N/A (Insufficient Performance History)				N/A (No Comparable Universe)		C&S Real Assets Blended Benchmark	N/A
	Nuveen Real Asset Income Fund (SA)	7/1/2017				N/A (Insufficient Performance History)				N/A (No Comparable Universe)		Nuveen Real Assets Blended Benchmark	N/A

*Guggenheim has received extensive media coverage over the last few months regarding alleged management turmoil and rumors of dissension in the firm's investment management division. In response to these news stories, RVK conducted onsite due diligence visits on August 3, and October 3, 2017, as well as several calls to gain further clarity. In the process of completing this due diligence it was uncovered that Guggenheim received a deficiency letter from an SEC exam which it did not disclose during the better part of our review process. RVK recently conducted an additional onsite due diligence under a Guggenheim NDA that allowed RVK to read the SEC deficiency letter on their premises. An updated memo will be provided with information regarding the deficiency letter that is not restricted by the NDA. While there have been no significant changes to the investment team, philosophy, or process, in light of recent events and the potential risk of internal issues worsening, RVK recommends placing the manager "On Watch."

Santa Barbara County Employees' Retirement System
 Asset Allocation, Performance & Schedule of Investable Assets

As of September 30, 2017

	Allocation		Performance (%)		Allocation		Performance (%)
	Market Value (\$)	%	QTD		Market Value (\$)	%	QTD
Total Fund Composite	2,863,526,795	100.00	3.34	Non-Core Fixed Income Composite	190,585,697	6.66	1.94
U.S. Equity Composite	625,262,083	21.84	4.23	Stone Harbor Emerging Market Debt Blend (CIT)	72,502,755	2.53	3.73
RhumbLine HEDI (SA)	253,182,106	8.84	3.77	Hotchkis & Wiley High Yield (SA)	69,923,142	2.44	1.02
SSgA Russell 1000 Index - NL (CF)	316,586,835	11.06	4.46	Beach Point Leveraged Loan (CF)	48,159,762	1.68	0.66
Dimensional U.S. Small Cap Value (CF)	30,064,393	1.05	6.15	Real Return Composite	466,093,969	16.28	1.68
RHJ Small Cap Opportunities (SA)	25,419,776	0.89	3.53	BlackRock TIPS (CF)	102,085,387	3.57	0.86
Developed Market Non-U.S. Equity Composite	387,840,042	13.54	5.19	Cohen & Steers Real Assets Fund (CIT)	153,611,474	5.36	N/A
First Eagle International Value Equity (SA)	91,017,180	3.18	2.71	Nuveen Real Asset Income Fund (SA)	153,521,155	5.36	N/A
PanAgora Dynamic International Equity (SA)	86,172,461	3.01	5.32	Natural Resources Private Composite	14,143,316	0.49	-1.36
SSgA MSCI World (ex. U.S.) Index - NL (CF)	49,533,410	1.73	5.69	Infrastructure Private Composite	42,732,517	1.49	-0.16
Artisan Non-U.S. Growth (SA)	105,806,741	3.69	5.84	Private Equity Composite	233,802,716	8.16	4.63
Copper Rock International Small Cap (CF)	55,307,413	1.93	7.49	Real Estate Composite	246,165,381	8.60	3.45
Emerging Market Equity Composite	252,932,697	8.83	6.20	ORG Real Estate	224,868,359	7.85	3.73
DFA Emg Mkts Value;I (DFEVX)	128,462,073	4.49	5.56	Harrison Street REIT (SA)	21,297,022	0.74	0.45
RBC Emerging Markets Equity (CF)	124,470,624	4.35	6.87	Transition Account	61,801	0.00	N/A
Core Fixed Income Composite	445,065,962	15.54	0.78	Cash Composite	15,716,447	0.55	N/A
BlackRock Intermediate Duration (CF)	46,025,462	1.61	0.34				
Garcia Hamilton Core Fixed Income (SA)	219,944,513	7.68	N/A				
Guggenheim Core Plus Fixed Income (SA)	179,086,625	6.25	N/A				

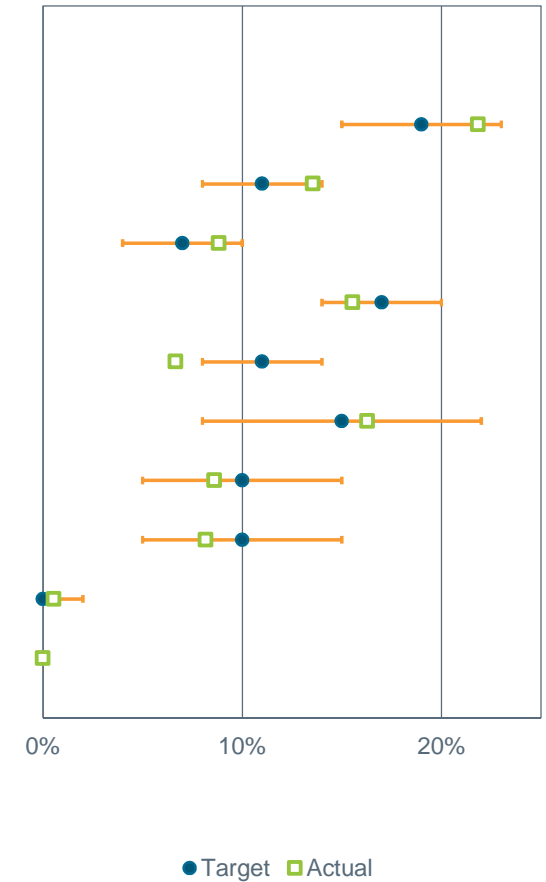
Schedule of Investable Assets ex Treasury Cash

Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value
FYTD	2,777,587,606	-11,055,692	92,656,333	2,859,188,247	3.34	103.34

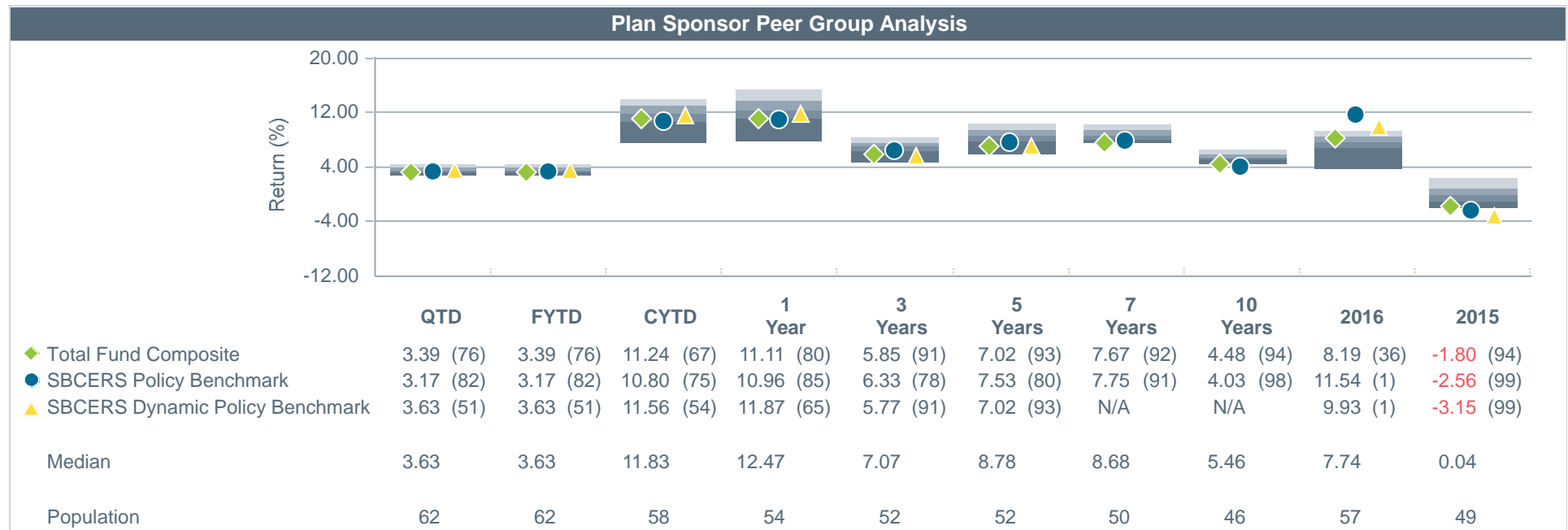
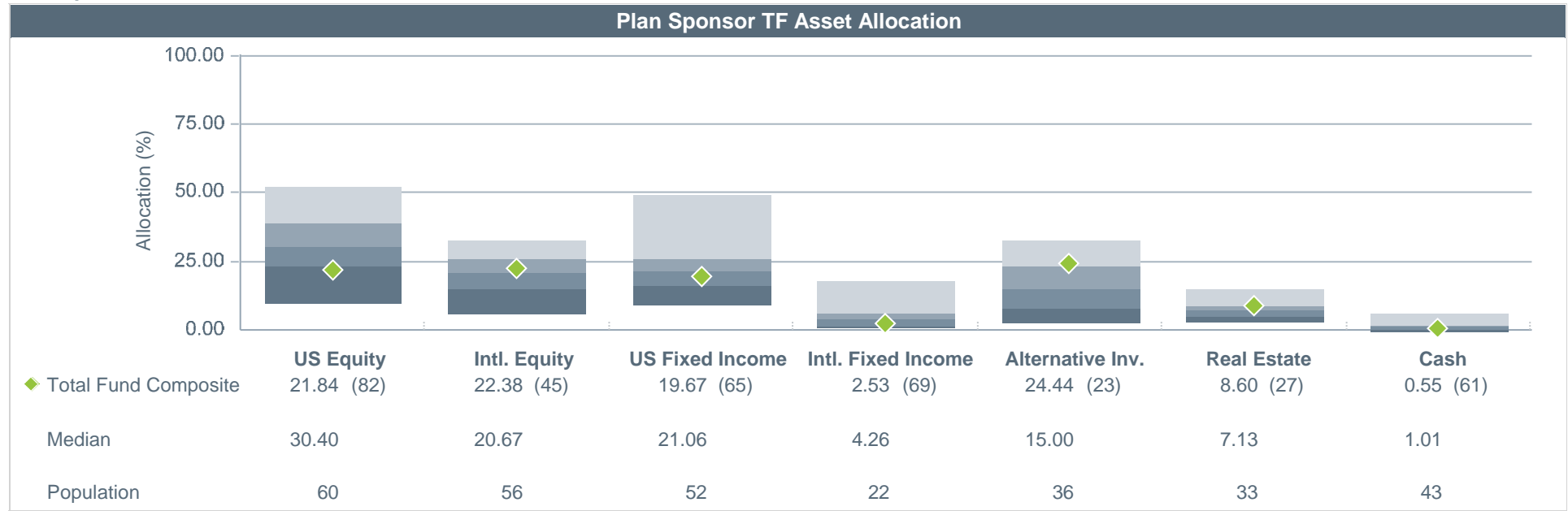
Performance shown is net of fees and provided by BNY Mellon. Allocations shown may not sum up to 100% exactly due to rounding. Total Fund performance excludes Treasury Cash. The fiscal year ends June 30th. During August, Schroder STW Core Fixed Income (SA), Reams Core Plus Fixed Income (SA), BlackRock Foreign Bond Index (CF), Brandywine International Fixed Income (CF), BlackRock Dow Jones UBS Commodities Index (CF), SSgA Global Natural Resources Stock Index (CF), and RARE Infrastructure Global Value (CF) were liquidated. Garcia Hamilton Core Fixed Income (SA), Guggenheim Core Plus Fixed Income (SA), Cohen & Steers Real Assets Fund (CIT), and Nuveen Real Asset Income Fund (SA) were funded with the proceeds. During September, Mount Lucas Commodity Long/Neutral (CF) was liquidated and the proceeds were transferred to Cohen & Steers Real Assets Fund (CIT).



	Market Value (\$)	Allocation (%)	Lower Range (%)	Target (%)	Upper Range (%)
U.S. Equity Composite	\$ 625,262,083	21.8	15.0	19.0	23.0
Developed Market Non-U.S. Equity Composite	\$ 387,840,042	13.5	8.0	11.0	14.0
Emerging Market Equity Composite	\$ 252,932,697	8.8	4.0	7.0	10.0
Core Fixed Income Composite	\$ 445,065,962	15.5	14.0	17.0	20.0
Non-Core Fixed Income Composite	\$ 190,585,697	6.7	8.0	11.0	14.0
Real Return Composite	\$ 466,093,969	16.3	8.0	15.0	22.0
Real Estate Composite	\$ 246,165,381	8.6	5.0	10.0	15.0
Private Equity Composite	\$ 233,802,716	8.2	5.0	10.0	15.0
Cash Composite	\$ 15,716,447	0.5	0.0	0.0	2.0
Transition Account	\$ 61,801	0.0			
Total Fund Composite	\$2,863,526,795	100.0		100.0	



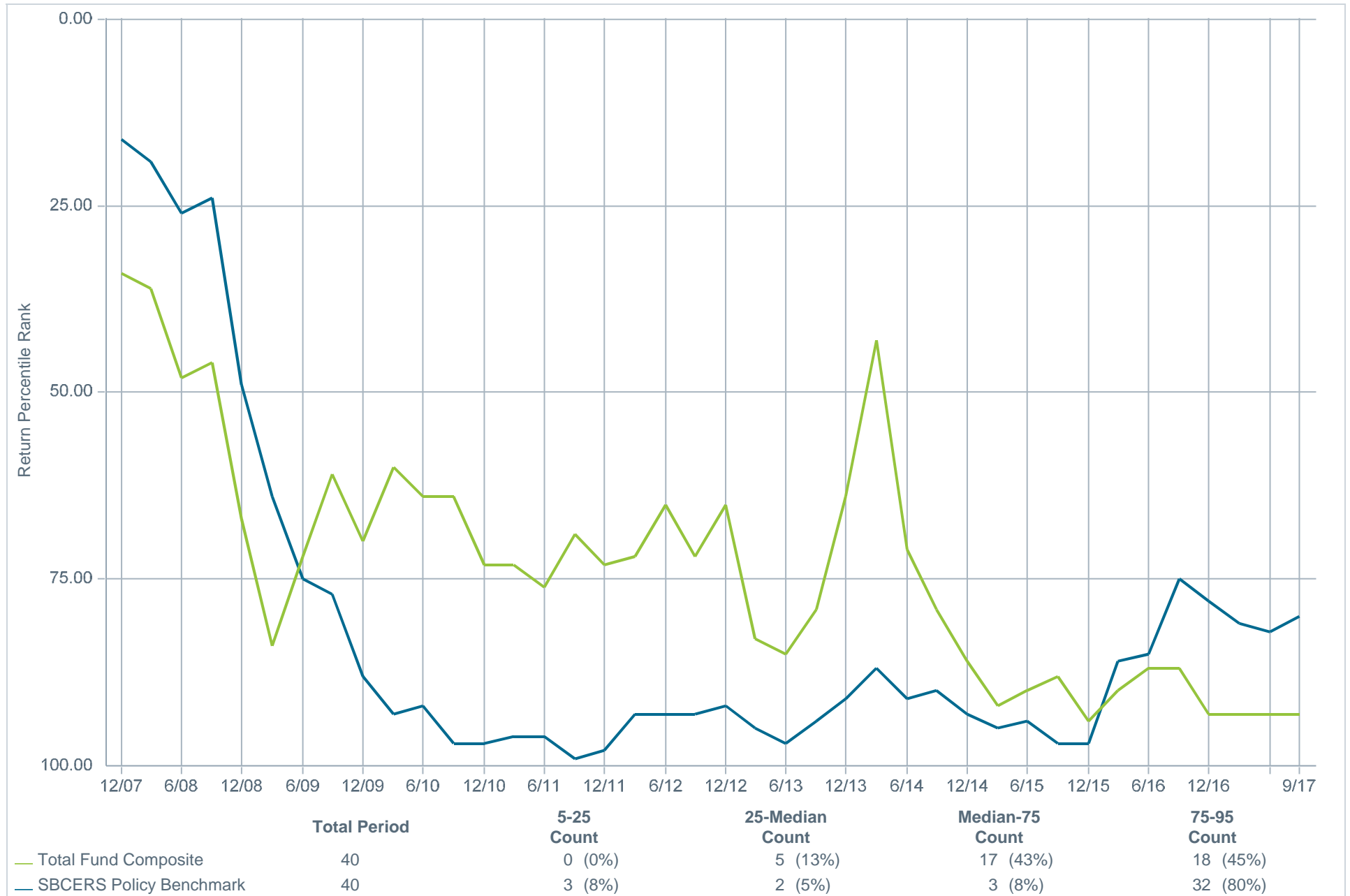
Allocations shown may not sum up to 100% exactly due to rounding.
 Market value for the Transition Account represents residual cash from portfolio restructuring.



Performance shown is gross of fees. Parentheses contain percentile ranks. The fiscal year ends June 30th.

Santa Barbara County Employees' Retirement System
 All Public Plans (\$1B to \$5B) (Custom PG)
 Rolling Percentile Ranking

20 Quarters Rolling Periods As of September 30, 2017



Ranks shown are based on gross of fees performance.



Santa Barbara County Employees' Retirement System
Comparative Performance - Net of Fees

As of September 30, 2017

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund Composite	3.34	3.34	11.07	10.86	5.62	6.80	7.44	4.25	8.32	01/01/1987
SBCERS Policy Benchmark	3.17	3.17	10.80	10.96	6.33	7.53	7.75	4.03	N/A	
Difference	0.17	0.17	0.27	-0.10	-0.71	-0.73	-0.31	0.22	N/A	
SBCERS Dynamic Policy Benchmark	3.63	3.63	11.56	11.87	5.77	7.02	N/A	N/A	N/A	
Difference	-0.29	-0.29	-0.49	-1.01	-0.15	-0.22	N/A	N/A	N/A	
U.S. Equity Composite	4.23	4.23	13.19	17.19	9.63	13.31	13.04	6.49	10.53	01/01/1987
Russell 3000 Index	4.57	4.57	13.91	18.71	10.74	14.23	14.28	7.57	10.35	
Difference	-0.34	-0.34	-0.72	-1.52	-1.11	-0.92	-1.24	-1.08	0.18	
Developed Market Non-U.S. Equity Composite	5.19	5.19	20.28	16.37	6.33	9.35	N/A	N/A	10.40	07/01/2012
MSCI EAFE Index (USD) (Net)	5.40	5.40	19.96	19.10	5.04	8.38	6.38	1.34	9.35	
Difference	-0.21	-0.21	0.32	-2.73	1.29	0.97	N/A	N/A	1.05	
Emerging Market Equity Composite	6.20	6.20	24.87	19.54	4.30	3.74	N/A	N/A	4.89	07/01/2012
MSCI Emg Mkts Index (USD) (Net)	7.89	7.89	27.78	22.46	4.90	3.99	2.54	1.32	5.28	
Difference	-1.69	-1.69	-2.91	-2.92	-0.60	-0.25	N/A	N/A	-0.39	
Core Fixed Income Composite	0.78	0.78	N/A	N/A	N/A	N/A	N/A	N/A	0.78	07/01/2017
Bloomberg US Agg Bond Index	0.85	0.85	3.14	0.07	2.71	2.06	2.95	4.27	0.85	
Difference	-0.07	-0.07	N/A	N/A	N/A	N/A	N/A	N/A	-0.07	
Non-Core Fixed Income Composite	1.94	1.94	N/A	N/A	N/A	N/A	N/A	N/A	1.94	07/01/2017
Custom Non-Core Fixed Income Benchmark	2.03	2.03	7.12	6.82	4.42	4.31	5.35	6.06	2.03	
Difference	-0.09	-0.09	N/A	N/A	N/A	N/A	N/A	N/A	-0.09	
Real Return Composite	1.68	1.68	N/A	N/A	N/A	N/A	N/A	N/A	1.68	07/01/2017
Consumer Price Index+4%	1.75	1.75	5.28	6.32	5.26	5.35	5.83	5.77	1.75	
Difference	-0.07	-0.07	N/A	N/A	N/A	N/A	N/A	N/A	-0.07	
Real Estate Composite	3.45	3.45	8.41	9.86	11.64	11.43	12.43	4.05	5.52	04/01/2006
NCREIF ODCE Index (AWA) (1 Qtr Lag)	1.47	1.47	4.98	6.90	10.33	10.76	12.03	4.28	5.77	
Difference	1.98	1.98	3.43	2.96	1.31	0.67	0.40	-0.23	-0.25	
Private Equity Composite	4.63	4.63	15.56	20.03	10.75	14.12	13.87	9.58	8.59	06/01/2006
Russell 3000 Index+3% (1 Qtr Lag)	3.78	3.78	16.06	22.06	12.38	18.02	18.80	10.47	11.32	
Difference	0.85	0.85	-0.50	-2.03	-1.63	-3.90	-4.93	-0.89	-2.73	

Performance for the NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) is available quarterly; interim months assume a 0.00% return.

Performance shown is net of fees and provided by BNY Mellon. Total Fund performance excludes Treasury Cash. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark. The fiscal year ends June 30th.

**Santa Barbara County Employees' Retirement System
Comparative Performance - Net of Fees**

As of September 30, 2017

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
U.S. Equity Composite	4.23	4.23	13.19	17.19	9.63	13.31	13.04	6.49	10.53	01/01/1987
Russell 3000 Index	4.57	4.57	13.91	18.71	10.74	14.23	14.28	7.57	10.35	
Difference	-0.34	-0.34	-0.72	-1.52	-1.11	-0.92	-1.24	-1.08	0.18	
RhumbLine HEDI (SA)	3.77	3.77	13.66	15.92	N/A	N/A	N/A	N/A	12.53	07/01/2015
Russell 1000 Index	4.48	4.48	14.17	18.54	10.63	14.27	14.35	7.55	11.18	
Difference	-0.71	-0.71	-0.51	-2.62	N/A	N/A	N/A	N/A	1.35	
IM U.S. Large Cap Core Equity (MF) Median	4.43	4.43	13.58	18.24	9.40	13.12	13.06	6.60	10.00	
Rank	76	76	49	73	N/A	N/A	N/A	N/A	6	
SSgA Russell 1000 Index - NL (CF)	4.46	4.46	14.17	18.54	10.65	14.26	N/A	N/A	13.46	04/01/2012
Russell 1000 Index	4.48	4.48	14.17	18.54	10.63	14.27	14.35	7.55	13.50	
Difference	-0.02	-0.02	0.00	0.00	0.02	-0.01	N/A	N/A	-0.04	
IM U.S. Large Cap Core Equity (MF) Median	4.43	4.43	13.58	18.24	9.40	13.12	13.06	6.60	12.39	
Rank	48	48	39	44	19	15	N/A	N/A	16	
Dimensional U.S. Small Cap Value (CF)	6.15	6.15	4.12	19.91	10.62	14.24	13.77	8.10	9.00	04/01/2005
Russell 2000 Val Index	5.11	5.11	5.68	20.55	12.12	13.27	12.80	7.14	7.98	
Difference	1.04	1.04	-1.56	-0.64	-1.50	0.97	0.97	0.96	1.02	
IM U.S. Small Cap Value Equity (MF) Median	5.02	5.02	4.35	19.09	9.93	12.20	12.30	6.93	7.73	
Rank	28	28	53	41	41	18	12	16	14	
RHJ Small Cap Opportunities (SA)	3.53	3.53	17.64	22.48	N/A	N/A	N/A	N/A	22.21	06/01/2016
Russell 2000 Grth Index	6.22	6.22	16.81	20.98	12.17	14.28	14.17	8.47	22.82	
Difference	-2.69	-2.69	0.83	1.50	N/A	N/A	N/A	N/A	-0.61	
IM U.S. Small Cap Growth Equity (MF) Median	6.61	6.61	14.89	18.92	11.30	12.62	13.82	7.70	21.32	
Rank	81	81	44	29	N/A	N/A	N/A	N/A	43	
Developed Market Non-U.S. Equity Composite	5.19	5.19	20.28	16.37	6.33	9.35	N/A	N/A	10.40	07/01/2012
MSCI EAFE Index (USD) (Net)	5.40	5.40	19.96	19.10	5.04	8.38	6.38	1.34	9.35	
Difference	-0.21	-0.21	0.32	-2.73	1.29	0.97	N/A	N/A	1.05	
First Eagle International Value Equity (SA)	2.71	2.71	12.17	8.41	5.76	N/A	N/A	N/A	4.31	06/01/2014
MSCI EAFE Index (USD) (Net)	5.40	5.40	19.96	19.10	5.04	8.38	6.38	1.34	2.94	
Difference	-2.69	-2.69	-7.79	-10.69	0.72	N/A	N/A	N/A	1.37	
IM EAFE Value (MF) Median	5.60	5.60	19.87	20.02	4.17	7.39	5.61	0.47	2.15	
Rank	98	98	100	100	20	N/A	N/A	N/A	16	

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Santa Barbara County Employees' Retirement System
Comparative Performance - Net of Fees

As of September 30, 2017

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
PanAgora Dynamic International Equity (SA)	5.32	5.32	19.62	20.38	7.85	10.29	8.44	N/A	11.30	05/01/2009
MSCI EAFE Index (USD) (Net)	5.40	5.40	19.96	19.10	5.04	8.38	6.38	1.34	9.31	
Difference	-0.08	-0.08	-0.34	1.28	2.81	1.91	2.06	N/A	1.99	
IM EAFE Core (MF) Median	5.22	5.22	20.50	18.18	5.01	7.87	5.90	0.92	8.91	
Rank	47	47	70	18	9	9	8	N/A	11	
SSgA MSCI World (ex. U.S.) Index - NL (CF)	5.69	5.69	19.55	19.15	4.90	N/A	N/A	N/A	6.36	03/01/2013
MSCI Wrld Ex US Index (USD) (Net)	5.62	5.62	19.17	18.73	4.57	7.81	6.02	1.28	6.30	
Difference	0.07	0.07	0.38	0.42	0.33	N/A	N/A	N/A	0.06	
IM EAFE Core (MF) Median	5.22	5.22	20.50	18.18	5.01	7.87	5.90	0.92	6.40	
Rank	39	39	72	32	54	N/A	N/A	N/A	51	
Artisan Non-U.S. Growth (SA)	5.84	5.84	26.75	16.70	3.90	N/A	N/A	N/A	4.70	02/01/2014
MSCI EAFE Index (USD) (Net)	5.40	5.40	19.96	19.10	5.04	8.38	6.38	1.34	4.88	
Difference	0.44	0.44	6.79	-2.40	-1.14	N/A	N/A	N/A	-0.18	
IM EAFE Growth (MF) Median	5.71	5.71	25.59	18.78	6.40	8.42	6.93	1.87	5.76	
Rank	48	48	30	60	94	N/A	N/A	N/A	69	
Copper Rock International Small Cap (CF)	7.49	7.49	24.74	15.75	8.08	N/A	N/A	N/A	9.40	03/01/2013
MSCI EAFE Sm Cap Index (USD) (Net)	7.46	7.46	25.42	21.84	11.13	12.85	9.98	4.63	11.13	
Difference	0.03	0.03	-0.68	-6.09	-3.05	N/A	N/A	N/A	-1.73	
IM International SMID Cap Core Equity (MF) Median	7.35	7.35	25.27	21.06	7.03	9.62	7.97	3.04	8.24	
Rank	40	40	56	93	40	N/A	N/A	N/A	35	
Emerging Market Equity Composite	6.20	6.20	24.87	19.54	4.30	3.74	N/A	N/A	4.89	07/01/2012
MSCI Emg Mkts Index (USD) (Net)	7.89	7.89	27.78	22.46	4.90	3.99	2.54	1.32	5.28	
Difference	-1.69	-1.69	-2.91	-2.92	-0.60	-0.25	N/A	N/A	-0.39	
DFA Emg Mkts Value;I (DFEVX)	5.56	5.56	23.95	22.75	4.17	N/A	N/A	N/A	2.40	05/01/2013
MSCI Emg Mkts Index (USD) (Net)	7.89	7.89	27.78	22.46	4.90	3.99	2.54	1.32	3.45	
Difference	-2.33	-2.33	-3.83	0.29	-0.73	N/A	N/A	N/A	-1.05	
IM Emerging Markets Equity (MF) Median	7.79	7.79	27.57	21.05	4.65	4.10	2.57	1.05	3.18	
Rank	76	76	67	36	58	N/A	N/A	N/A	68	
RBC Emerging Markets Equity (CF)	6.87	6.87	26.22	16.83	N/A	N/A	N/A	N/A	17.37	09/01/2016
MSCI Emg Mkts Index (USD) (Net)	7.89	7.89	27.78	22.46	4.90	3.99	2.54	1.32	22.00	
Difference	-1.02	-1.02	-1.56	-5.63	N/A	N/A	N/A	N/A	-4.63	
IM Emerging Markets Equity (MF) Median	7.79	7.79	27.57	21.05	4.65	4.10	2.57	1.05	21.13	
Rank	64	64	59	74	N/A	N/A	N/A	N/A	72	

Performance shown is net of fees and provided by BNY Mellon. Total Fund performance excludes Treasury Cash. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark. The fiscal year ends June 30th.

Santa Barbara County Employees' Retirement System
Comparative Performance - Net of Fees

As of September 30, 2017

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Core Fixed Income Composite	0.78	0.78	N/A	N/A	N/A	N/A	N/A	N/A	0.78	07/01/2017
Bloomberg US Agg Bond Index	0.85	0.85	3.14	0.07	2.71	2.06	2.95	4.27	0.85	
Difference	-0.07	-0.07	N/A	N/A	N/A	N/A	N/A	N/A	-0.07	
BlackRock Intermediate Duration (CF)	0.34	0.34	1.54	-0.72	1.54	0.98	N/A	N/A	1.85	02/01/2011
Bloomberg US Gov't Int Trm Bond Index	0.34	0.34	1.55	-0.66	1.58	1.01	1.59	3.08	1.87	
Difference	0.00	0.00	-0.01	-0.06	-0.04	-0.03	N/A	N/A	-0.02	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.81	0.81	3.26	0.47	2.50	2.00	2.99	4.17	3.26	
Rank	96	96	99	94	94	97	N/A	N/A	97	
Garcia Hamilton Core Fixed Income (SA)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.43	09/01/2017
Bloomberg US Agg Bond Index	0.85	0.85	3.14	0.07	2.71	2.06	2.95	4.27	-0.48	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.05	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.81	0.81	3.26	0.47	2.50	2.00	2.99	4.17	-0.42	
Rank	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	56	
Guggenheim Core Plus Fixed Income (SA)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.19	09/01/2017
Bloomberg US Agg Bond Index	0.85	0.85	3.14	0.07	2.71	2.06	2.95	4.27	-0.48	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.29	
IM U.S. Broad Market Core+ Fixed Income (MF) Median	1.03	1.03	4.06	1.76	2.95	2.52	3.60	4.93	-0.30	
Rank	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25	
Non-Core Fixed Income Composite	1.94	1.94	N/A	N/A	N/A	N/A	N/A	N/A	1.94	07/01/2017
Custom Non-Core Fixed Income Benchmark	2.03	2.03	7.12	6.82	4.42	4.31	5.35	6.06	2.03	
Difference	-0.09	-0.09	N/A	N/A	N/A	N/A	N/A	N/A	-0.09	
Stone Harbor Emerging Market Debt Blend (CIT)	3.73	3.73	12.69	7.00	3.05	0.88	N/A	N/A	1.33	08/01/2012
Stone Harbor Blended Benchmark	3.04	3.04	11.43	6.11	3.32	2.04	3.45	5.62	2.48	
Difference	0.69	0.69	1.26	0.89	-0.27	-1.16	N/A	N/A	-1.15	
IM Emerging Markets Debt (MF) Median	3.00	3.00	9.83	6.62	4.99	3.48	5.09	6.44	3.98	
Rank	13	13	5	41	80	90	N/A	N/A	92	
Hotchkis & Wiley High Yield (SA)	1.02	1.02	6.92	9.02	4.62	N/A	N/A	N/A	4.77	12/01/2013
Bloomberg US Corp Hi Yld Index	1.98	1.98	7.00	8.88	5.83	6.36	7.45	7.84	5.62	
Difference	-0.96	-0.96	-0.08	0.14	-1.21	N/A	N/A	N/A	-0.85	
IM U.S. High Yield Bonds (MF) Median	1.83	1.83	6.14	7.76	4.45	5.27	6.35	6.28	4.35	
Rank	94	94	23	23	44	N/A	N/A	N/A	35	

Performance shown is net of fees and provided by BNY Mellon. Total Fund performance excludes Treasury Cash. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark. The fiscal year ends June 30th.

Santa Barbara County Employees' Retirement System
Comparative Performance - Net of Fees

As of September 30, 2017

	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Beach Point Leveraged Loan (CF)	0.66	0.66	1.78	2.63	3.48	4.31	N/A	N/A	4.31	10/01/2012
CS Lvg'd Loan Index	1.06	1.06	3.04	5.36	3.96	4.40	4.99	4.43	4.40	
Difference	-0.40	-0.40	-1.26	-2.73	-0.48	-0.09	N/A	N/A	-0.09	
IM U.S. Bank Loans (MF) Median	0.96	0.96	2.55	4.39	3.29	3.54	4.17	3.52	3.54	
Rank	86	86	85	97	36	12	N/A	N/A	12	
Real Return Composite	1.68	1.68	N/A	N/A	N/A	N/A	N/A	N/A	1.68	07/01/2017
Consumer Price Index+4%	1.75	1.75	5.28	6.32	5.26	5.35	5.83	5.77	1.75	
Difference	-0.07	-0.07	N/A	N/A	N/A	N/A	N/A	N/A	-0.07	
BlackRock TIPS (CF)	0.86	0.86	1.76	-0.69	1.62	N/A	N/A	N/A	-0.27	12/01/2012
Bloomberg US Trsy: US TIPS Index	0.86	0.86	1.72	-0.73	1.62	0.02	2.64	3.90	-0.26	
Difference	0.00	0.00	0.04	0.04	0.00	N/A	N/A	N/A	-0.01	
IM U.S. TIPS (MF) Median	0.79	0.79	1.52	-0.43	1.02	-0.35	1.94	3.29	-0.62	
Rank	36	36	34	61	16	N/A	N/A	N/A	26	
Cohen & Steers Real Assets Fund (CIT)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.09	09/01/2017
C&S Real Assets Blended Benchmark	3.45	3.45	5.86	4.50	0.06	0.01	N/A	N/A	-0.02	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.07	
Nuveen Real Asset Income Fund (SA)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.48	09/01/2017
Nuveen Real Assets Blended Benchmark	2.43	2.43	11.58	7.95	6.30	7.62	N/A	N/A	-0.19	
Difference	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.29	
Natural Resources Private Composite	-1.36	-1.36	8.43	9.50	6.17	N/A	N/A	N/A	4.90	10/01/2013
Consumer Price Index+4% (1 Qtr Lag)	1.46	1.46	4.49	5.70	4.95	5.37	5.75	5.70	5.25	
Difference	-2.82	-2.82	3.94	3.80	1.22	N/A	N/A	N/A	-0.35	
Infrastructure Private Composite	-0.16	-0.16	8.64	19.70	-10.19	N/A	N/A	N/A	-19.13	01/01/2014
Consumer Price Index+4%	1.75	1.75	5.28	6.32	5.26	5.35	5.83	5.77	5.60	
Difference	-1.91	-1.91	3.36	13.38	-15.45	N/A	N/A	N/A	-24.73	

Performance shown is net of fees and provided by BNY Mellon. Total Fund performance excludes Treasury Cash. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark. The fiscal year ends June 30th.

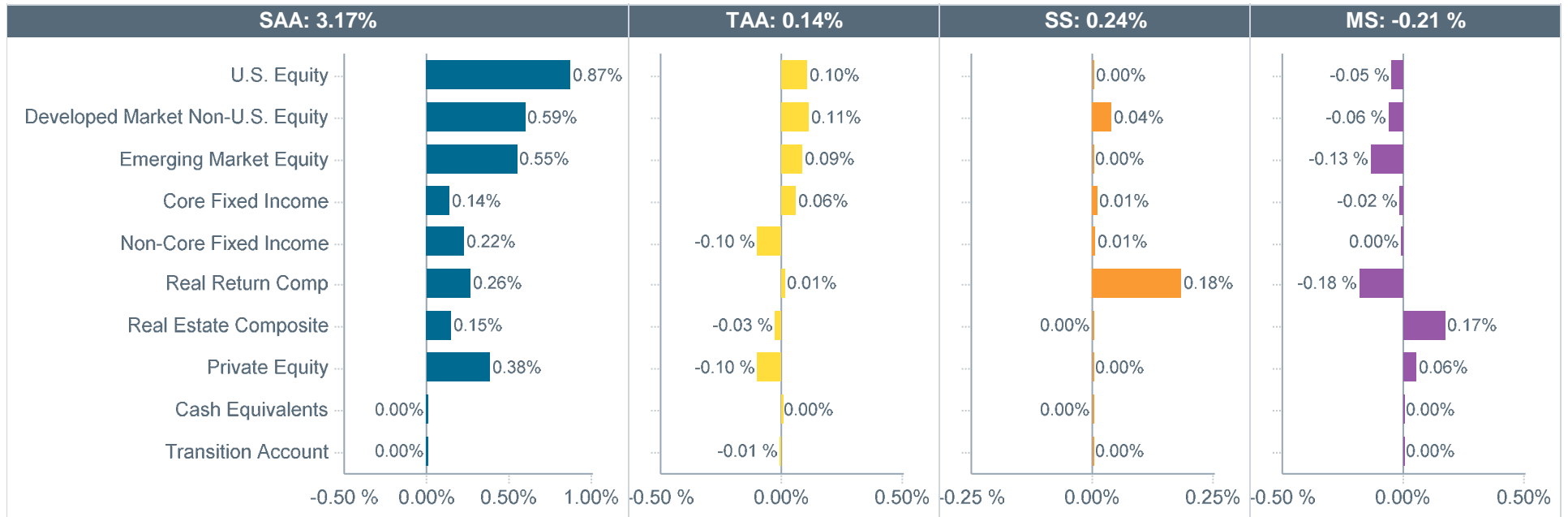
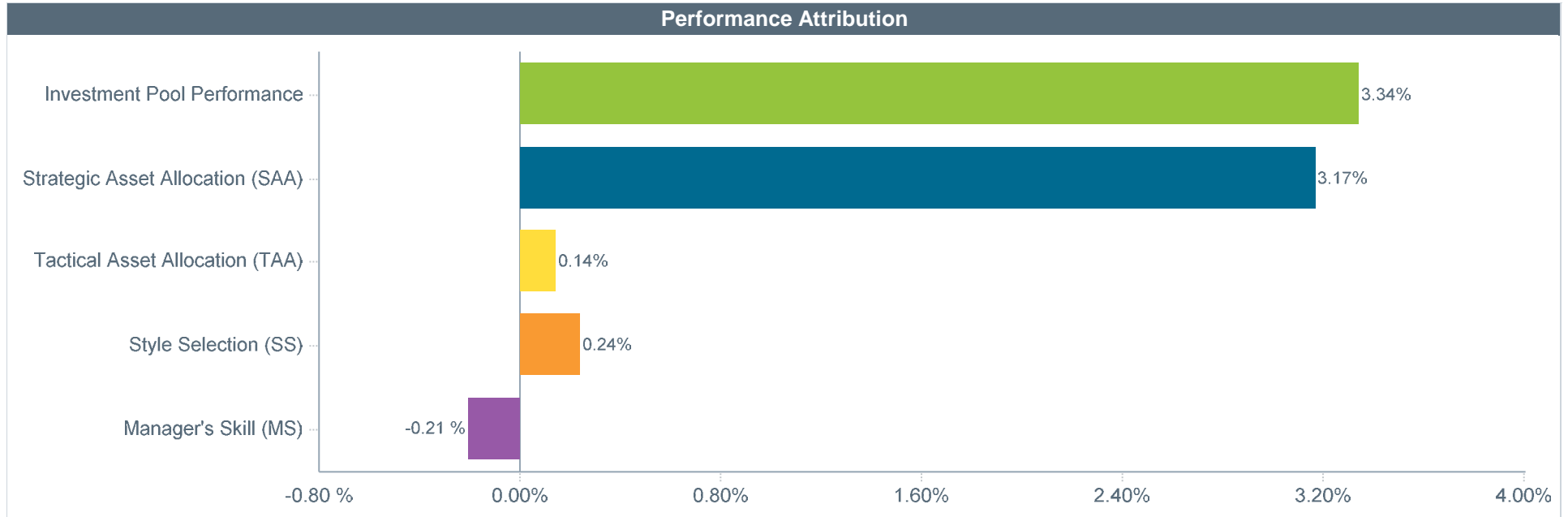
**Santa Barbara County Employees' Retirement System
Comparative Performance - Net of Fees**

As of September 30, 2017

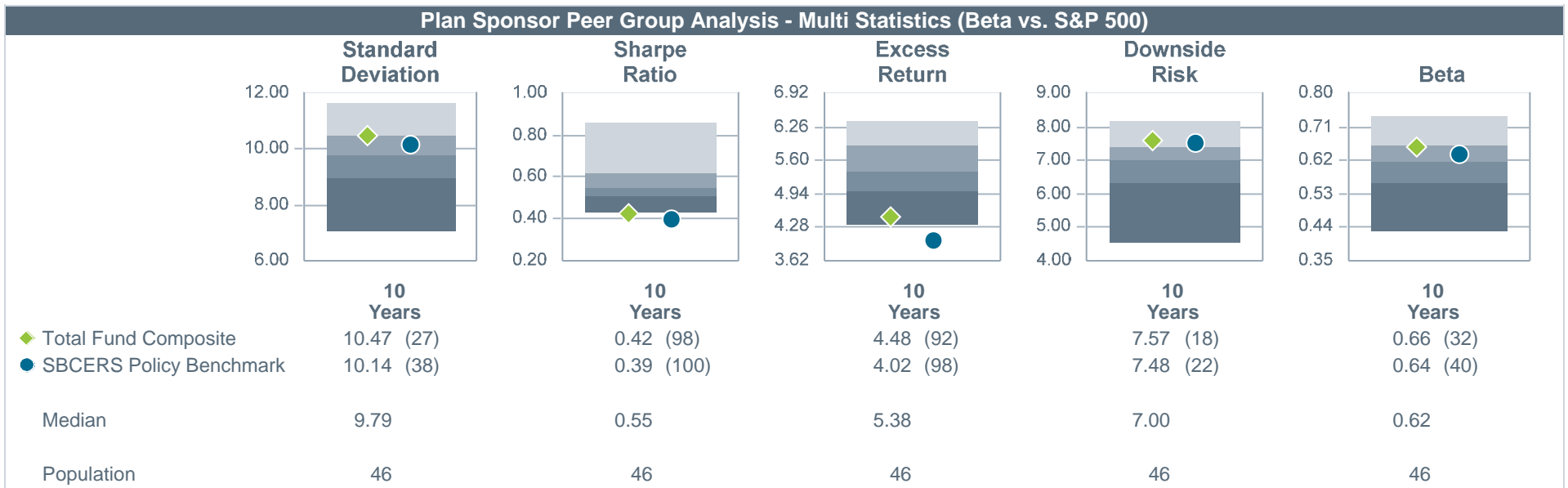
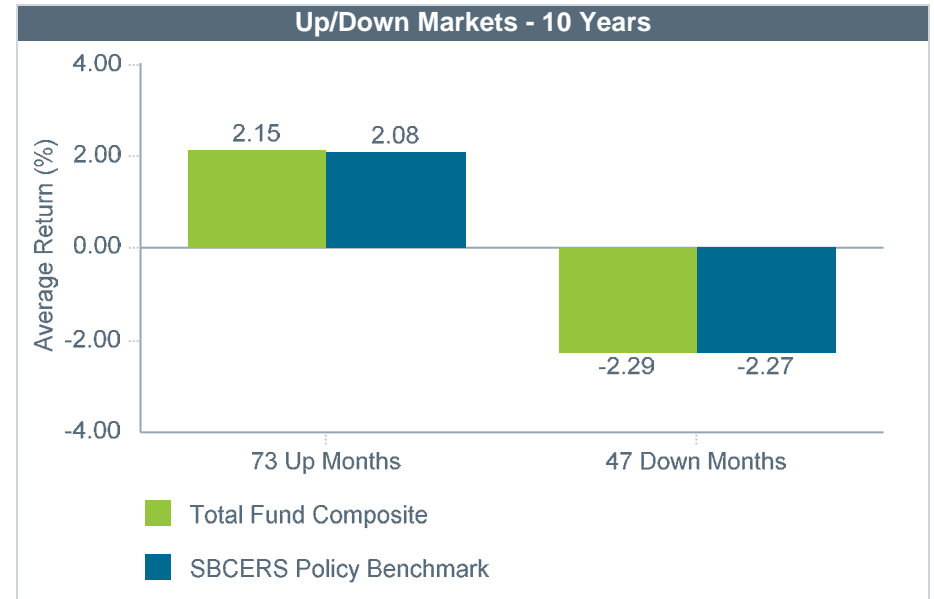
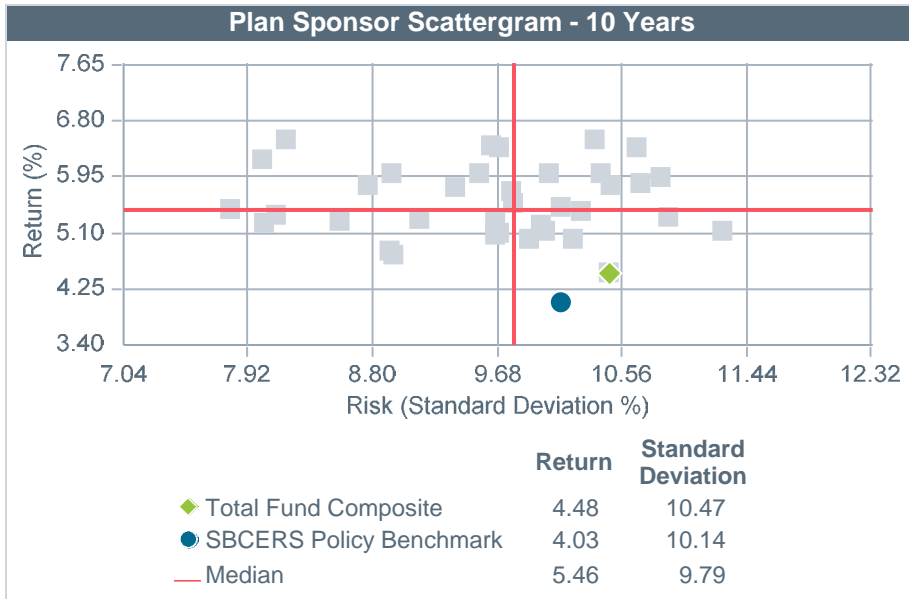
	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Real Estate Composite	3.45	3.45	8.41	9.86	11.64	11.43	12.43	4.05	5.52	04/01/2006
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)	1.47	1.47	4.98	6.90	10.33	10.76	12.03	4.28	5.77	
Difference	1.98	1.98	3.43	2.96	1.31	0.67	0.40	-0.23	-0.25	
ORG Real Estate	3.73	3.73	8.47	10.73	11.61	11.66	12.43	4.05	5.52	04/01/2006
NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag)	1.47	1.47	4.98	6.90	10.33	10.76	12.03	4.28	5.77	
Difference	2.26	2.26	3.49	3.83	1.28	0.90	0.40	-0.23	-0.25	
Harrison Street REIT (SA)	0.45	0.45	6.87	2.98	10.38	9.21	N/A	N/A	11.21	11/01/2011
FTSE NAREIT All Eq REITs Index (TR)	1.11	1.11	6.04	2.57	10.18	9.97	11.72	6.06	11.29	
Difference	-0.66	-0.66	0.83	0.41	0.20	-0.76	N/A	N/A	-0.08	
Private Equity Composite	4.63	4.63	15.56	20.03	10.75	14.12	13.87	9.58	8.59	06/01/2006
Russell 3000 Index+3% (1 Qtr Lag)	3.78	3.78	16.06	22.06	12.38	18.02	18.80	10.47	11.32	
Difference	0.85	0.85	-0.50	-2.03	-1.63	-3.90	-4.93	-0.89	-2.73	

Performance for the NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) is available quarterly; interim months assume a 0.00% return.

Performance shown is net of fees and provided by BNY Mellon. Total Fund performance excludes Treasury Cash. Indices show N/A for since inception returns when the fund contains more history than the corresponding benchmark. The fiscal year ends June 30th.



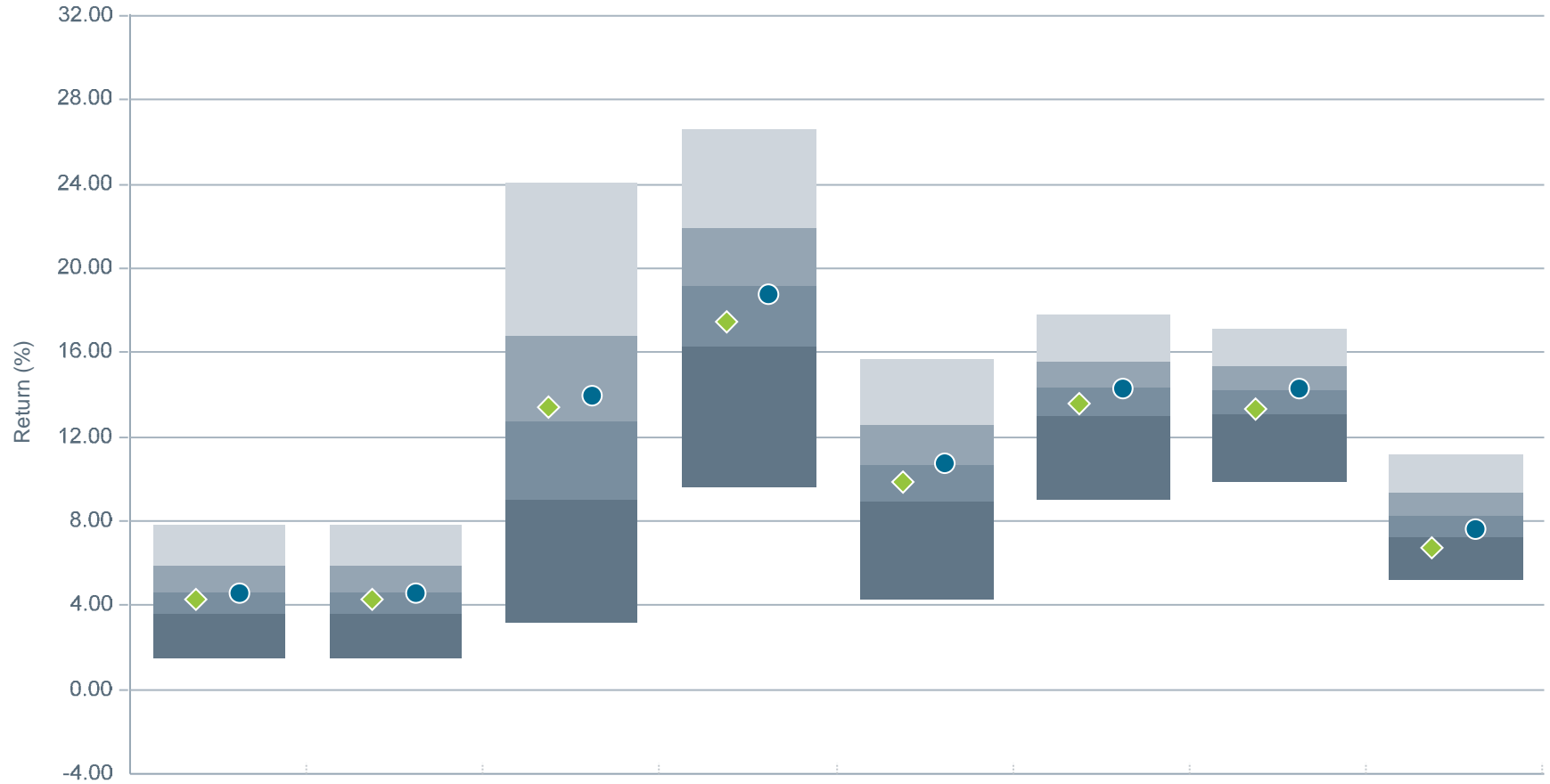
Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



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

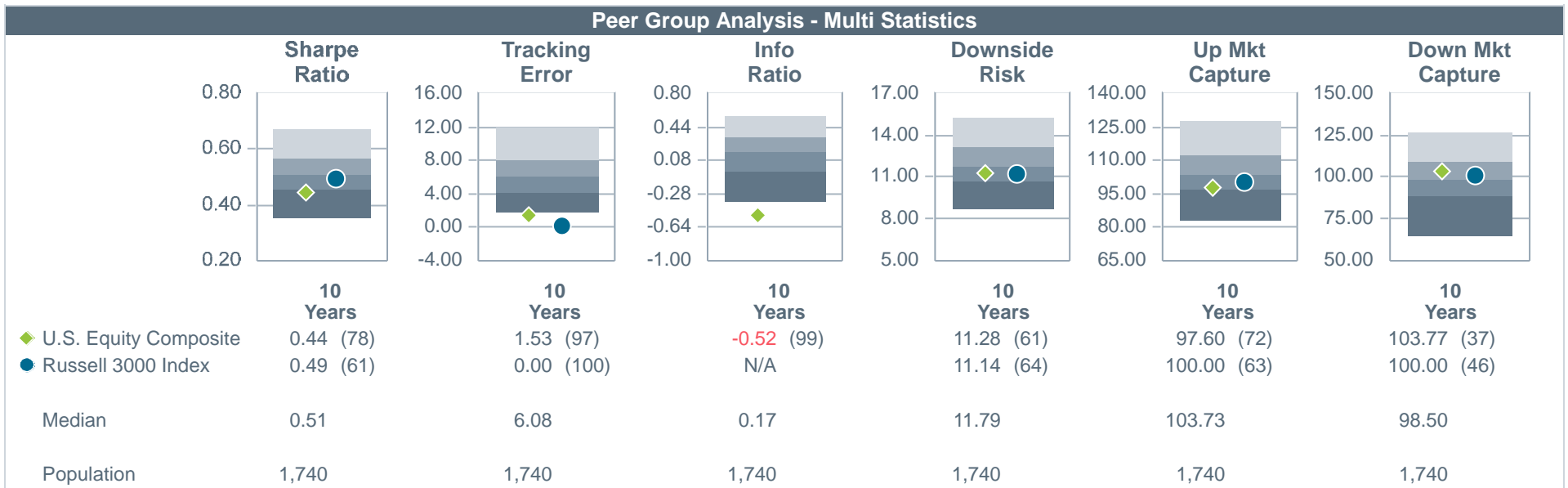
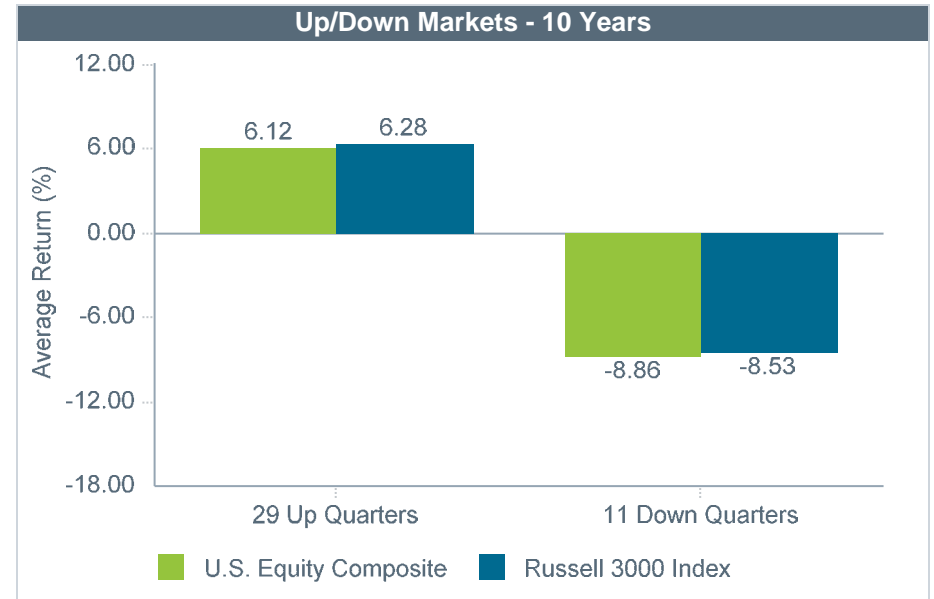
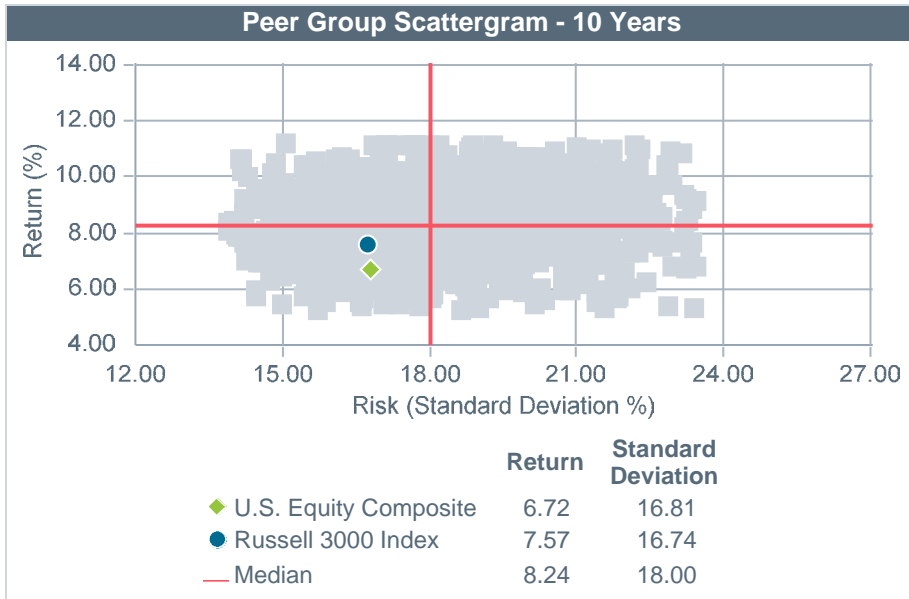
Santa Barbara County Employees' Retirement System
 U.S. Equity Composite vs. IM U.S. Equity (SA+CF)
 Peer Group Analysis

As of September 30, 2017



	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
◆ U.S. Equity Composite	4.26 (63)	4.26 (63)	13.38 (46)	17.47 (68)	9.89 (64)	13.55 (68)	13.30 (72)	6.72 (84)
● Russell 3000 Index	4.57 (54)	4.57 (54)	13.91 (43)	18.71 (56)	10.74 (51)	14.23 (55)	14.28 (51)	7.57 (68)
5th Percentile	7.87	7.87	24.06	26.58	15.69	17.82	17.17	11.16
1st Quartile	5.88	5.88	16.76	21.93	12.53	15.57	15.35	9.37
Median	4.66	4.66	12.73	19.15	10.74	14.34	14.28	8.24
3rd Quartile	3.60	3.60	9.00	16.31	8.94	13.02	13.09	7.24
95th Percentile	1.46	1.46	3.18	9.58	4.29	8.99	9.86	5.23
Population	2,307	2,307	2,302	2,293	2,235	2,117	1,987	1,740

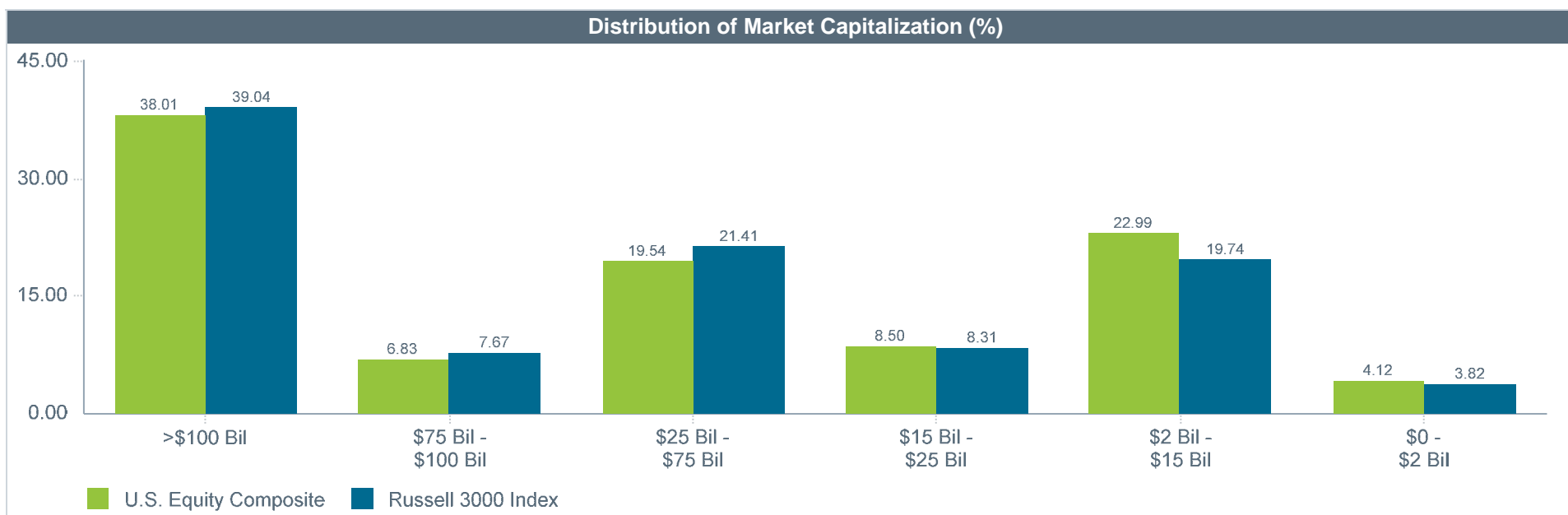
Performance shown is gross of fees. Parentheses contain percentile ranks.



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

Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	2.98	3.09	-0.11	7.45
Microsoft Corp	2.12	2.14	-0.02	8.64
Berkshire Hathaway Inc	1.59	1.35	0.24	8.24
Johnson & Johnson	1.56	1.35	0.21	-1.10
Exxon Mobil Corp	1.42	1.33	0.09	2.54
Facebook Inc	1.40	1.53	-0.13	13.17
Alphabet Inc	1.21	1.11	0.10	5.54
Alphabet Inc	1.19	1.11	0.08	4.74
Procter & Gamble Co (The)	1.05	0.89	0.16	5.21
Amazon.com Inc	1.02	1.47	-0.45	-0.69
% of Portfolio	15.54	15.37	0.17	

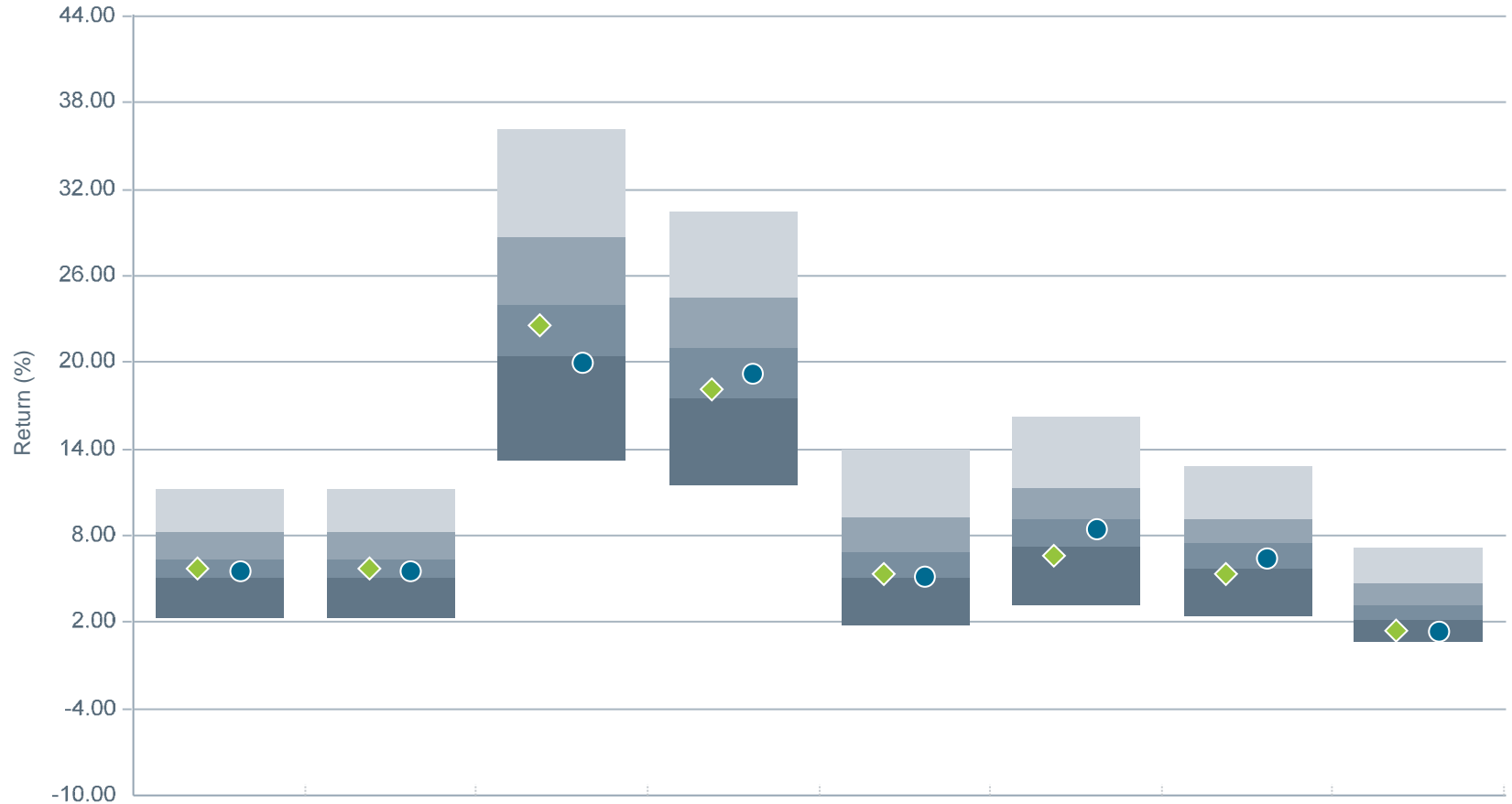
Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	141,962	146,514
Median Mkt. Cap (\$M)	3,014	1,673
Price/Earnings Ratio	22.74	22.34
Price/Book Ratio	3.35	3.16
5 Yr. EPS Growth Rate (%)	9.57	10.25
Current Yield (%)	1.81	1.88
Beta (5 Years, Monthly)	0.93	1.00
Number of Securities	1,965	2,981



Alphabet's Class A and Class C shares are both recognized as "Alphabet Inc."

Santa Barbara County Employees' Retirement System
 International Equity Composite vs. IM International Equity (SA+CF)
 Peer Group Analysis

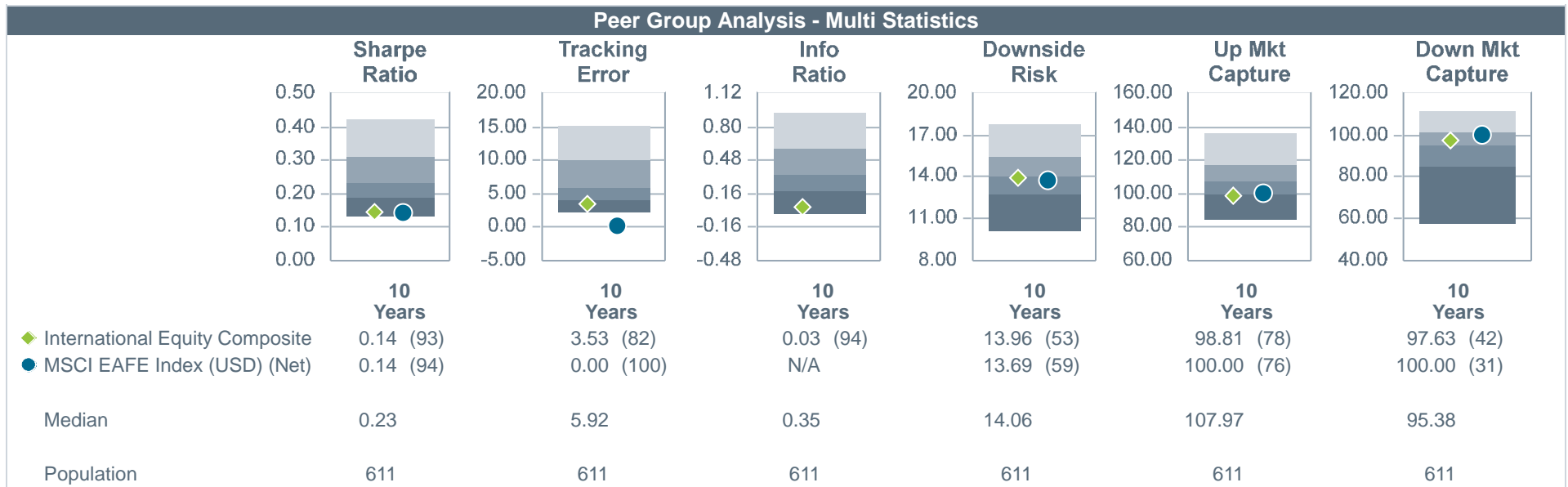
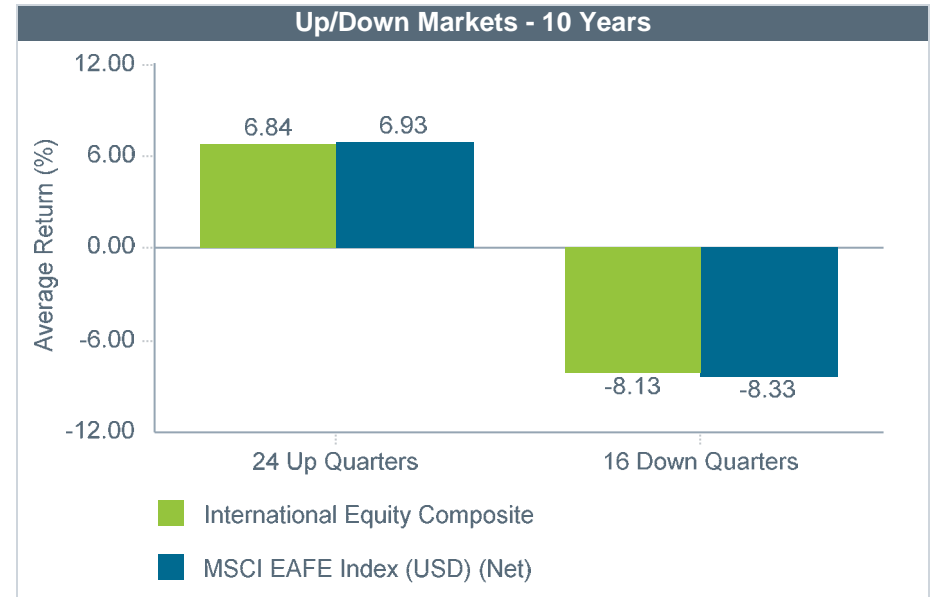
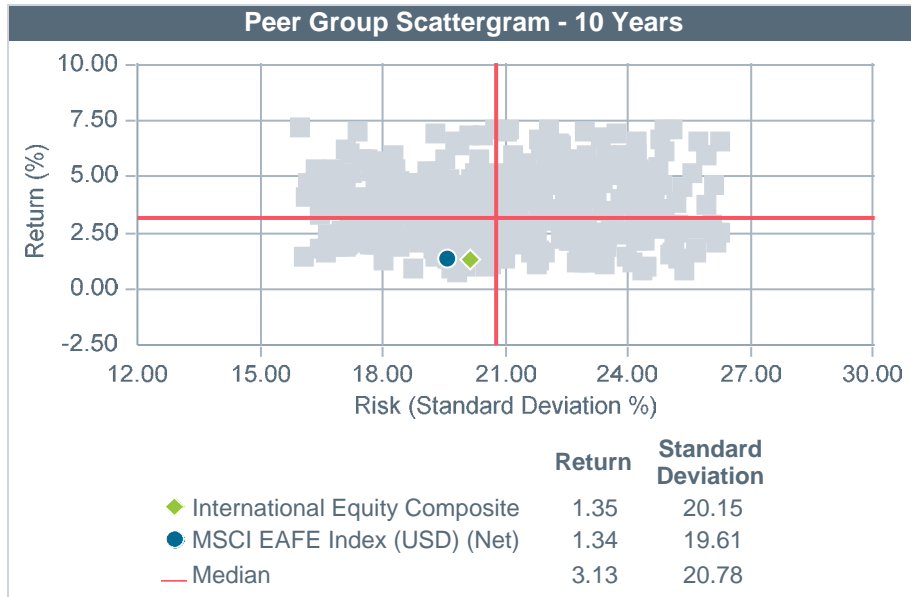
As of September 30, 2017



	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
◆ International Equity Composite	5.67 (63)	5.67 (63)	22.56 (59)	18.11 (72)	5.30 (73)	6.64 (78)	5.32 (79)	1.35 (91)
● MSCI EAFE Index (USD) (Net)	5.40 (68)	5.40 (68)	19.96 (78)	19.10 (66)	5.04 (76)	8.38 (61)	6.38 (68)	1.34 (92)
5th Percentile	11.19	11.19	36.10	30.39	13.99	16.23	12.88	7.17
1st Quartile	8.20	8.20	28.64	24.47	9.21	11.28	9.15	4.73
Median	6.38	6.38	23.98	21.03	6.91	9.18	7.54	3.13
3rd Quartile	5.06	5.06	20.37	17.49	5.09	7.19	5.66	2.14
95th Percentile	2.28	2.28	13.14	11.54	1.85	3.20	2.44	0.71
Population	1,005	1,005	1,002	1,001	949	860	740	611

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





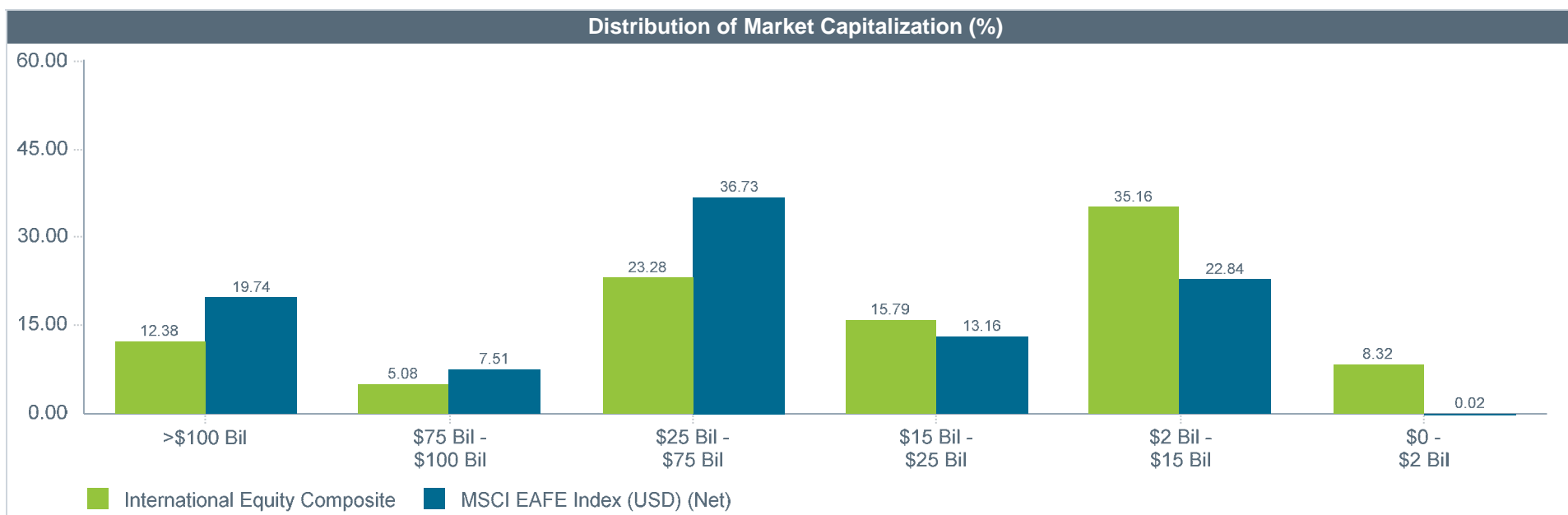
Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.

Santa Barbara County Employees' Retirement System
 International Equity Composite vs. MSCI EAFE Index (USD) (Net)
 Portfolio Characteristics

As of September 30, 2017

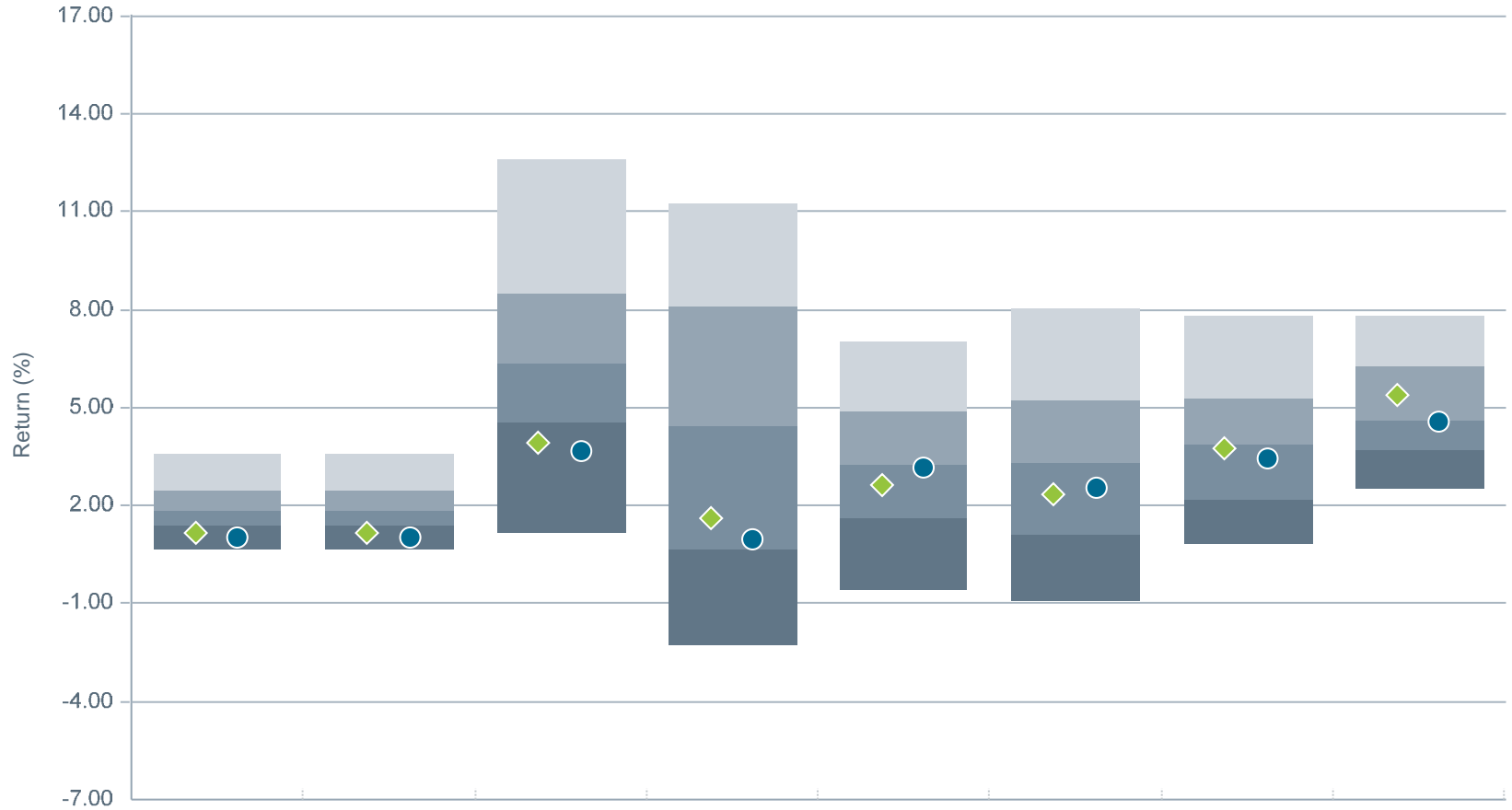
Top Ten Equity Holdings				
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Alibaba Group Holding Ltd	1.45	0.00	1.45	22.58
AIA Group Ltd	1.33	0.62	0.71	1.34
Nestle SA, Cham Und Vevey	1.19	1.81	-0.62	-3.80
Naspers Ltd	1.10	0.00	1.10	11.65
Housing Development Fin Corp Ltd	1.06	0.00	1.06	7.68
SPDR Gold Trust	1.03	0.00	1.03	3.02
Taiwan Semiconductor Mfg (ADR)	0.93	0.00	0.93	7.41
Allianz SE	0.89	0.71	0.18	14.21
Samsung Electronics Co Ltd	0.87	0.00	0.87	10.84
Deutsche Boerse AG Frankfurt	0.84	0.15	0.69	2.87
% of Portfolio	10.69	3.29	7.40	

Portfolio Characteristics		
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	46,130	61,875
Median Mkt. Cap (\$M)	1,566	11,202
Price/Earnings Ratio	15.31	17.11
Price/Book Ratio	2.31	2.23
5 Yr. EPS Growth Rate (%)	7.02	6.51
Current Yield (%)	2.61	3.15
Beta (5 Years, Monthly)	0.85	1.00
Number of Securities	3,630	926



Santa Barbara County Employees' Retirement System
 Fixed Income Composite vs. IM Global Fixed Income (SA+CF)
 Peer Group Analysis

As of September 30, 2017



	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
◆ Fixed Income Composite	1.17 (84)	1.17 (84)	3.93 (83)	1.60 (68)	2.63 (58)	2.37 (61)	3.75 (52)	5.38 (39)
● Bloomberg US Unv Bond Index	1.01 (90)	1.01 (90)	3.67 (85)	0.96 (73)	3.11 (54)	2.53 (60)	3.40 (58)	4.56 (51)
5th Percentile	3.58	3.58	12.62	11.28	7.02	8.06	7.81	7.84
1st Quartile	2.46	2.46	8.49	8.11	4.91	5.20	5.29	6.28
Median	1.86	1.86	6.37	4.41	3.25	3.28	3.89	4.60
3rd Quartile	1.41	1.41	4.57	0.65	1.64	1.09	2.16	3.71
95th Percentile	0.66	0.66	1.15	-2.27	-0.56	-0.92	0.85	2.53
Population	222	222	222	222	209	187	143	109

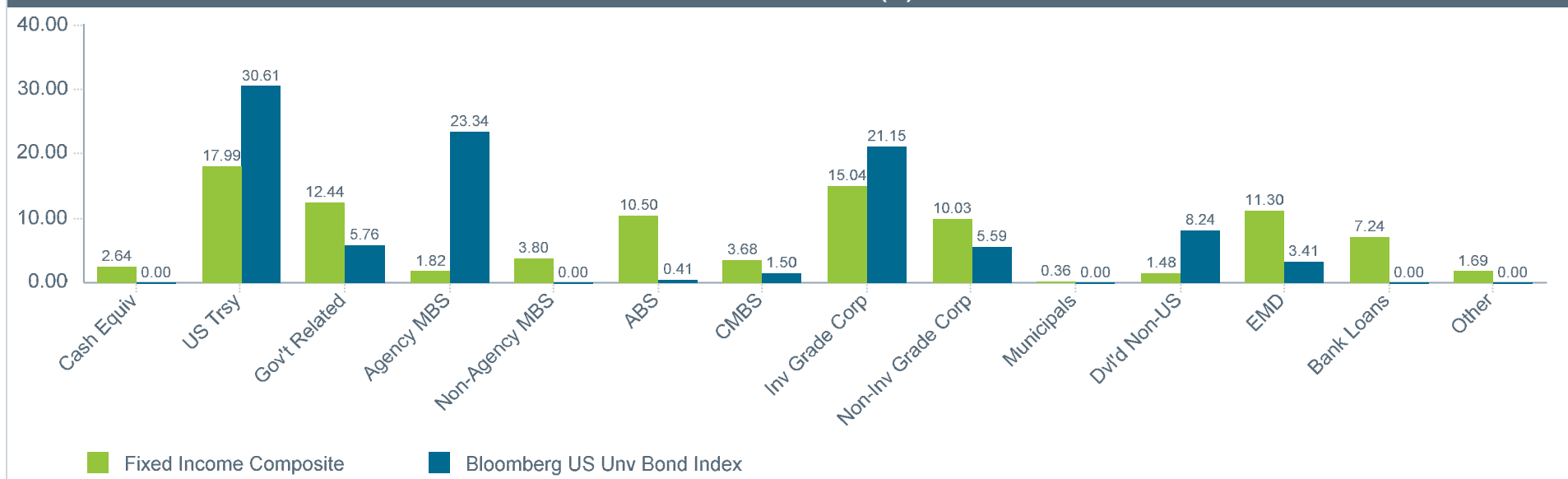
Performance shown is gross of fees. Parentheses contain percentile ranks.



Portfolio Characteristics

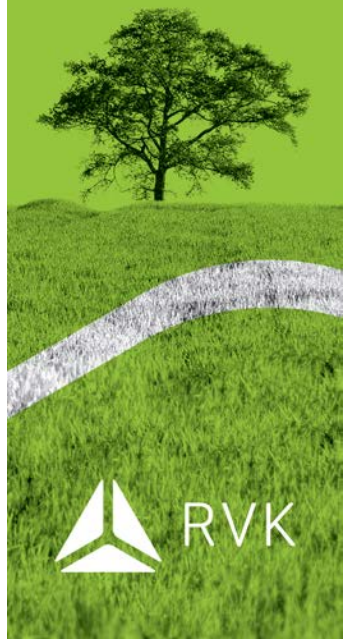
	Portfolio	Benchmark
Avg. Maturity	7.10	8.04
Avg. Quality	A3	N/A
Yield To Maturity (%)	3.48	2.90
Coupon Rate (%)	3.47	3.43
Current Yield (%)	3.58	0.22

Sector Distribution (%)

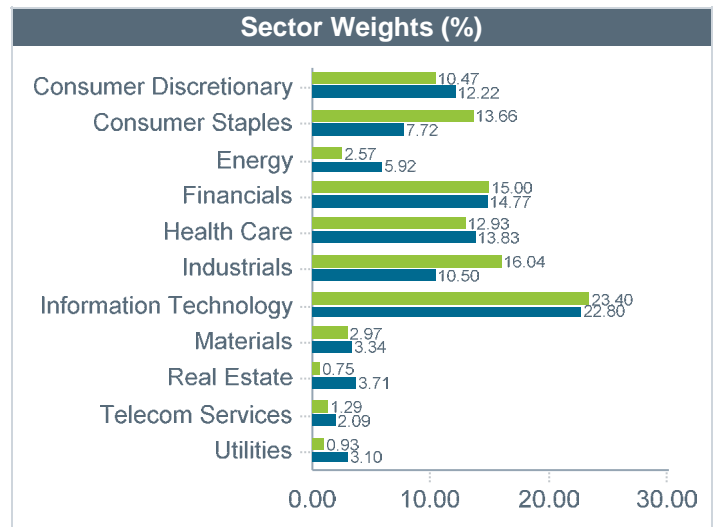
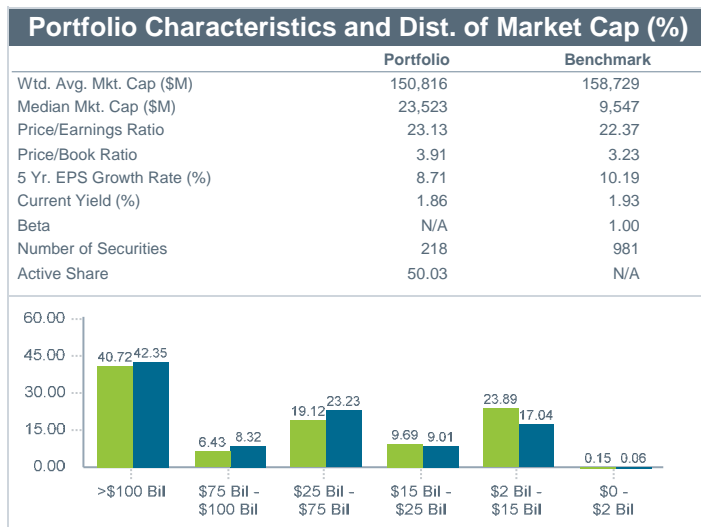
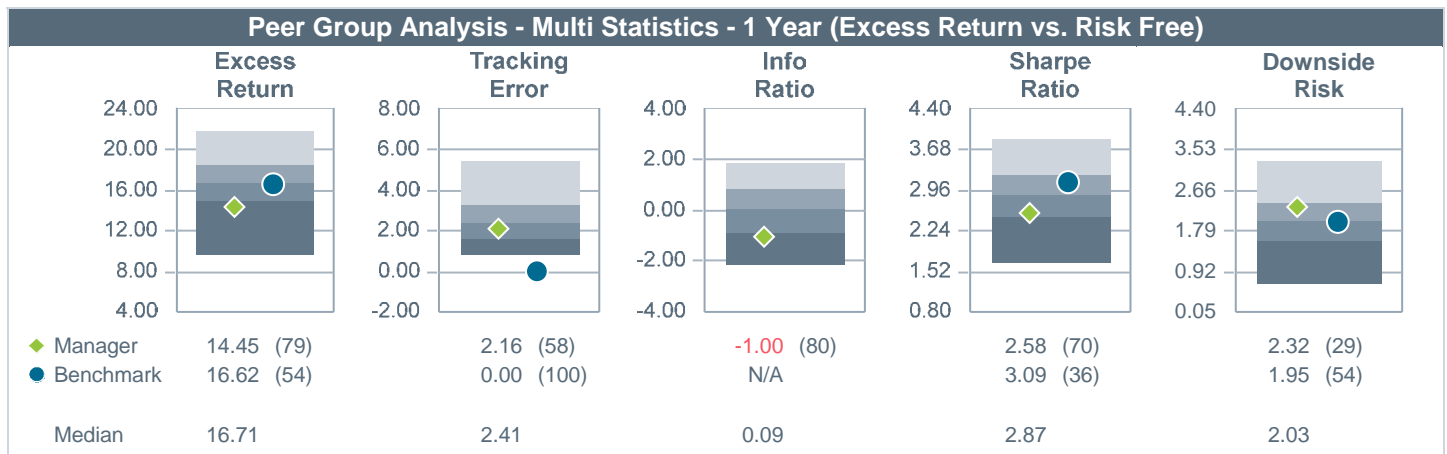
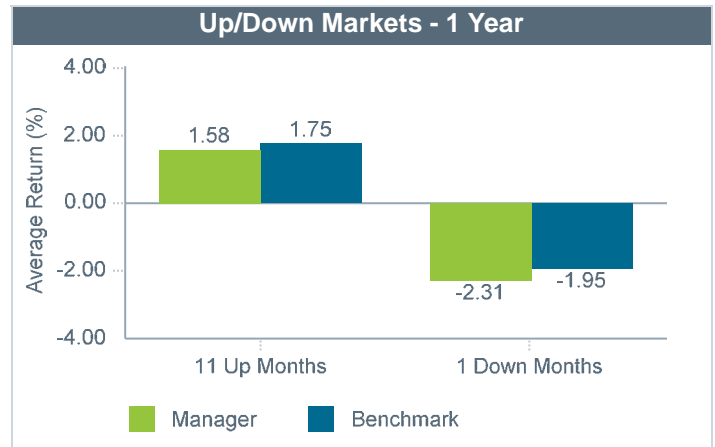
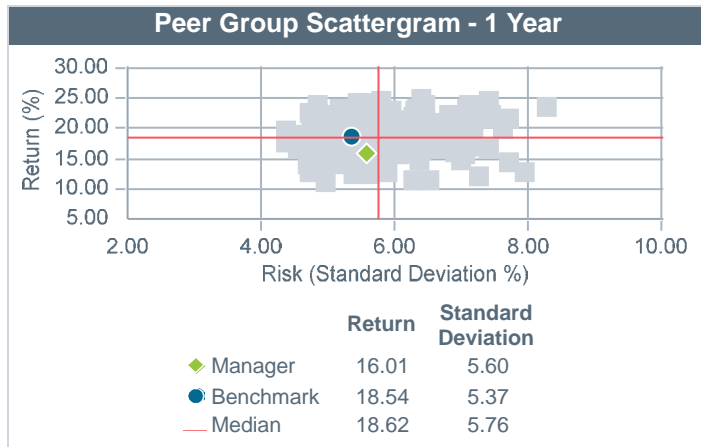


Allocation to "Other" consists of Common Stock, Convertibles, Derivatives, Military Housing, net FX exposure, Preferreds, and Private Placements.

Investment Manager Profiles

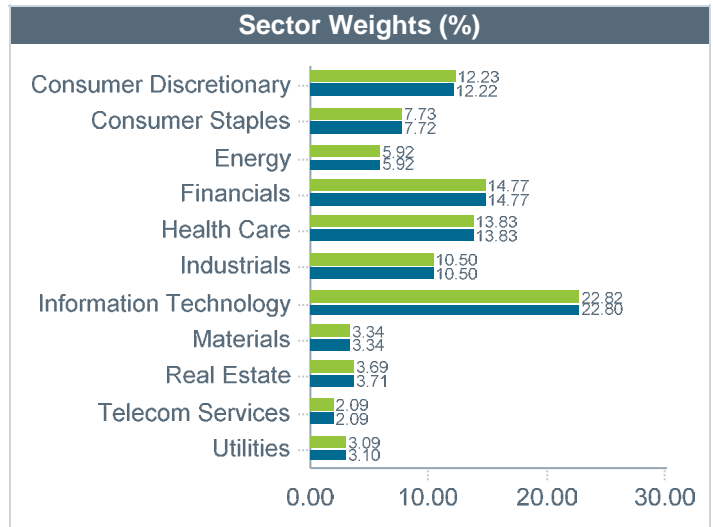
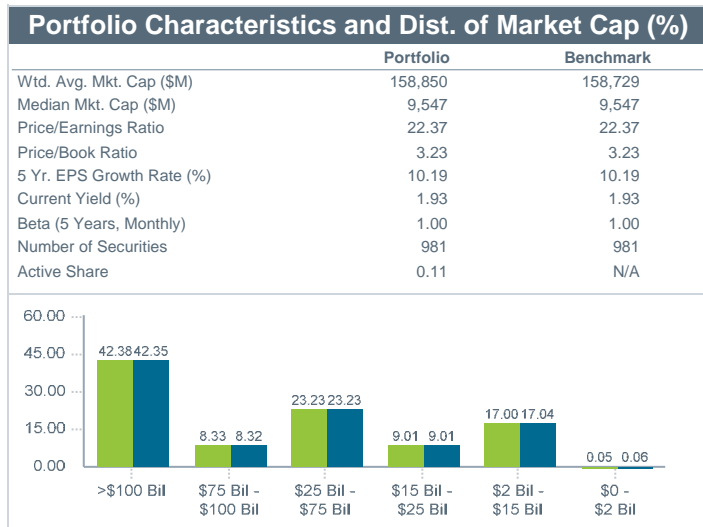
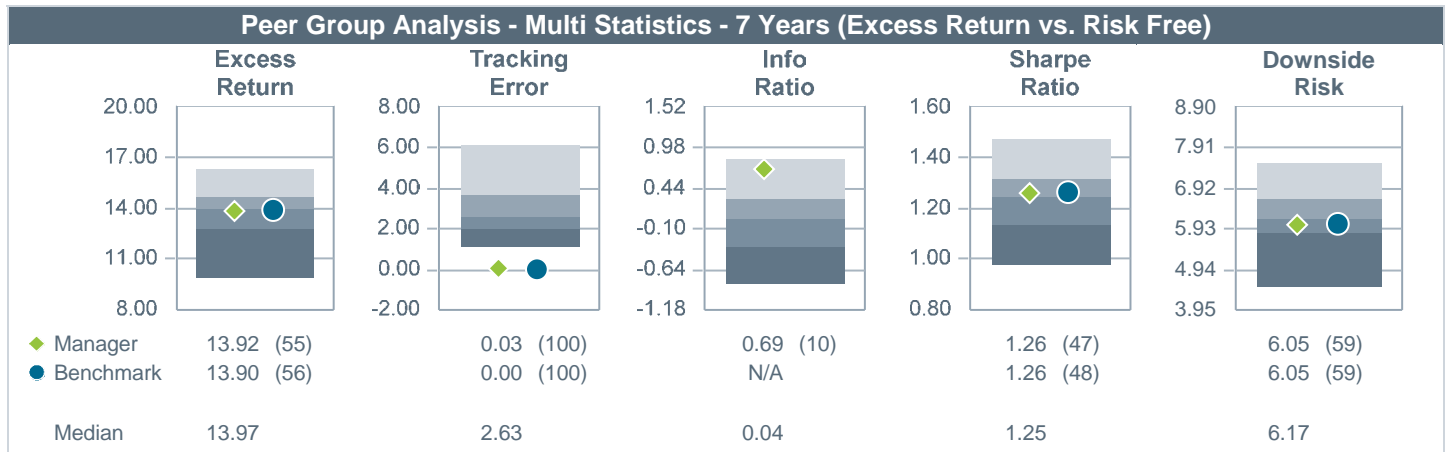
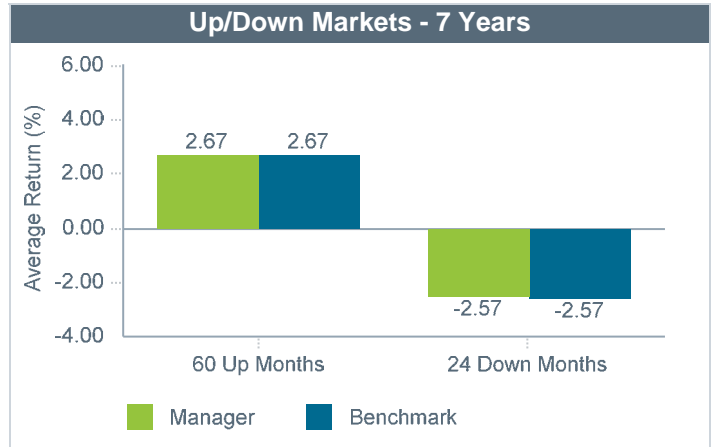
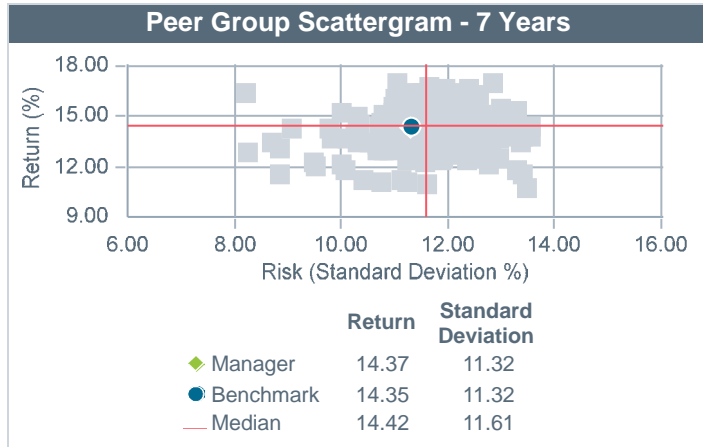


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	3.80	16.01	N/A	N/A	N/A	N/A	11.40	N/A	N/A	N/A	N/A
Benchmark	4.48	18.54	10.63	14.27	14.35	7.55	12.05	0.92	13.24	33.11	16.42
Difference	-0.68	-2.53	N/A	N/A	N/A	N/A	-0.65	N/A	N/A	N/A	N/A
Peer Group Median	4.61	18.63	10.55	14.19	14.42	7.83	10.51	1.35	13.42	32.98	15.68
Rank	78	79	N/A	N/A	N/A	N/A	40	N/A	N/A	N/A	N/A
Population	269	268	263	248	230	207	296	314	336	355	362



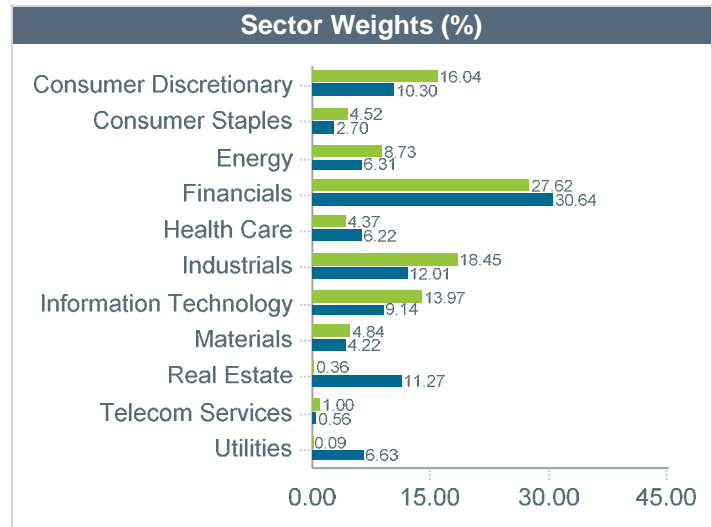
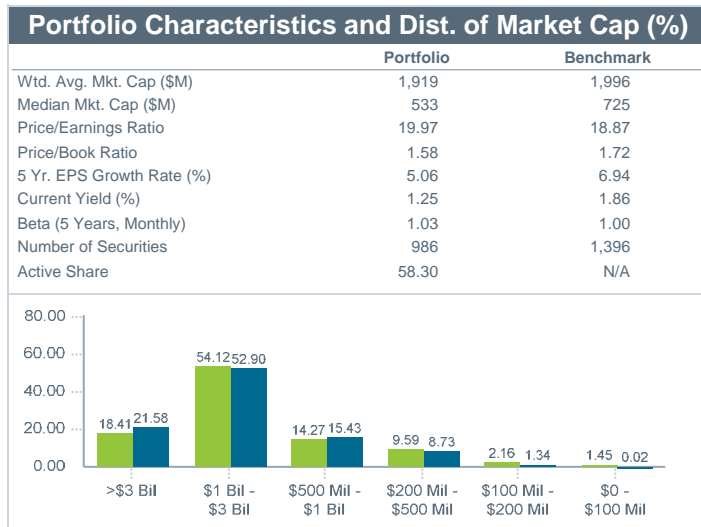
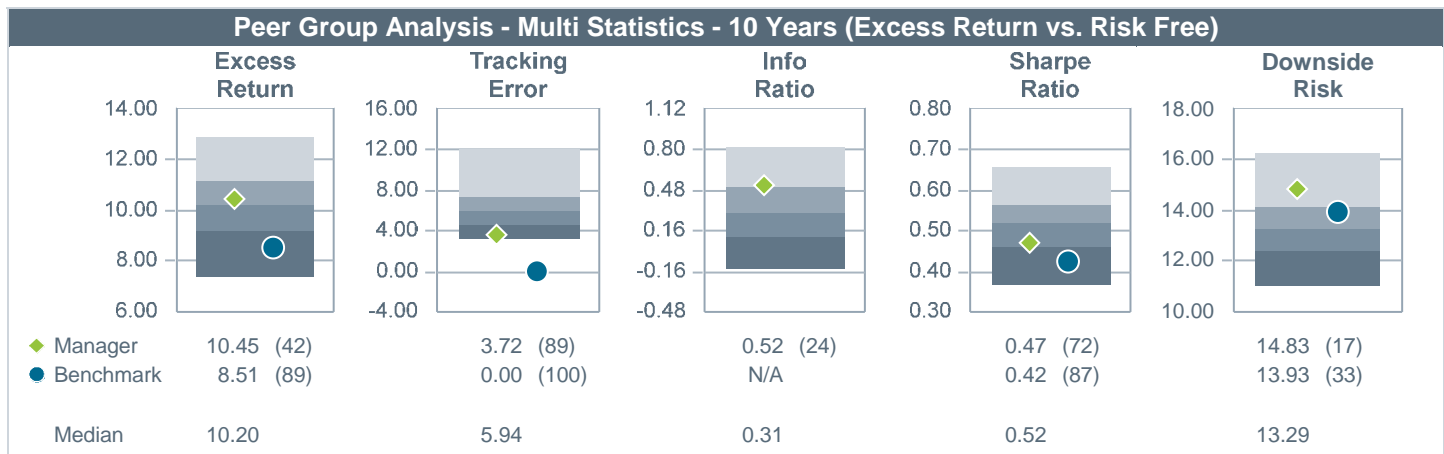
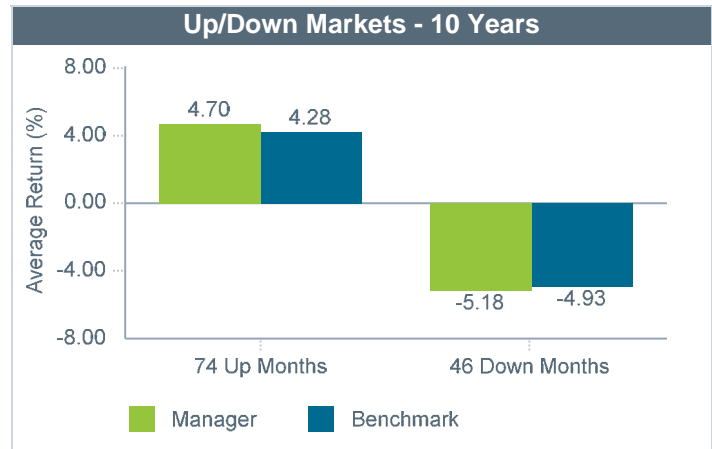
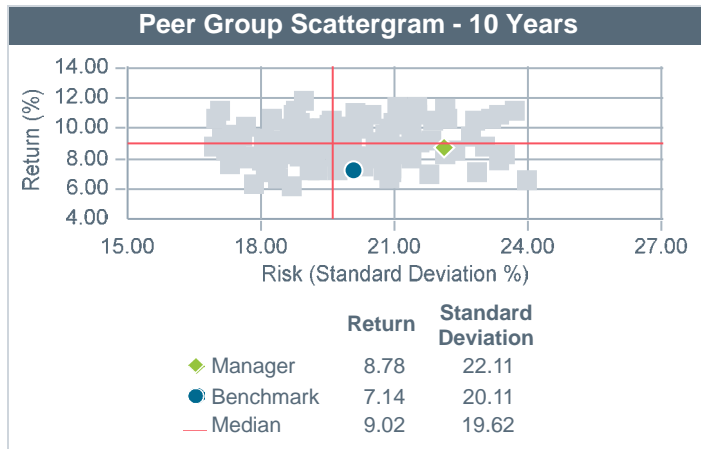
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Beta calculation requires three years of client specific monthly performance history.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	4.47	18.57	10.67	14.29	14.37	N/A	12.09	0.98	13.25	33.10	16.48
Benchmark	4.48	18.54	10.63	14.27	14.35	7.55	12.05	0.92	13.24	33.11	16.42
Difference	-0.01	0.03	0.04	0.02	0.02	N/A	0.04	0.06	0.01	-0.01	0.06
Peer Group Median	4.61	18.63	10.55	14.19	14.42	7.83	10.51	1.35	13.42	32.98	15.68
Rank	59	54	47	46	53	N/A	30	55	53	49	40
Population	269	268	263	248	230	207	296	314	336	355	362



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

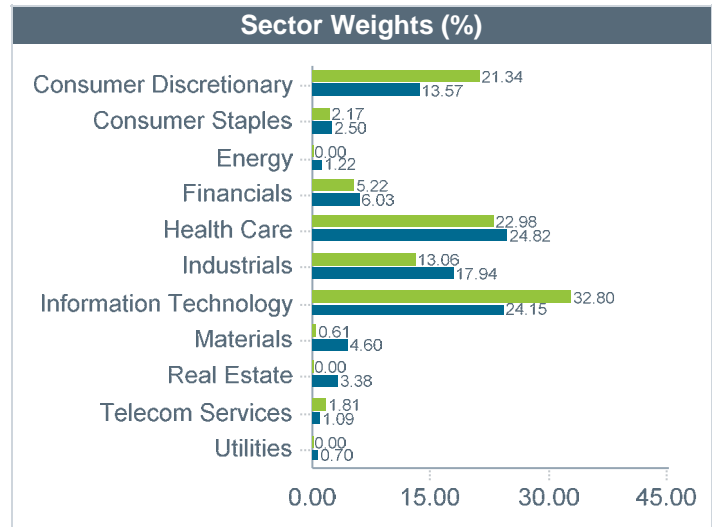
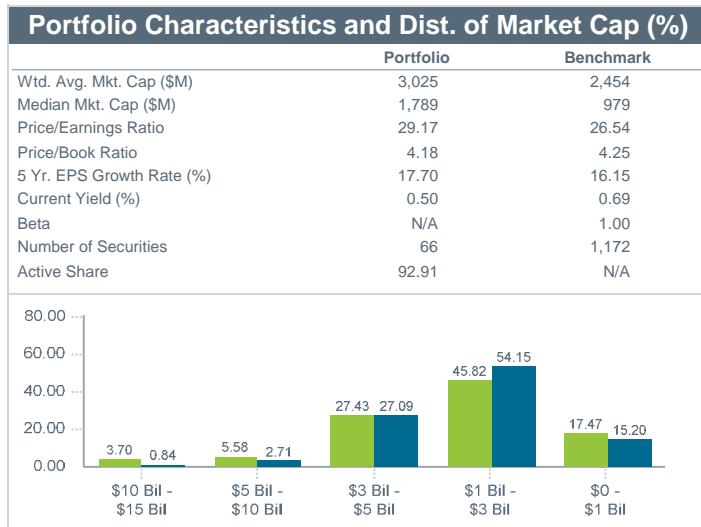
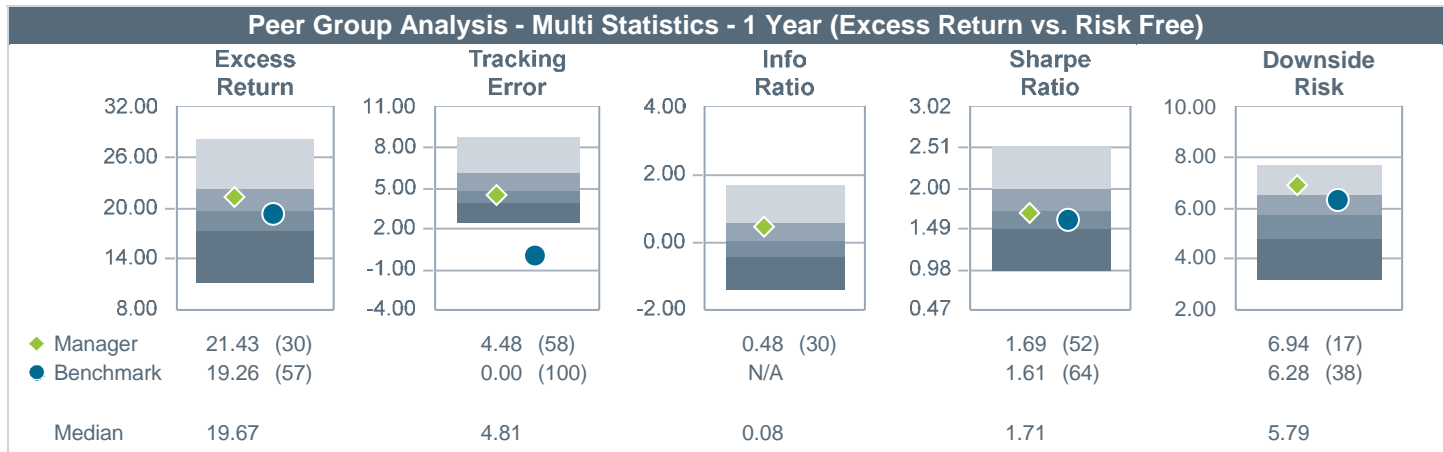
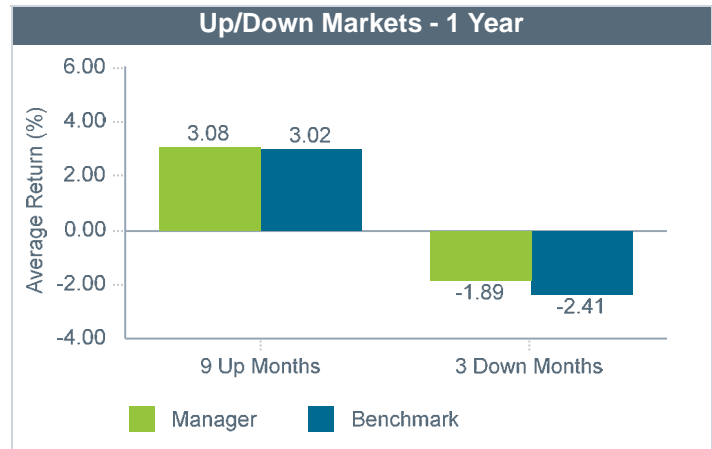
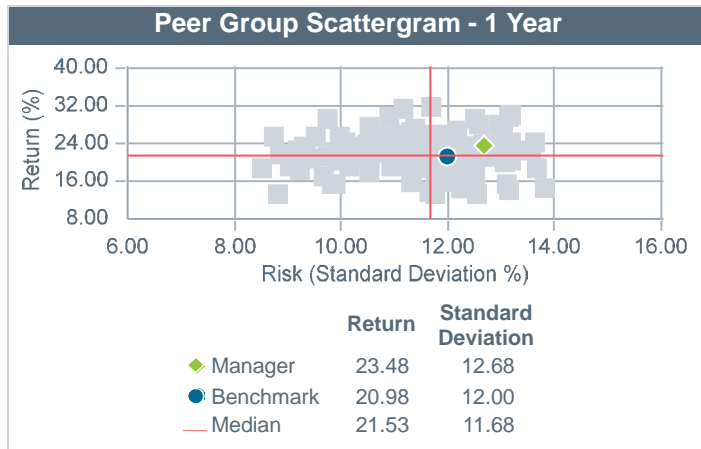
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.28	20.51	11.17	14.82	14.55	8.78	29.11	-6.06	5.04	42.70	22.43
Benchmark	5.11	20.55	12.12	13.27	12.80	7.14	31.74	-7.47	4.22	34.52	18.05
Difference	1.17	-0.04	-0.95	1.55	1.75	1.64	-2.63	1.41	0.82	8.18	4.38
Peer Group Median	5.30	20.48	12.09	14.82	14.27	9.00	26.10	-4.31	5.71	38.09	17.48
Rank	29	50	66	51	43	57	30	70	58	21	17
Population	213	211	205	196	185	165	228	238	250	252	260



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



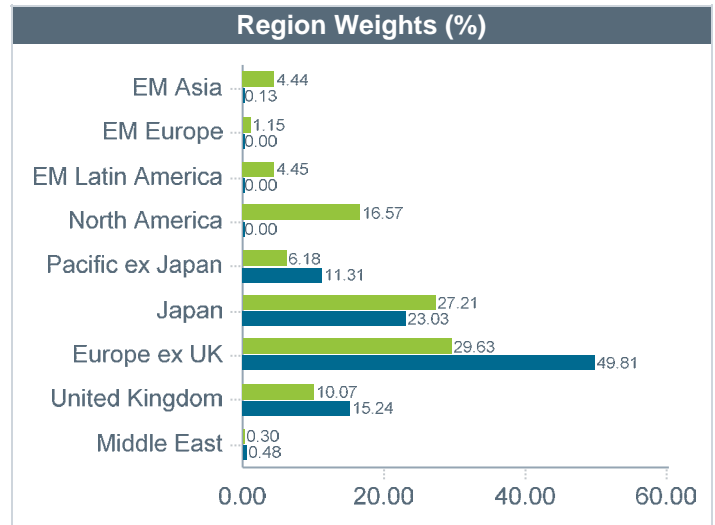
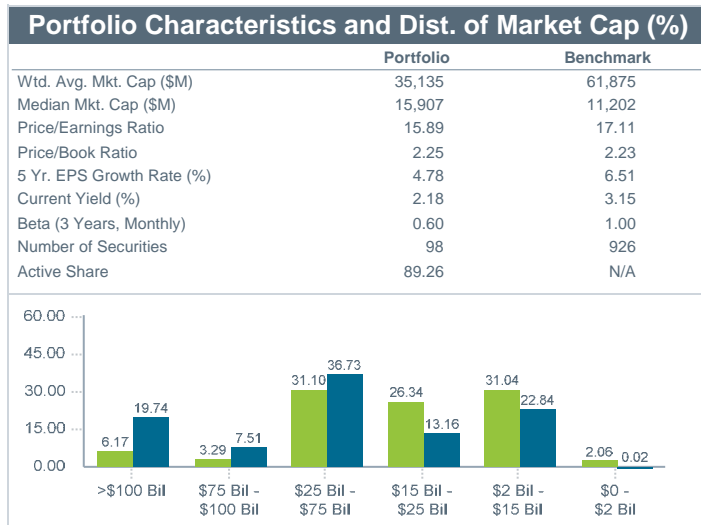
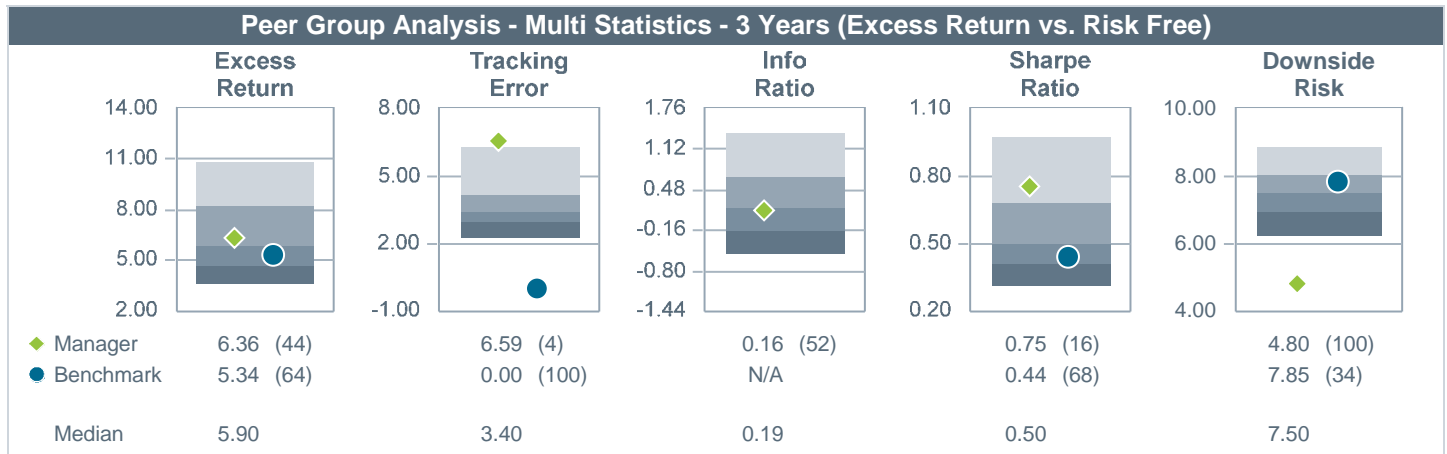
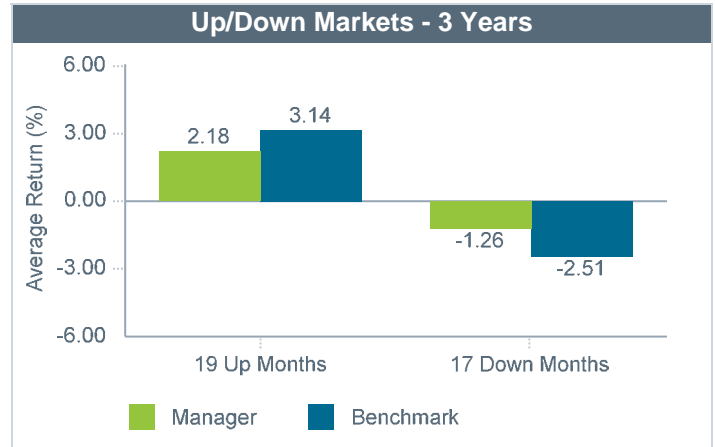
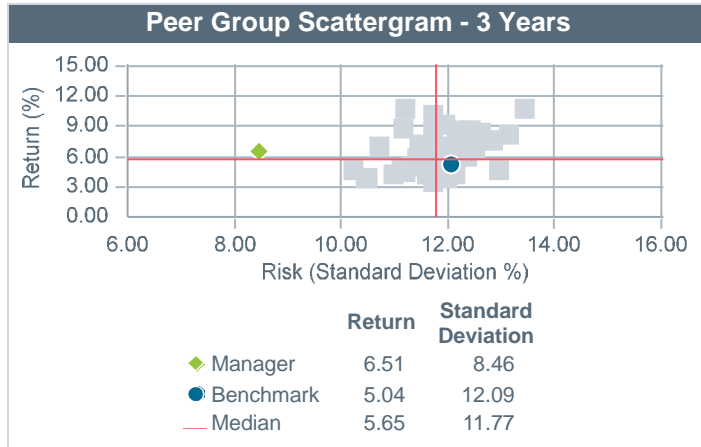
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	3.75	23.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	6.22	20.98	12.17	14.28	14.17	8.47	11.32	-1.38	5.60	43.30	14.59
Difference	-2.47	2.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Peer Group Median	5.92	21.53	12.55	14.58	15.04	8.58	11.40	-0.74	4.03	45.47	14.70
Rank	84	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Population	168	168	163	158	153	135	184	203	213	219	227



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

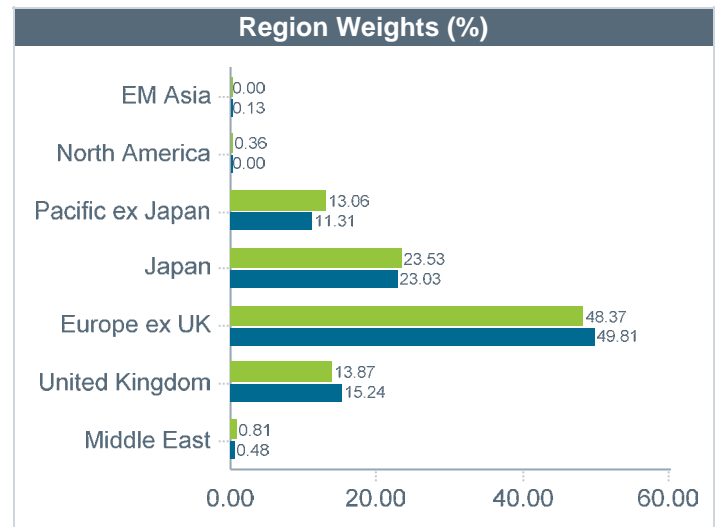
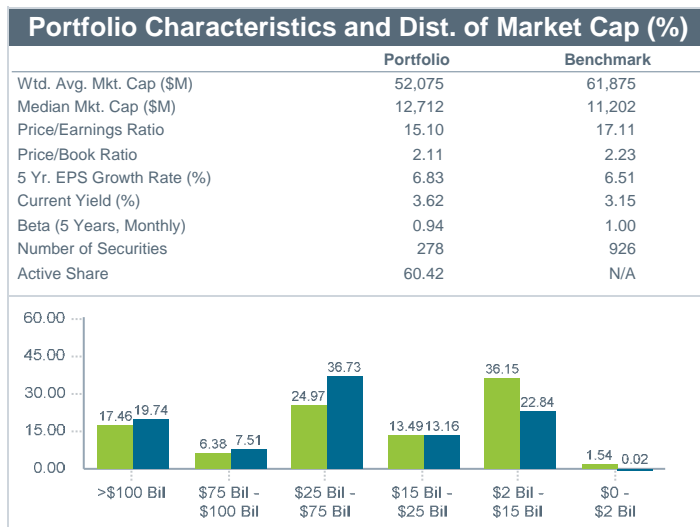
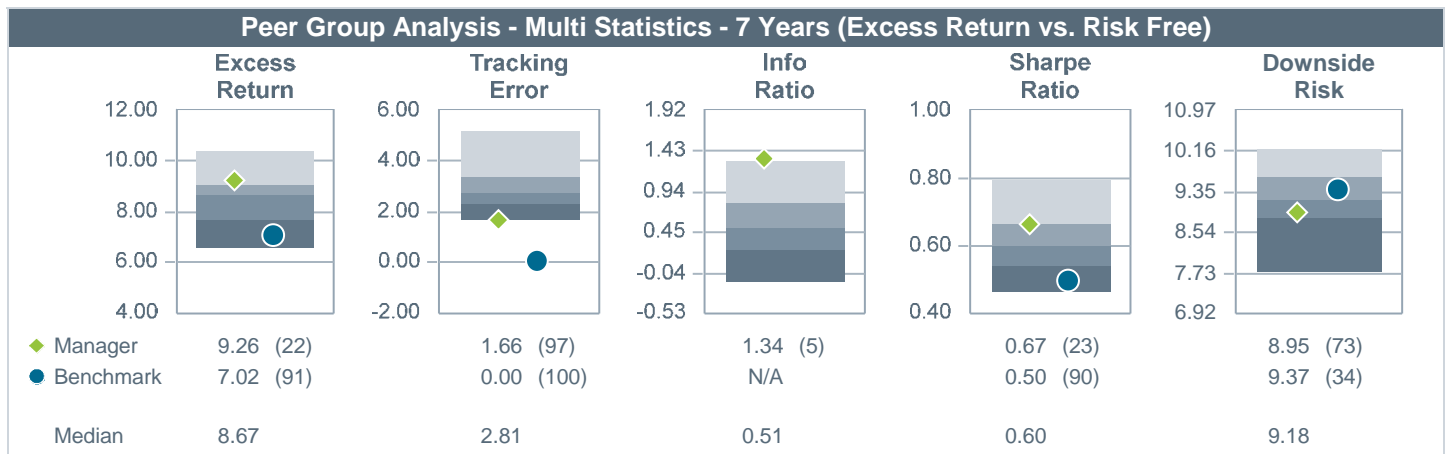
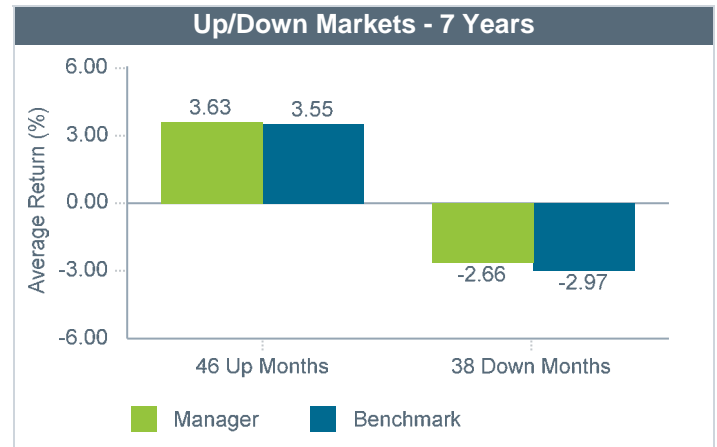
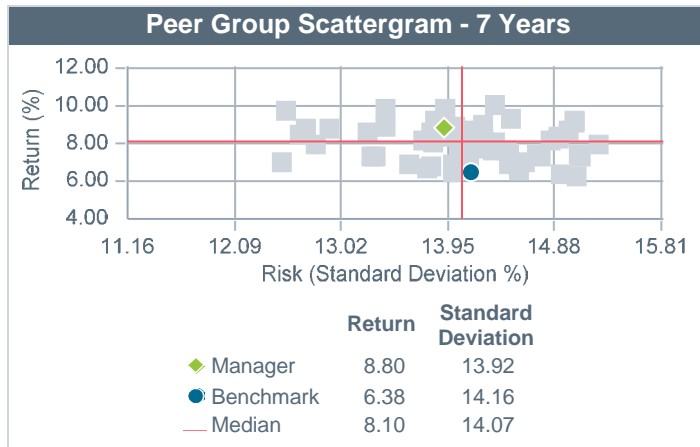


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	2.90	9.08	6.51	N/A	N/A	N/A	6.37	2.87	N/A	N/A	N/A
Benchmark	5.40	19.10	5.04	8.38	6.38	1.34	1.00	-0.81	-4.90	22.78	17.32
Difference	-2.50	-10.02	1.47	N/A	N/A	N/A	5.37	3.68	N/A	N/A	N/A
Peer Group Median	5.65	19.93	5.65	9.28	7.65	2.61	3.15	-1.05	-4.30	24.18	17.19
Rank	96	100	42	N/A	N/A	N/A	16	22	N/A	N/A	N/A
Population	60	60	59	57	54	47	65	76	77	75	74



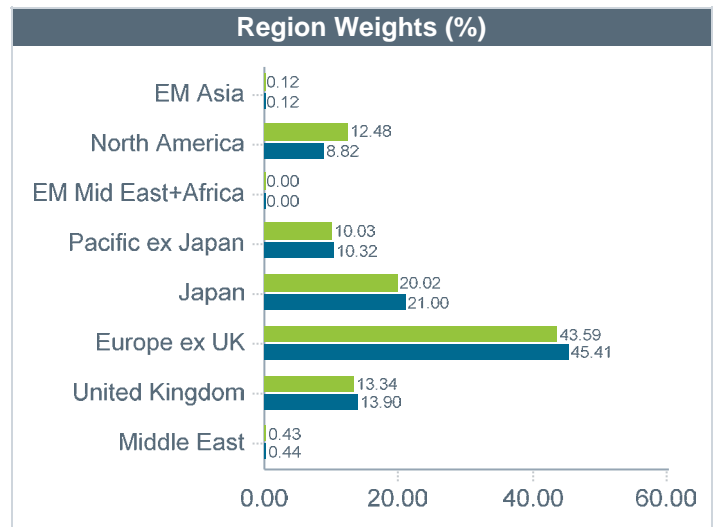
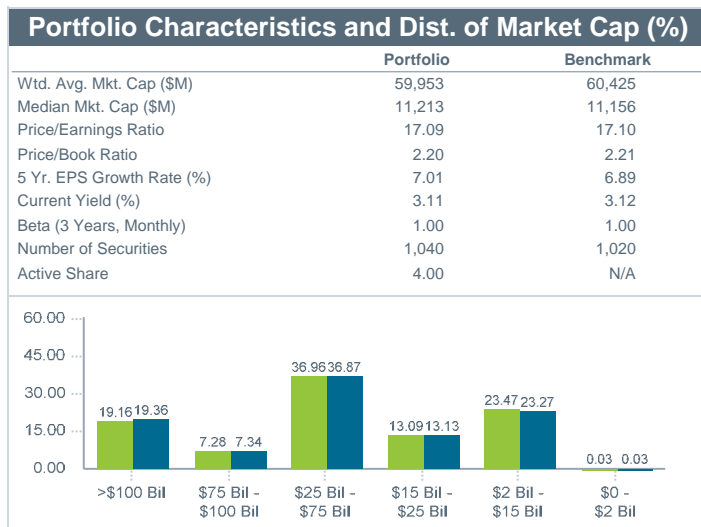
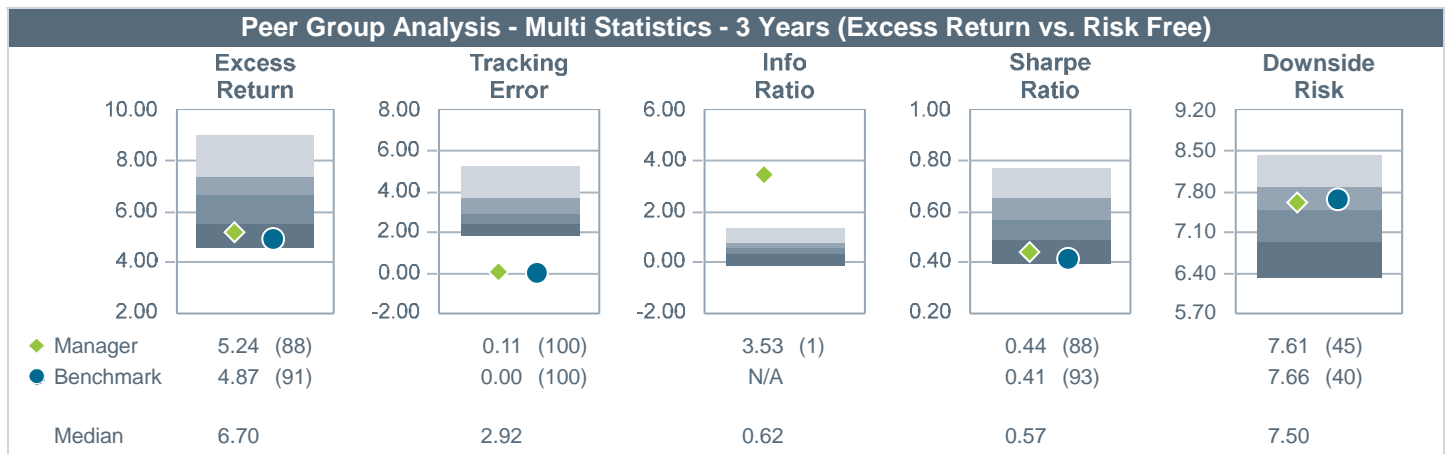
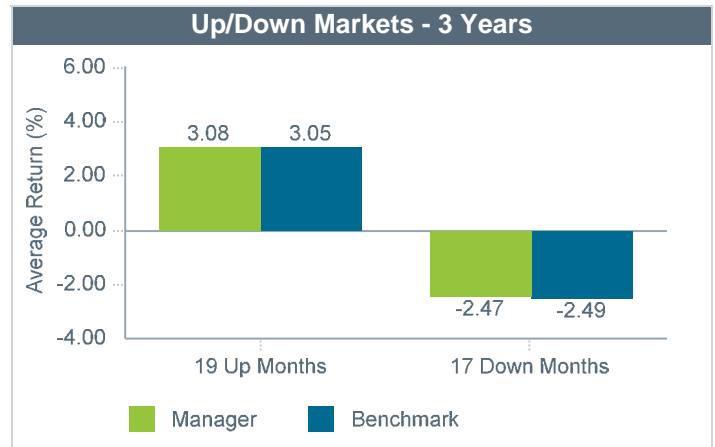
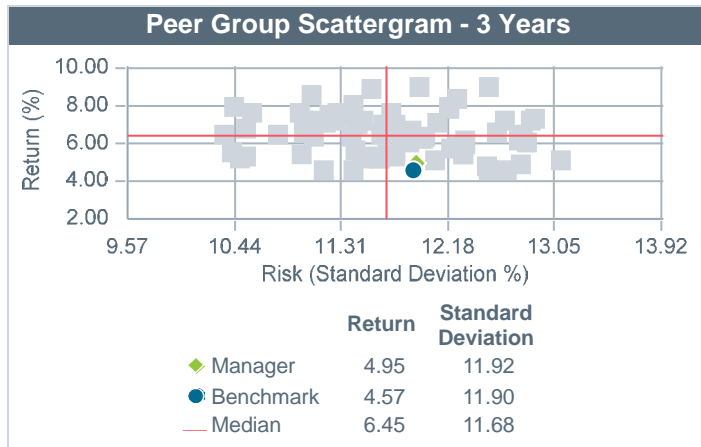
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.41	20.86	8.22	10.66	8.80	N/A	3.31	4.81	-4.05	24.75	22.05
Benchmark	5.40	19.10	5.04	8.38	6.38	1.34	1.00	-0.81	-4.90	22.78	17.32
Difference	0.01	1.76	3.18	2.28	2.42	N/A	2.31	5.62	0.85	1.97	4.73
Peer Group Median	5.79	20.04	6.45	9.98	8.10	2.68	0.82	1.23	-3.81	24.93	19.73
Rank	65	39	11	22	23	N/A	16	14	53	53	24
Population	98	98	96	93	86	74	106	110	106	102	99



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

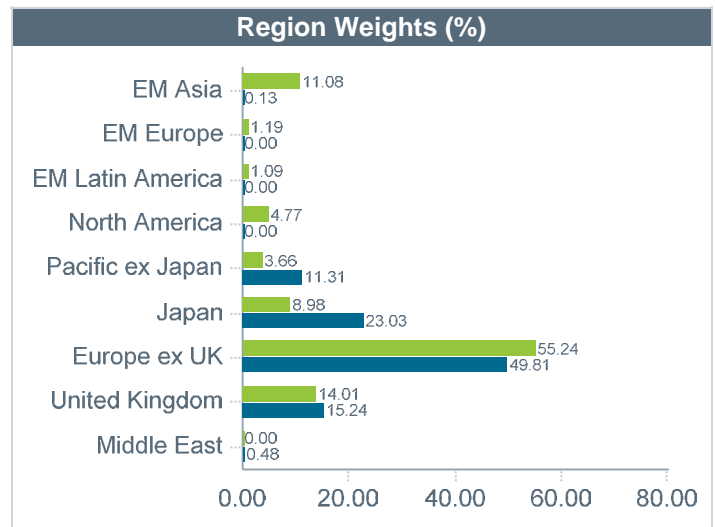
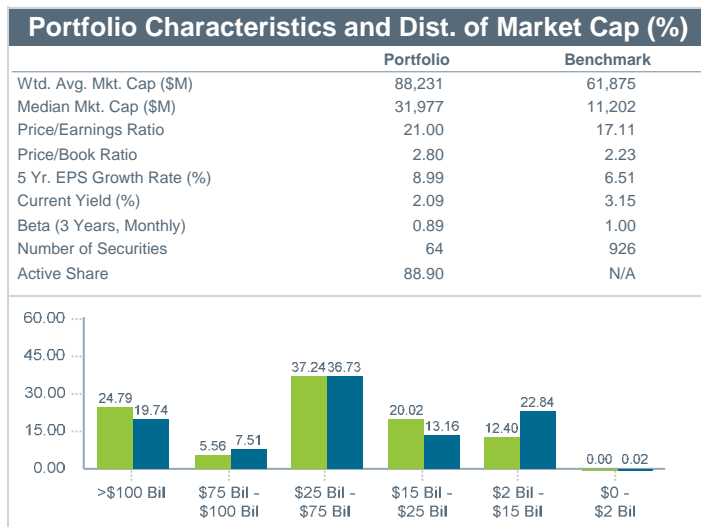
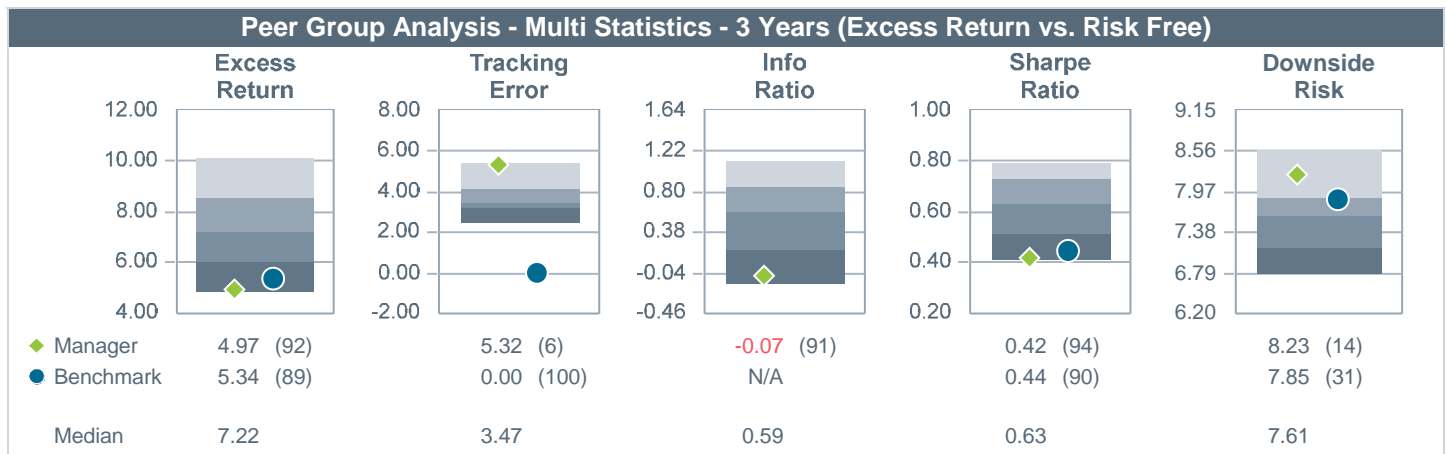
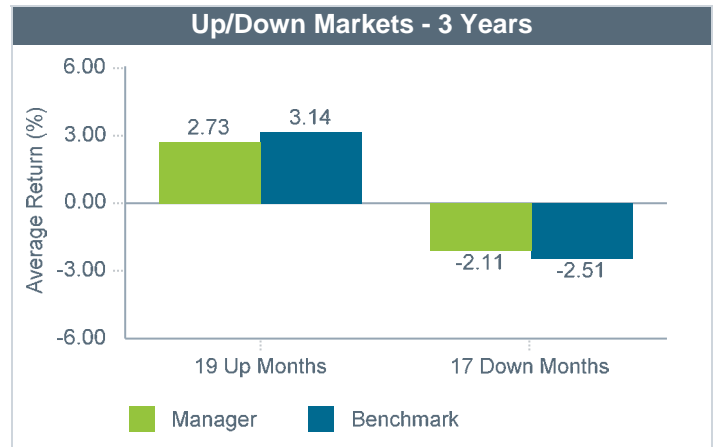
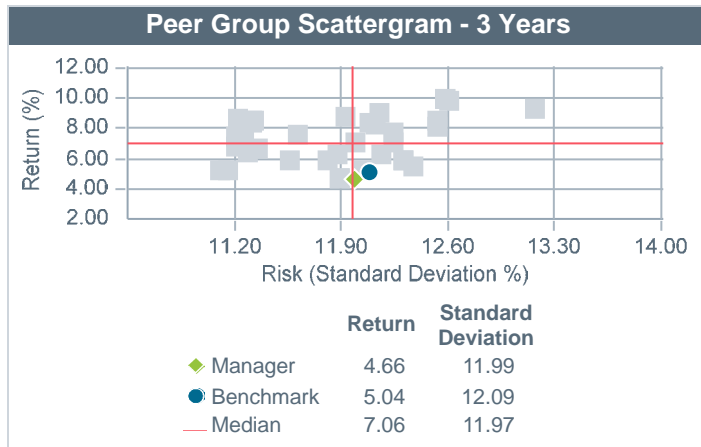
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.70	19.20	4.95	N/A	N/A	N/A	3.15	-2.71	-3.98	N/A	N/A
Benchmark	5.62	18.73	4.57	7.81	6.02	1.28	2.75	-3.04	-4.32	21.02	16.41
Difference	0.08	0.47	0.38	N/A	N/A	N/A	0.40	0.33	0.34	N/A	N/A
Peer Group Median	5.79	20.04	6.45	9.98	8.10	2.68	0.82	1.23	-3.81	24.93	19.73
Rank	55	65	87	N/A	N/A	N/A	19	89	53	N/A	N/A
Population	98	98	96	93	86	74	106	110	106	102	99



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



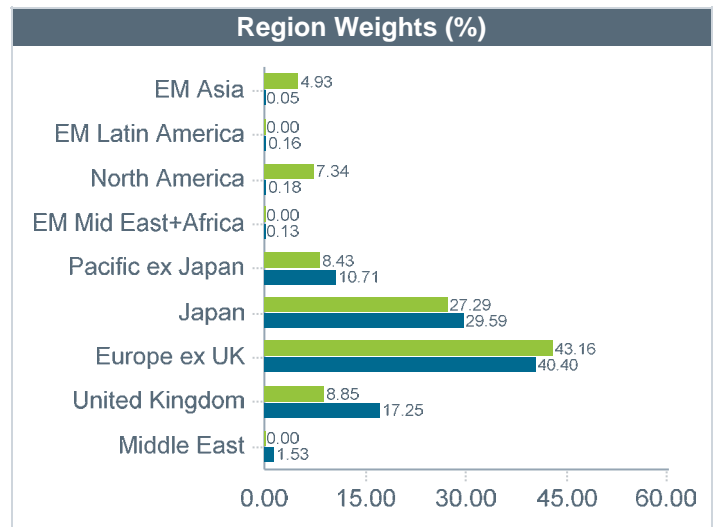
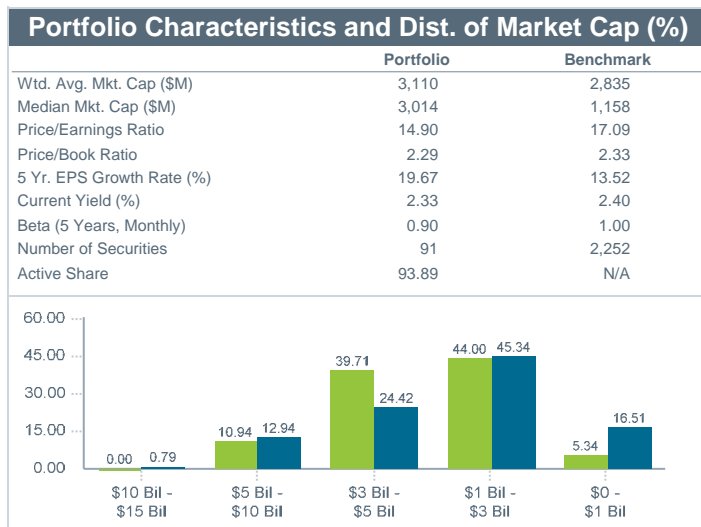
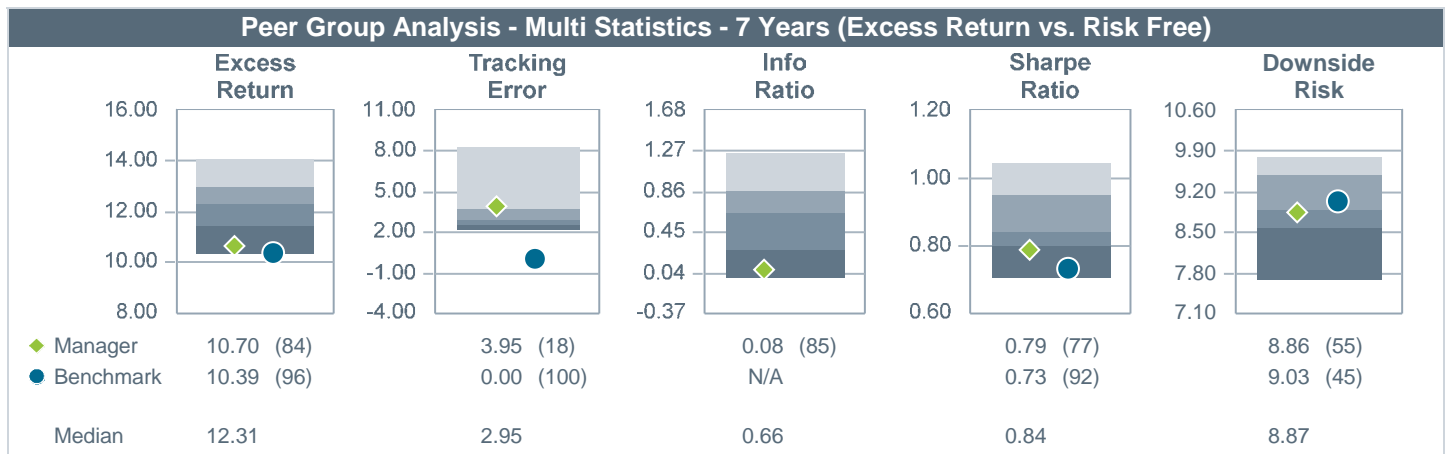
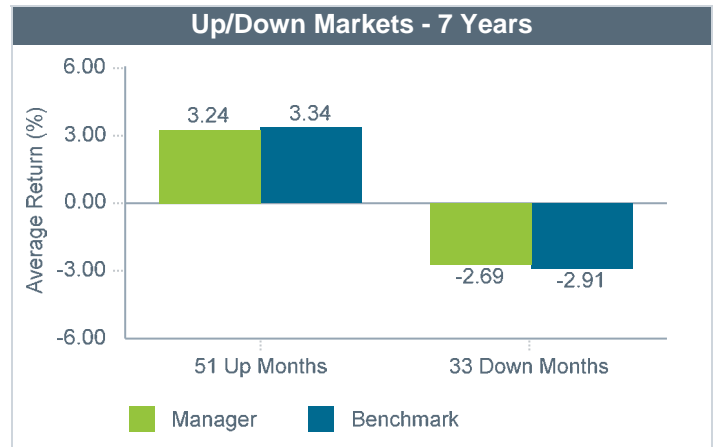
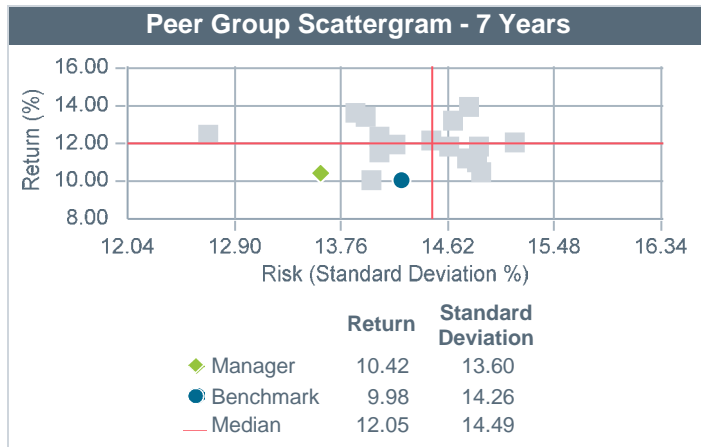
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	6.02	17.41	4.66	N/A	N/A	N/A	-8.50	-2.80	N/A	N/A	N/A
Benchmark	5.40	19.10	5.04	8.38	6.38	1.34	1.00	-0.81	-4.90	22.78	17.32
Difference	0.62	-1.69	-0.38	N/A	N/A	N/A	-9.50	-1.99	N/A	N/A	N/A
Peer Group Median	6.14	18.92	7.06	8.89	7.62	3.09	-0.04	2.58	-4.90	21.13	20.29
Rank	52	74	94	N/A	N/A	N/A	99	93	N/A	N/A	N/A
Population	46	46	46	45	45	42	47	53	53	52	52



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



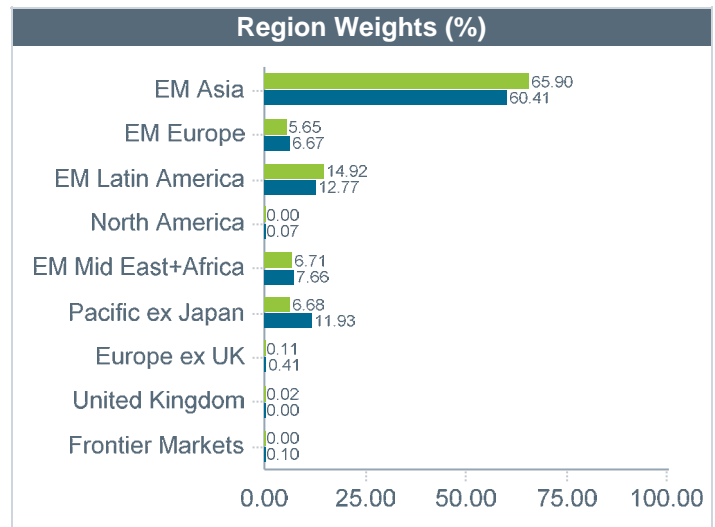
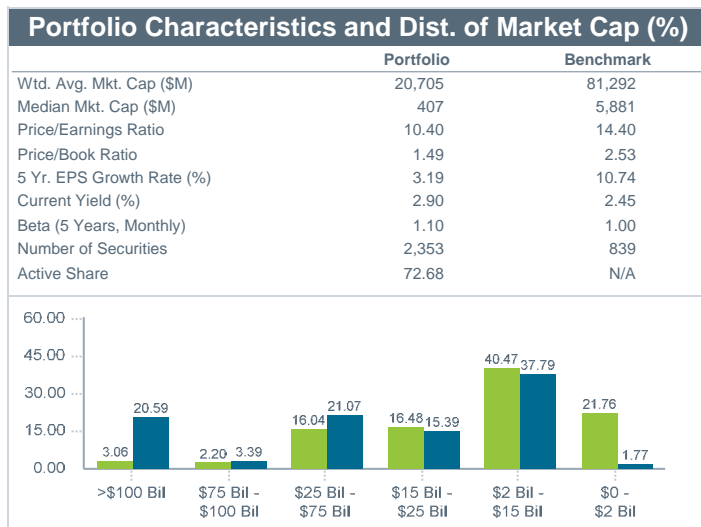
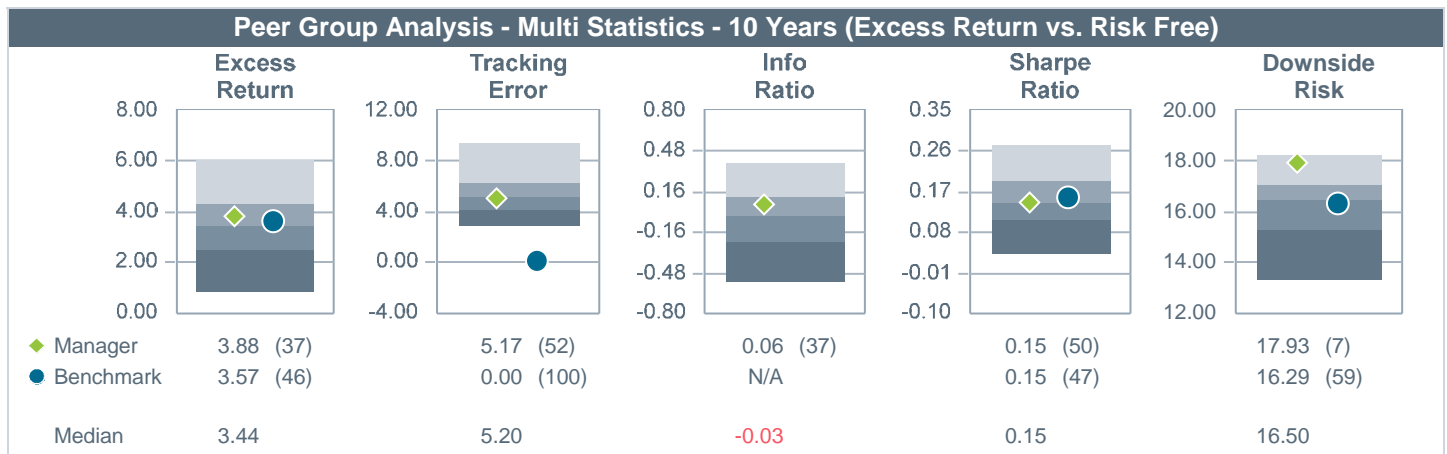
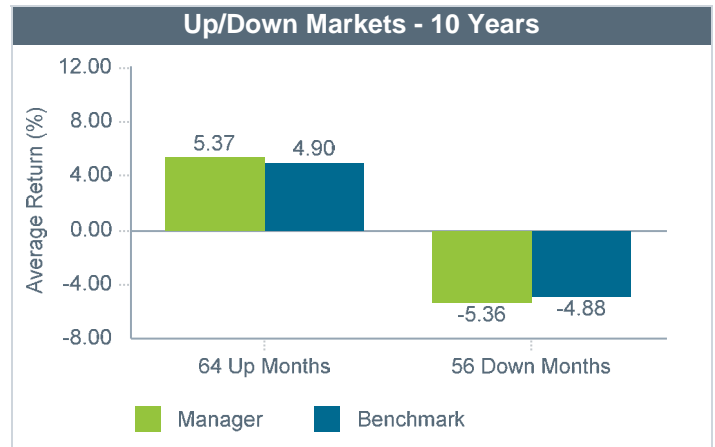
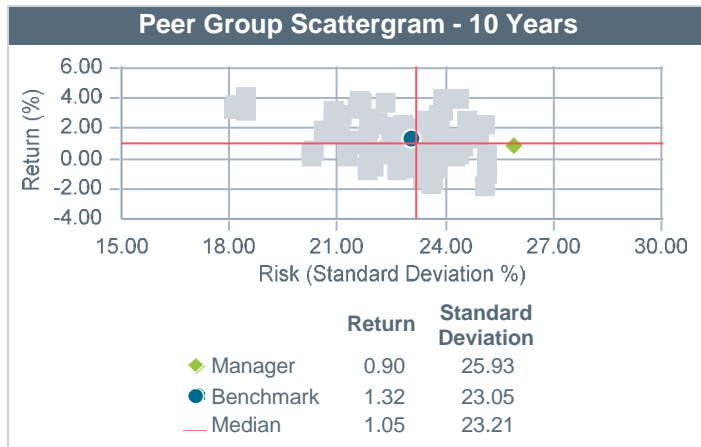
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	7.72	16.80	9.14	12.29	10.42	N/A	-7.19	10.61	1.69	29.94	22.68
Benchmark	7.46	21.84	11.13	12.85	9.98	4.63	2.18	9.59	-4.95	29.30	20.00
Difference	0.26	-5.04	-1.99	-0.56	0.44	N/A	-9.37	1.02	6.64	0.64	2.68
Peer Group Median	8.41	23.41	11.94	14.21	12.05	5.51	1.72	10.33	-2.43	31.79	23.01
Rank	64	100	95	87	83	N/A	100	49	10	58	54
Population	41	40	33	30	23	18	39	36	33	33	29



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

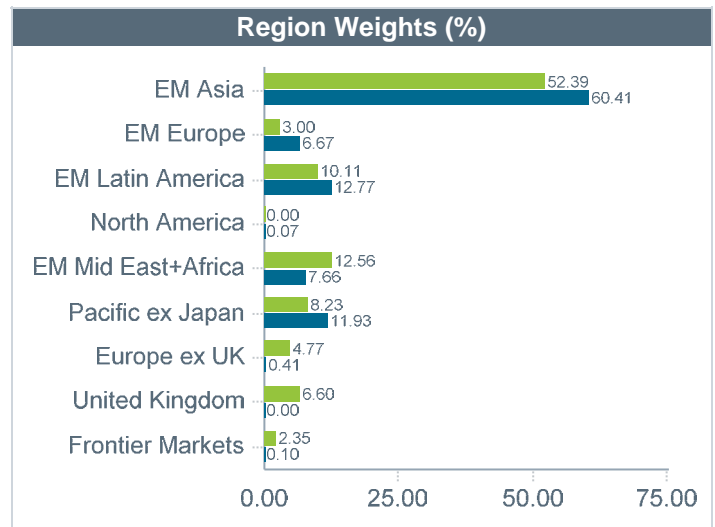
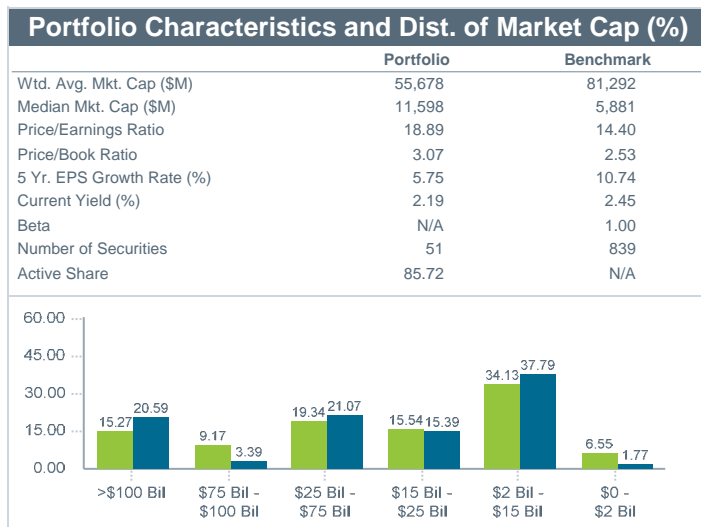
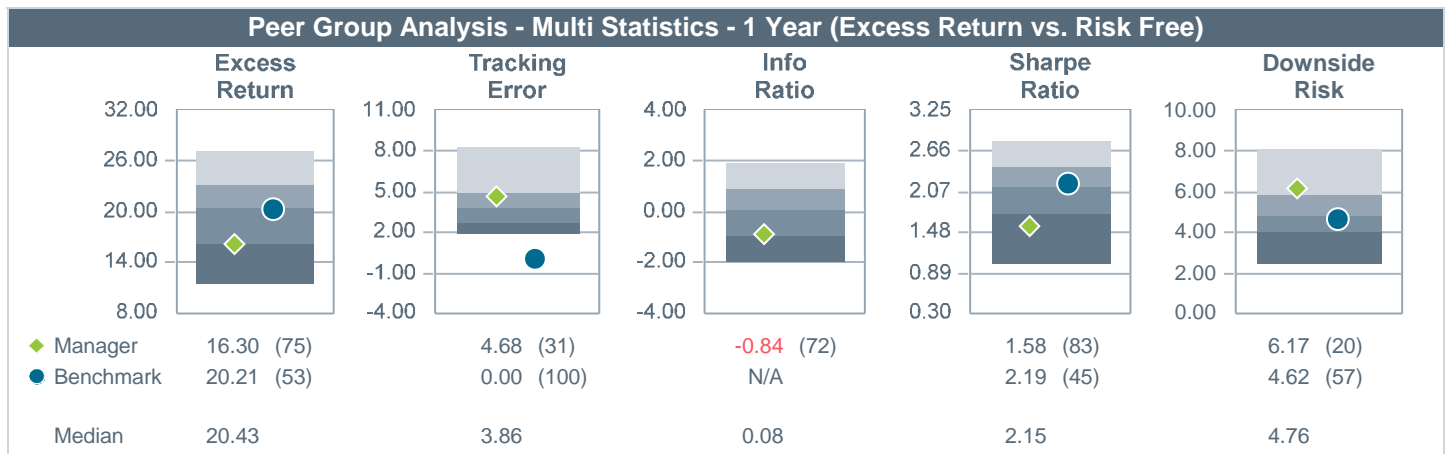
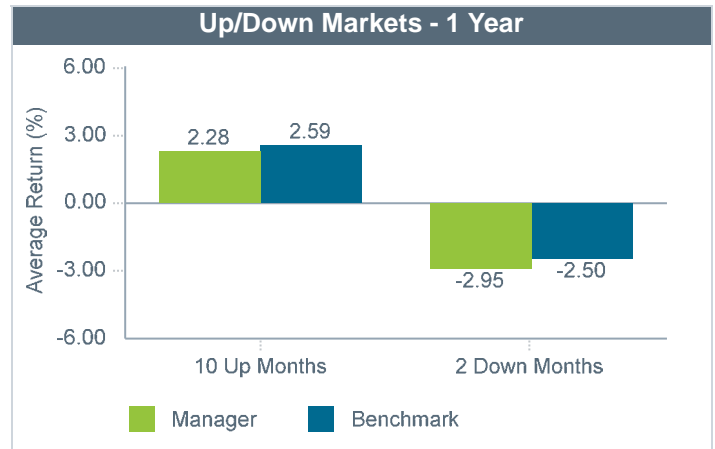
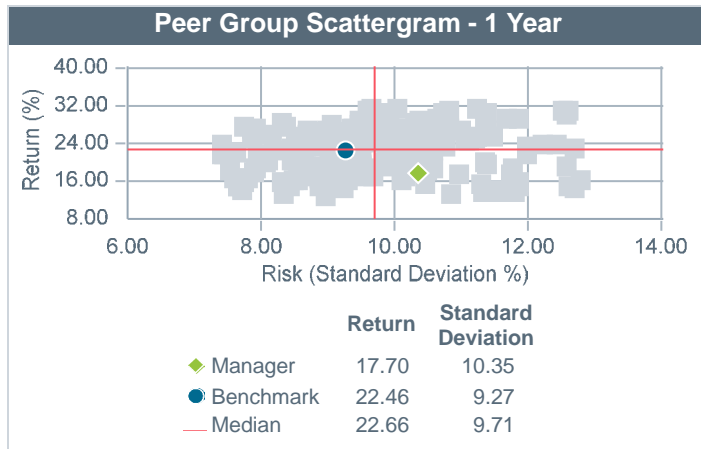


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	5.56	22.76	4.17	3.51	0.94	0.90	19.84	-18.77	-4.41	-3.80	19.36
Benchmark	7.89	22.46	4.90	3.99	2.54	1.32	11.19	-14.92	-2.19	-2.60	18.23
Difference	-2.33	0.30	-0.73	-0.48	-1.60	-0.42	8.65	-3.85	-2.22	-1.20	1.13
Peer Group Median	7.79	21.05	4.65	4.10	2.57	1.05	8.26	-14.07	-2.95	-1.42	18.78
Rank	76	36	58	65	84	55	6	84	69	69	44
Population	871	811	653	457	310	187	834	794	719	622	549



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

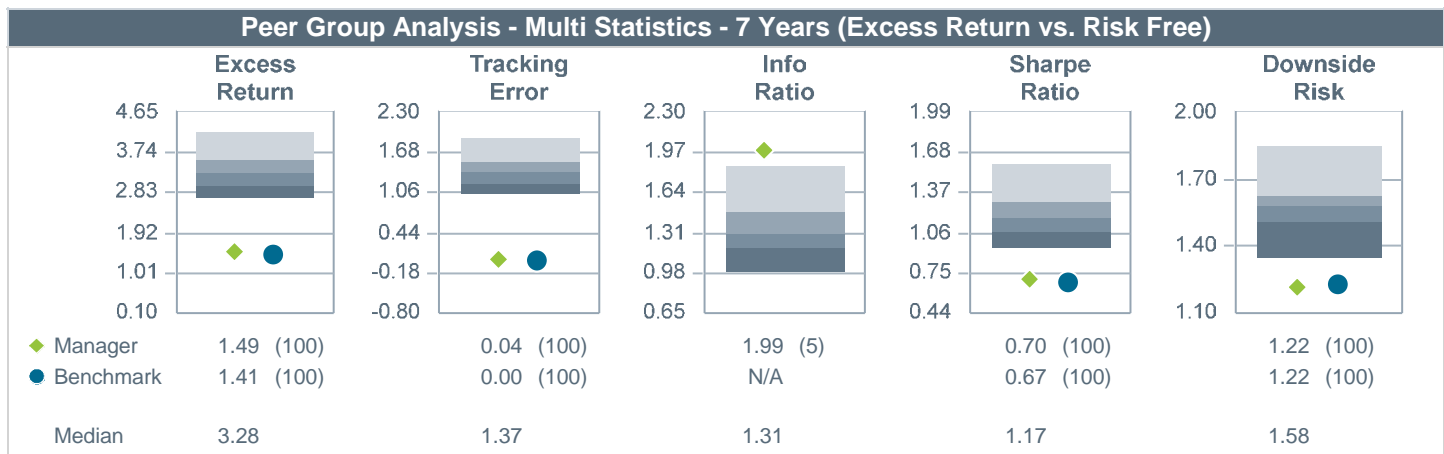
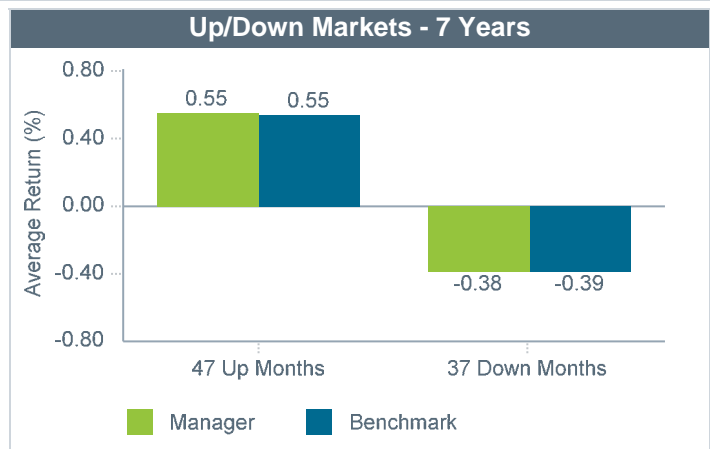
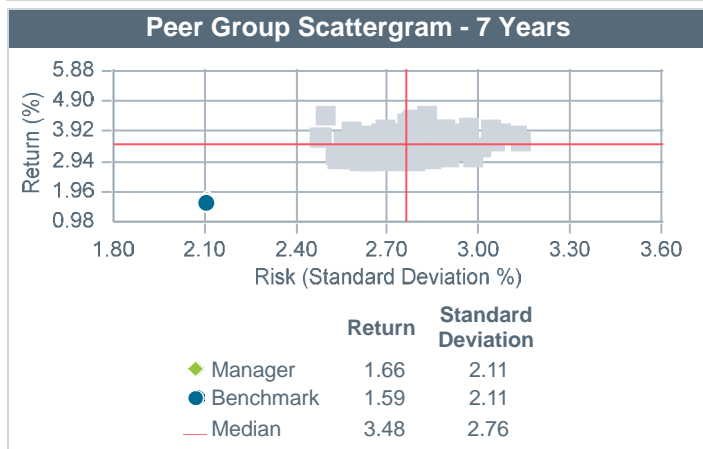
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	7.05	17.70	N/A	N/A	N/A	N/A	5.77	N/A	N/A	N/A	N/A
Benchmark	7.89	22.46	4.90	3.99	2.54	1.32	11.19	-14.92	-2.19	-2.60	18.23
Difference	-0.84	-4.76	N/A	N/A	N/A	N/A	-5.42	N/A	N/A	N/A	N/A
Peer Group Median	7.56	22.66	5.85	5.73	4.35	2.74	10.07	-12.66	-0.18	0.89	20.53
Rank	56	76	N/A	N/A	N/A	N/A	78	N/A	N/A	N/A	N/A
Population	278	277	263	215	156	118	299	319	317	302	275



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 monthly performance history.

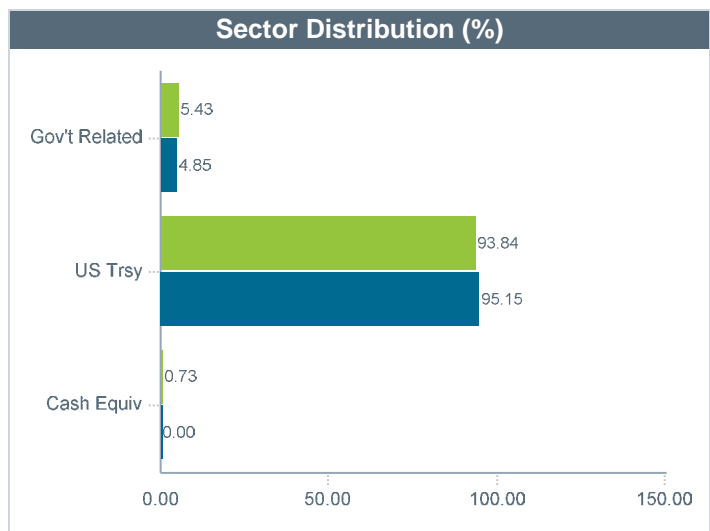


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.36	-0.59	1.66	1.07	1.66	N/A	1.13	1.27	2.59	-1.21	1.81
Benchmark	0.34	-0.66	1.58	1.01	1.59	3.08	1.05	1.18	2.52	-1.25	1.73
Difference	0.02	0.07	0.08	0.06	0.07	N/A	0.08	0.09	0.07	0.04	0.08
Peer Group Median	0.92	0.61	3.02	2.46	3.48	4.80	3.10	0.82	6.15	-1.56	5.85
Rank	100	100	100	100	100	N/A	100	15	100	30	100
Population	144	144	138	135	132	128	155	158	172	184	193



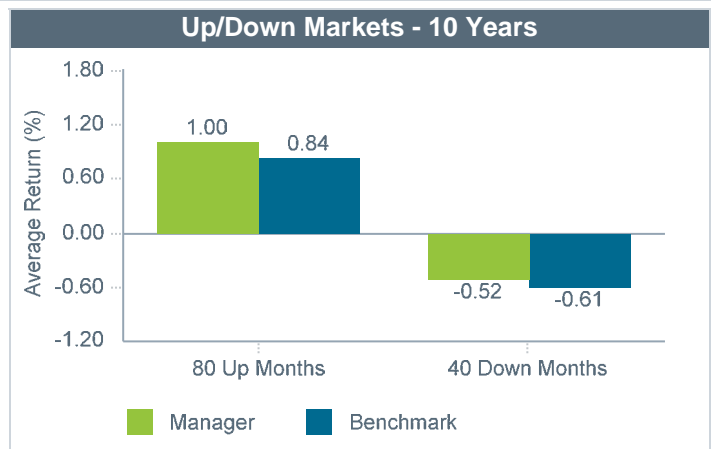
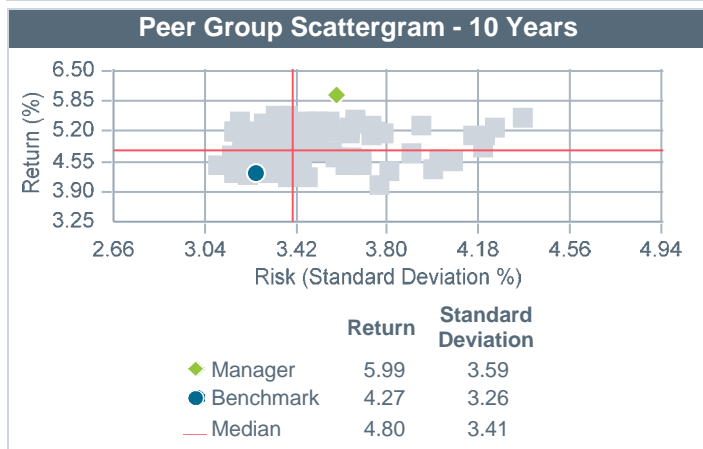
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	3.81	3.85
Spread Duration	0.16	3.87
Avg. Maturity	4.09	4.09
Avg. Quality	Aaa	Aaa/Aa1
Yield To Maturity (%)	1.79	1.78
Coupon Rate (%)	2.30	1.87
Current Yield (%)	2.22	N/A
Holdings Count	199	464



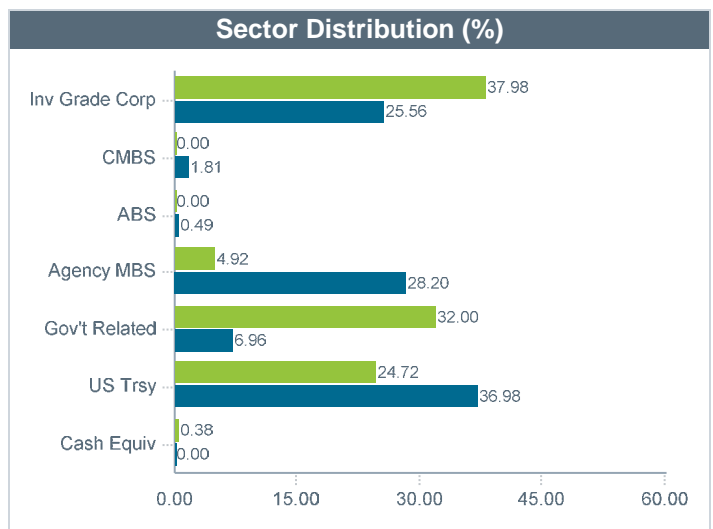
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.46	0.27	3.13	3.19	4.27	5.99	3.16	0.83	8.01	0.08	10.46
Benchmark	0.85	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	-2.02	4.21
Difference	-0.39	0.20	0.42	1.13	1.32	1.72	0.51	0.28	2.04	2.10	6.25
Peer Group Median	0.92	0.61	3.02	2.46	3.48	4.80	3.10	0.82	6.15	-1.56	5.85
Rank	100	70	44	10	11	1	47	48	3	6	2
Population	144	144	138	135	132	128	155	158	172	184	193



Portfolio Characteristics

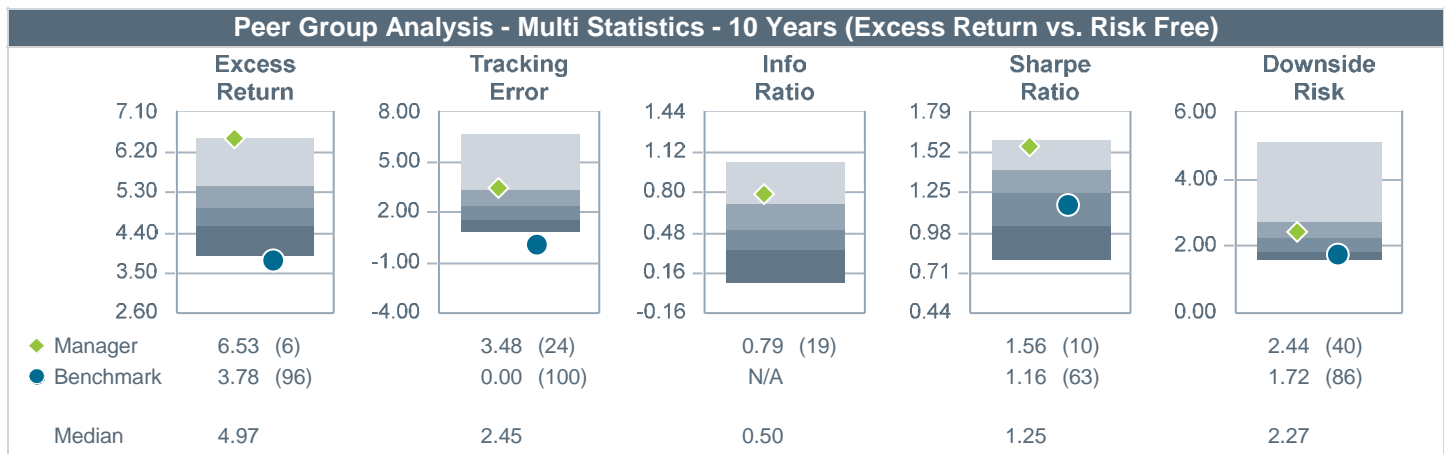
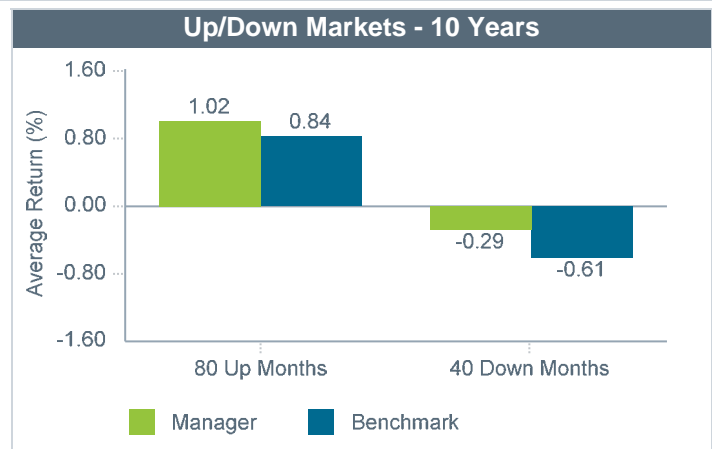
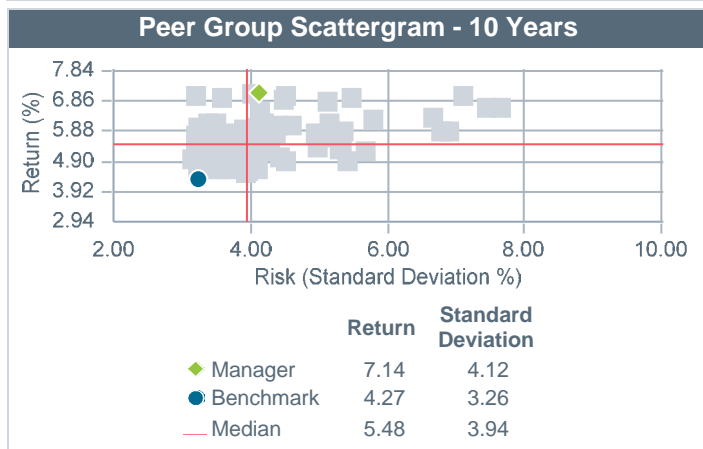
	Portfolio	Benchmark
Effective Duration	4.74	5.96
Spread Duration	0.30	6.14
Avg. Maturity	6.80	8.25
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	1.80	2.55
Coupon Rate (%)	2.10	3.06
Current Yield (%)	2.06	N/A
Holdings Count	25	9,547



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

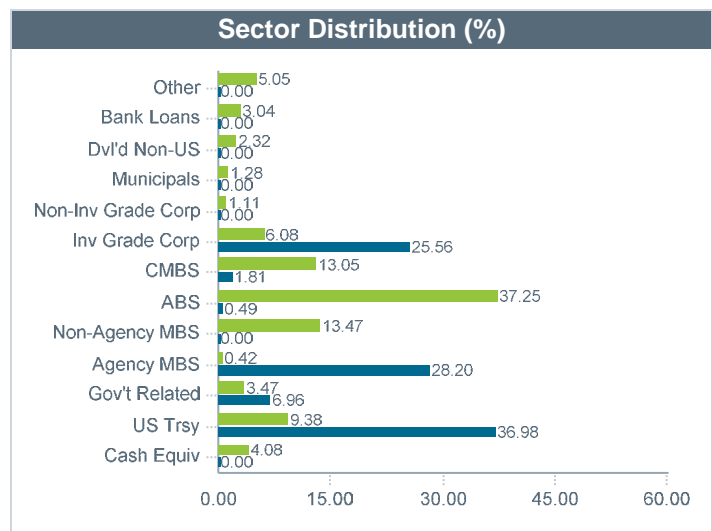


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	1.21	4.29	5.19	5.84	6.83	7.14	6.82	1.95	8.55	3.27	13.36
Benchmark	0.85	0.07	2.71	2.06	2.95	4.27	2.65	0.55	5.97	-2.02	4.21
Difference	0.36	4.22	2.48	3.78	3.88	2.87	4.17	1.40	2.58	5.29	9.15
Peer Group Median	1.17	1.96	3.43	3.10	4.28	5.48	4.74	0.27	6.19	-0.49	8.16
Rank	45	14	5	3	3	4	20	1	2	6	8
Population	148	148	148	144	137	118	157	166	176	183	188



Portfolio Characteristics

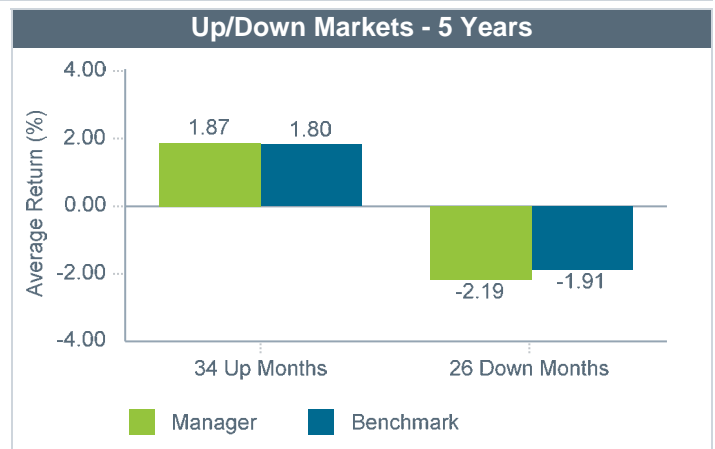
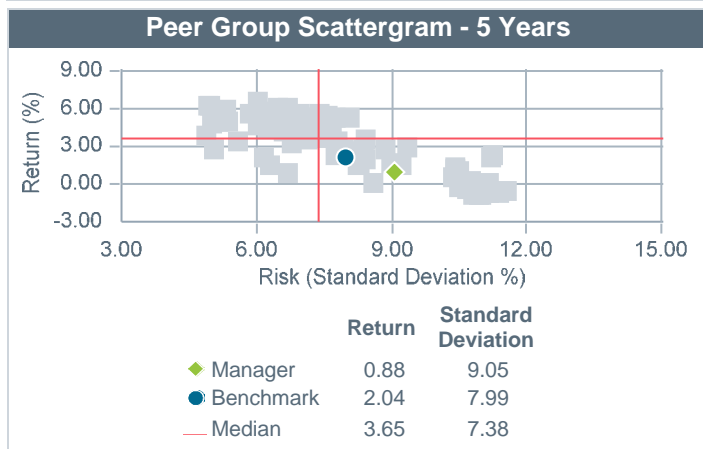
	Portfolio	Benchmark
Effective Duration	4.32	5.96
Spread Duration	4.43	6.14
Avg. Maturity	8.13	8.25
Avg. Quality	A2	Aa1/Aa2
Yield To Maturity (%)	3.24	2.55
Coupon Rate (%)	1.97	3.06
Current Yield (%)	3.14	N/A
Holdings Count	818	9,547



Performance shown is gross of fees and product specific prior to client inception. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of Derivatives, Military Housing, net FX Exposure, Preferreds, and Private Placements.

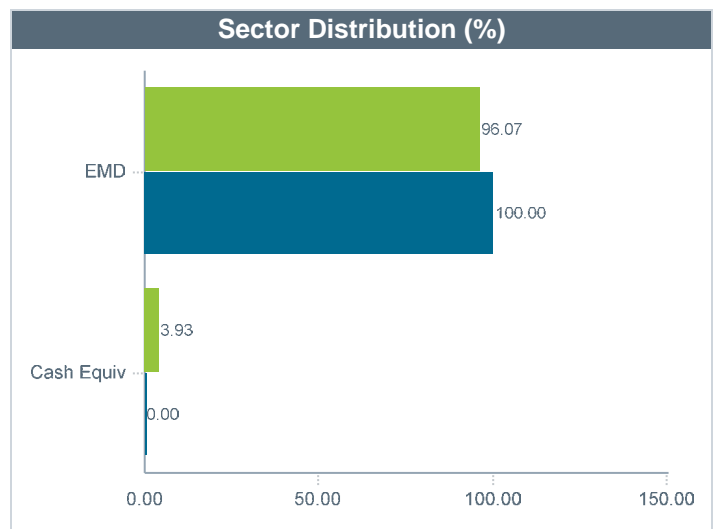


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	3.73	7.00	3.05	0.88	N/A	N/A	11.08	-7.78	-2.51	-9.87	N/A
Benchmark	3.04	6.11	3.32	2.04	3.45	5.62	10.12	-7.13	0.48	-6.64	16.97
Difference	0.69	0.89	-0.27	-1.16	N/A	N/A	0.96	-0.65	-2.99	-3.23	N/A
Peer Group Median	3.32	7.80	5.11	3.65	5.67	7.15	11.09	-2.90	1.39	-5.94	18.91
Rank	33	63	68	75	N/A	N/A	51	70	70	94	N/A
Population	138	137	130	115	85	72	157	168	169	155	146



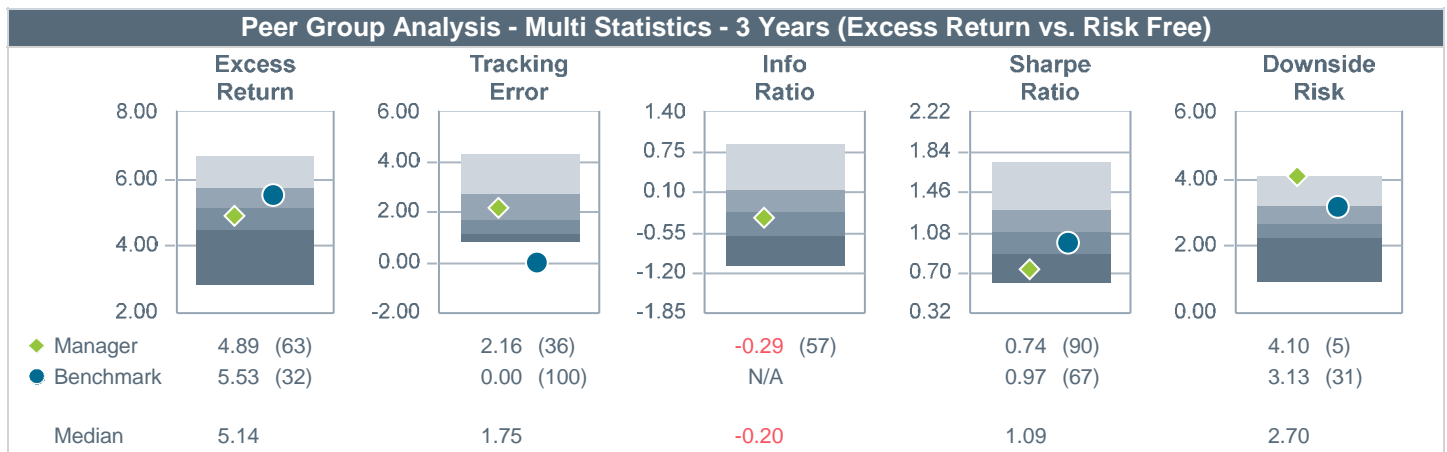
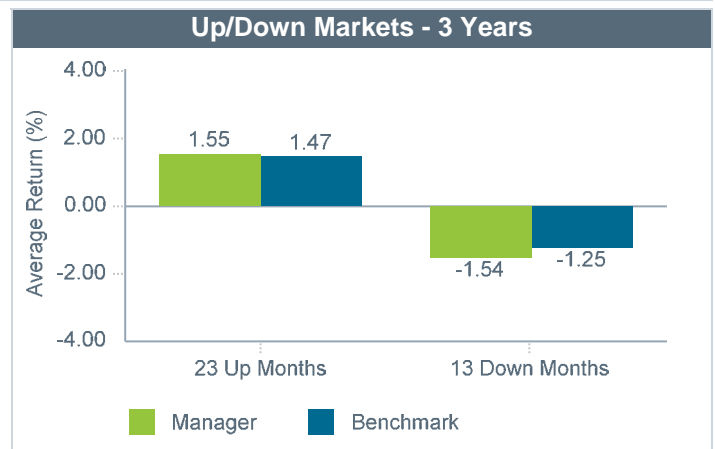
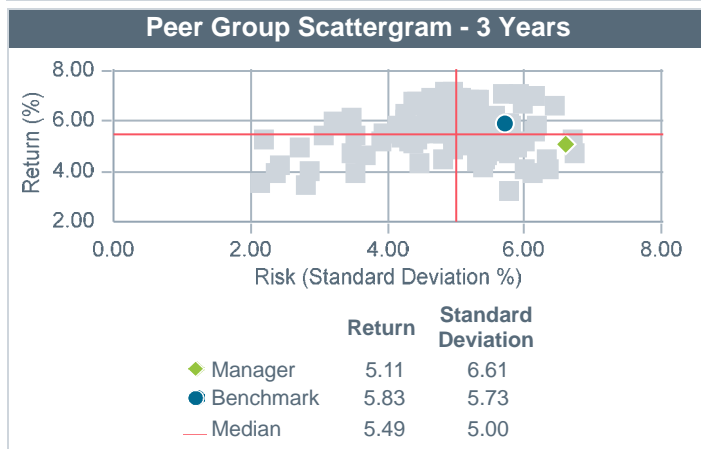
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.54	5.74
Spread Duration	5.42	N/A
Avg. Maturity	9.54	8.84
Avg. Quality	Ba1	Ba1
Yield To Maturity (%)	6.41	5.37
Coupon Rate (%)	6.66	6.25
Current Yield (%)	6.59	6.00
Holdings Count	403	N/A



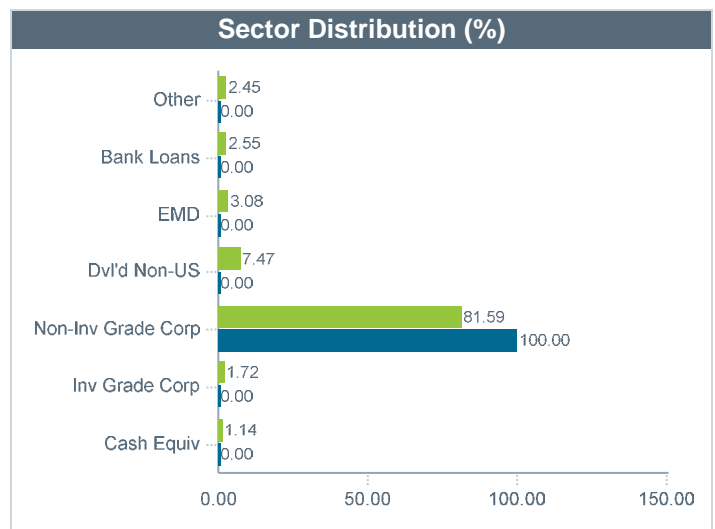
Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	1.15	9.51	5.11	N/A	N/A	N/A	17.25	-5.60	1.49	N/A	N/A
Benchmark	1.98	8.88	5.83	6.36	7.45	7.84	17.13	-4.47	2.45	7.44	15.81
Difference	-0.83	0.63	-0.72	N/A	N/A	N/A	0.12	-1.13	-0.96	N/A	N/A
Peer Group Median	2.00	8.56	5.49	6.22	7.32	7.51	14.12	-2.16	2.60	7.58	15.33
Rank	91	25	65	N/A	N/A	N/A	16	89	75	N/A	N/A
Population	171	171	163	151	126	108	190	195	201	199	191



Portfolio Characteristics

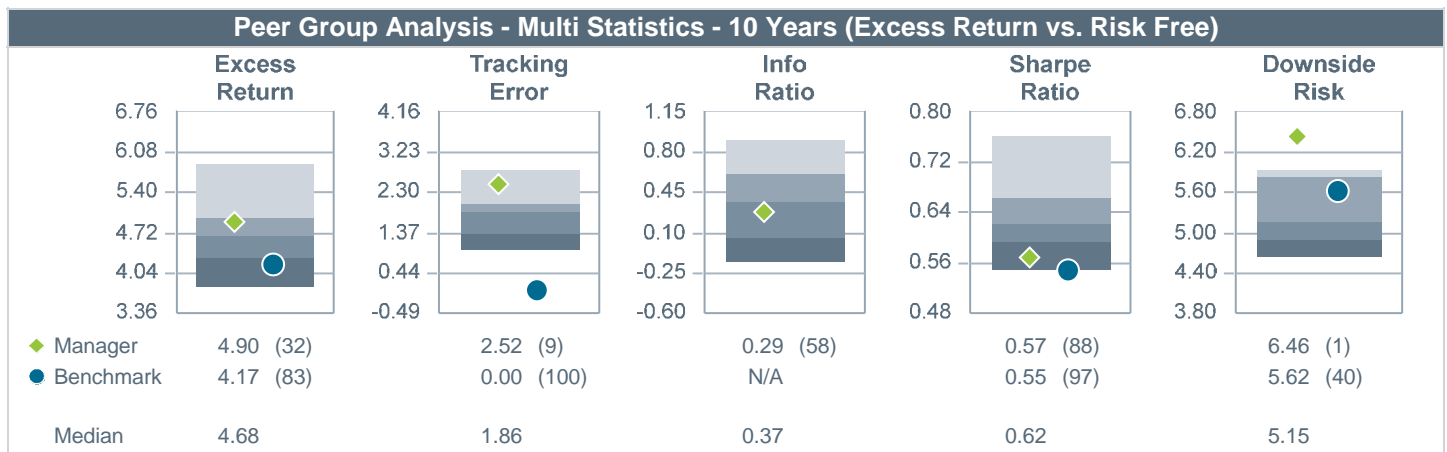
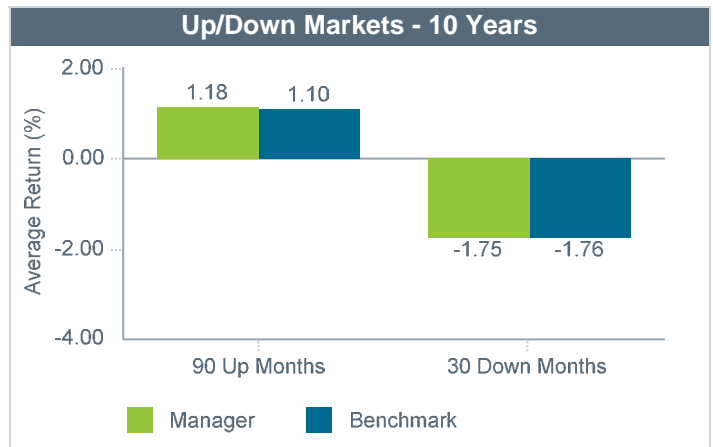
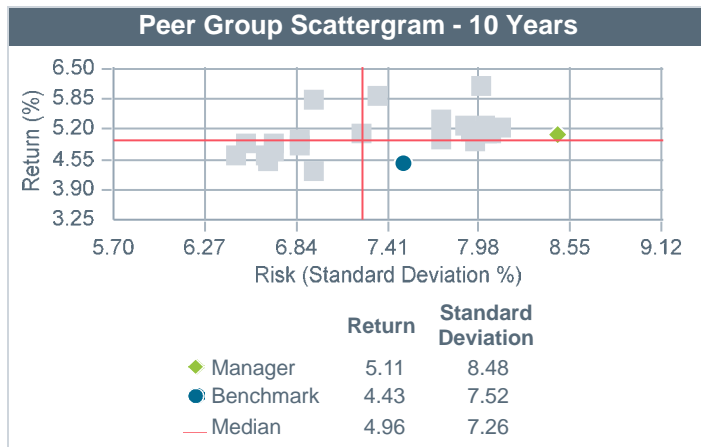
	Portfolio	Benchmark
Effective Duration	3.63	3.78
Spread Duration	N/A	3.80
Avg. Maturity	6.03	6.27
Avg. Quality	B1	B1/B2
Yield To Maturity (%)	6.53	5.98
Coupon Rate (%)	6.83	6.43
Current Yield (%)	6.67	N/A
Holdings Count	172	2,041



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of Preferreds, Convertible Bonds, and Common Stock.

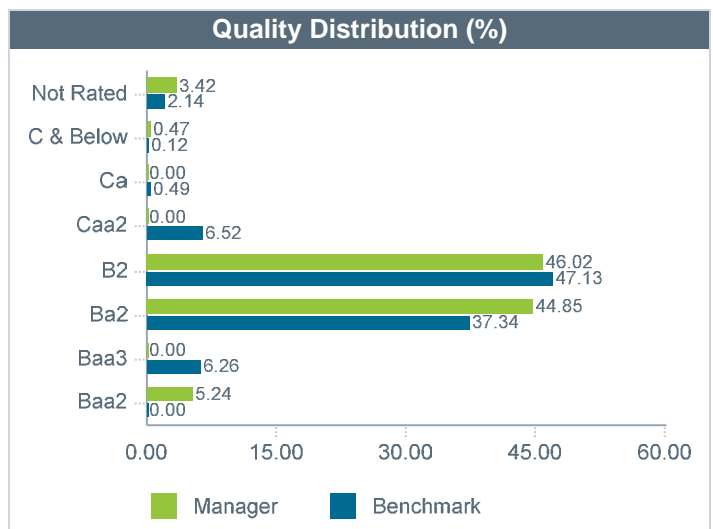


Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.85	3.40	4.33	5.16	6.42	5.11	6.55	3.42	3.25	7.92	13.84
Benchmark	1.06	5.36	3.96	4.40	4.99	4.43	9.88	-0.38	2.06	6.15	9.43
Difference	-0.21	-1.96	0.37	0.76	1.43	0.68	-3.33	3.80	1.19	1.77	4.41
Peer Group Median	1.18	5.27	4.22	4.64	5.36	4.96	9.51	0.76	2.06	6.31	9.98
Rank	92	100	45	16	6	35	99	2	8	6	2
Population	63	63	62	56	49	29	64	67	70	63	64



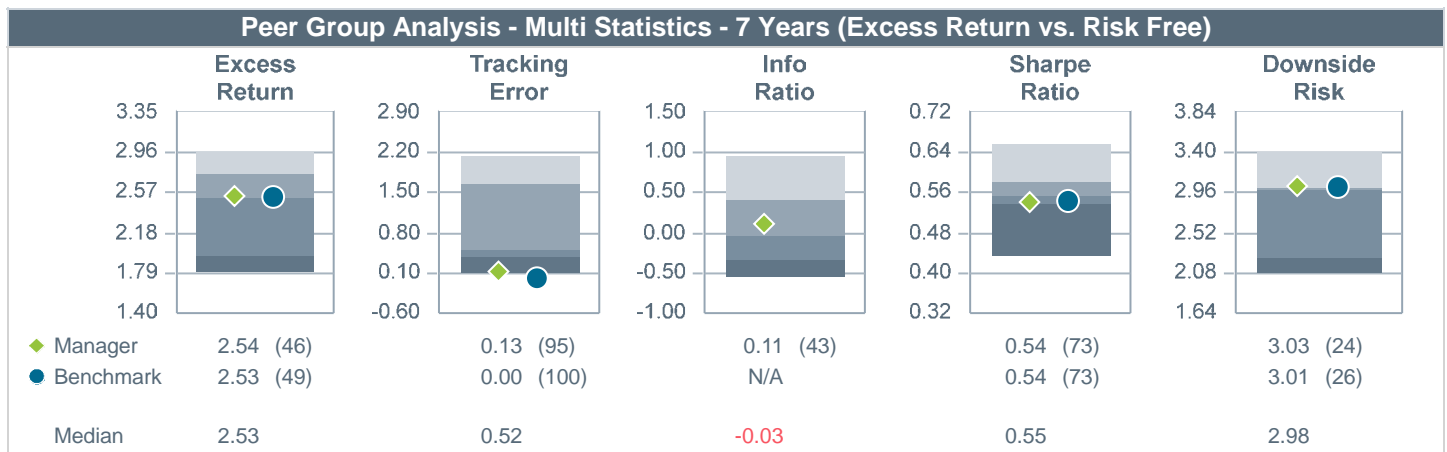
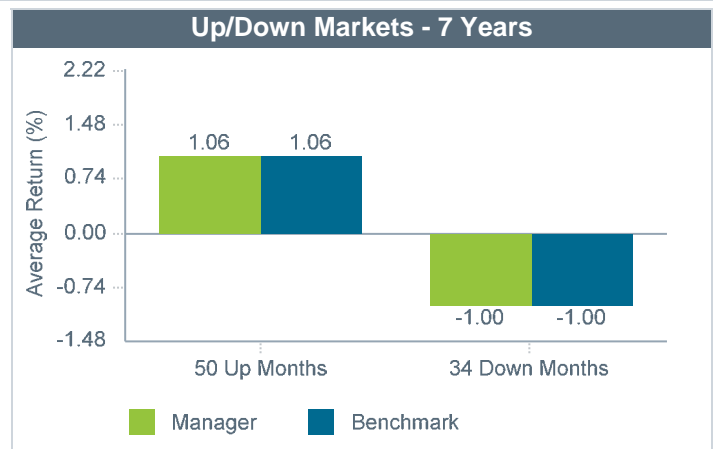
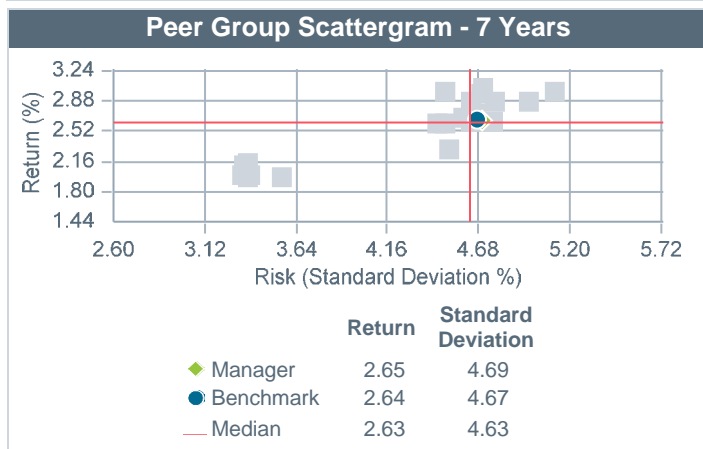
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	N/A	N/A
Spread Duration	N/A	N/A
Avg. Maturity	5.40	5.02
Avg. Quality	B1	Ba2
Yield To Maturity (%)	4.80	6.40
Coupon Rate (%)	6.80	4.94
Current Yield (%)	4.50	5.09
Holdings Count	76	1,521



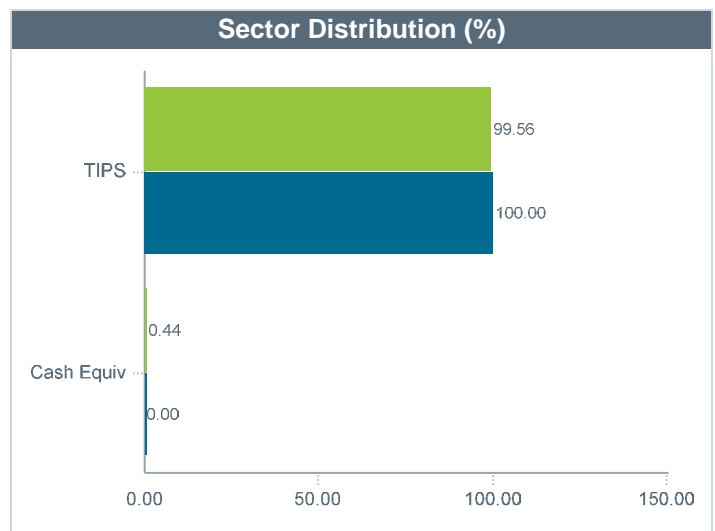
Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	0.87	-0.66	1.66	0.04	2.65	N/A	4.75	-1.33	3.52	-8.62	6.97
Benchmark	0.86	-0.73	1.62	0.02	2.64	3.90	4.68	-1.44	3.64	-8.61	6.98
Difference	0.01	0.07	0.04	0.02	0.01	N/A	0.07	0.11	-0.12	-0.01	-0.01
Peer Group Median	0.89	-0.49	1.63	0.13	2.63	3.97	4.65	-1.41	3.57	-8.41	6.96
Rank	59	66	42	79	46	N/A	40	41	53	71	50
Population	33	33	32	31	30	29	37	37	42	45	43



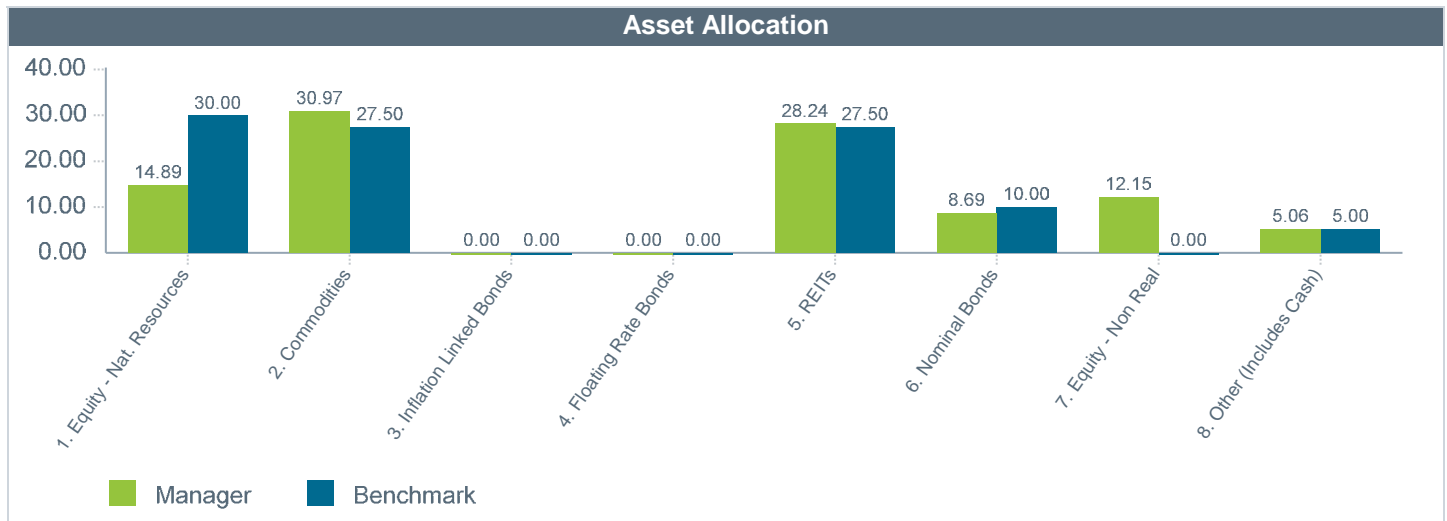
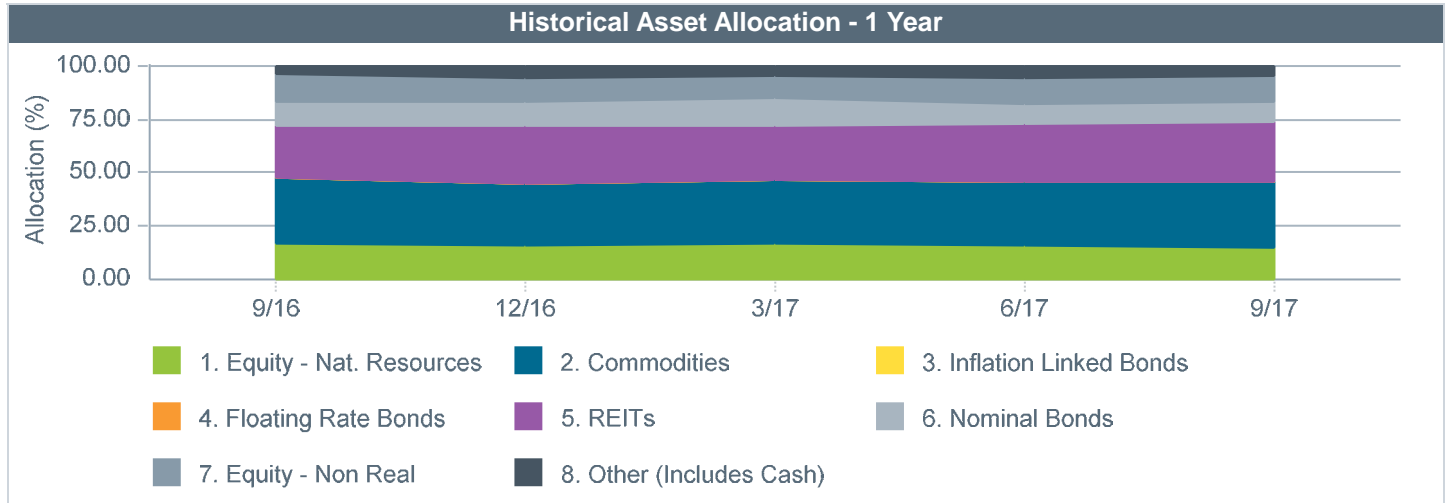
Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	7.66	7.83
Spread Duration	0.00	6.01
Avg. Maturity	8.34	8.34
Avg. Quality	Aaa	Aaa
Yield To Maturity (%)	2.08	2.38
Coupon Rate (%)	0.77	0.79
Current Yield (%)	0.74	N/A
Holdings Count	42	38



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	2016	2015	2014	2013	2012
Manager	2.90	1.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benchmark	3.45	4.50	0.06	0.01	N/A	N/A	11.89	-13.27	-0.20	-2.15	N/A
Difference	-0.55	-2.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Historical Statistics - 1 Year

	Manager	Benchmark	S&P 500 Index (Cap Wtd)	Bloomberg US Agg Bond Index
Standard Deviation	4.34	4.53	5.23	3.02
Sharpe Ratio	0.31	0.86	3.19	-0.18
Downside Risk	2.62	2.60	1.82	2.53
Excess Return	1.34	3.86	16.67	-0.53

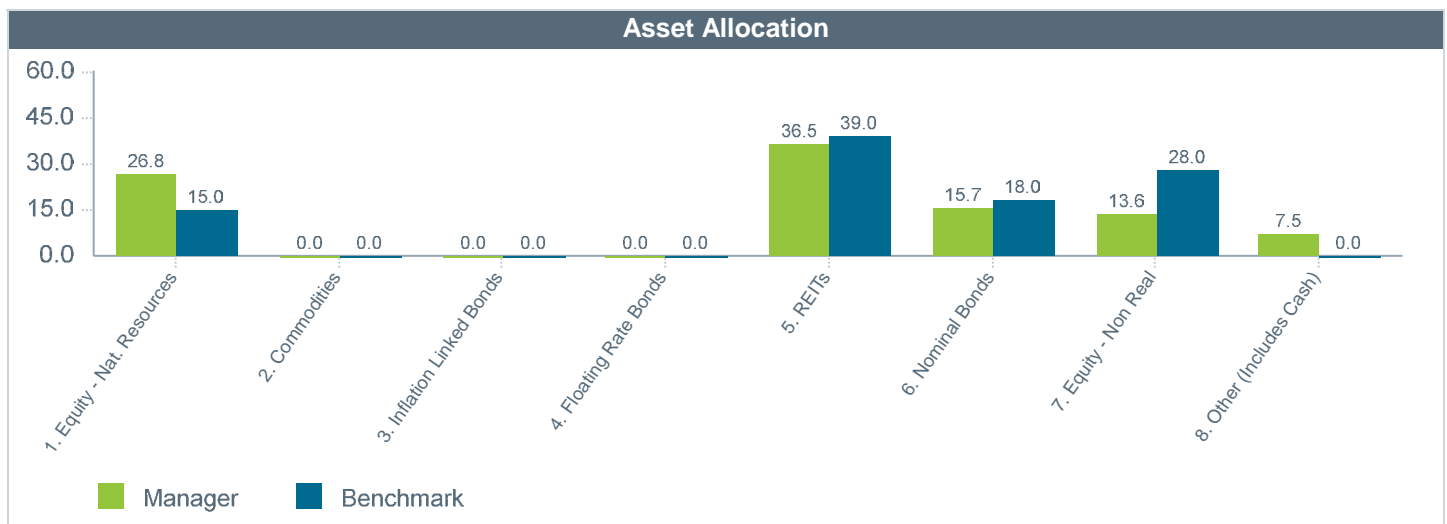
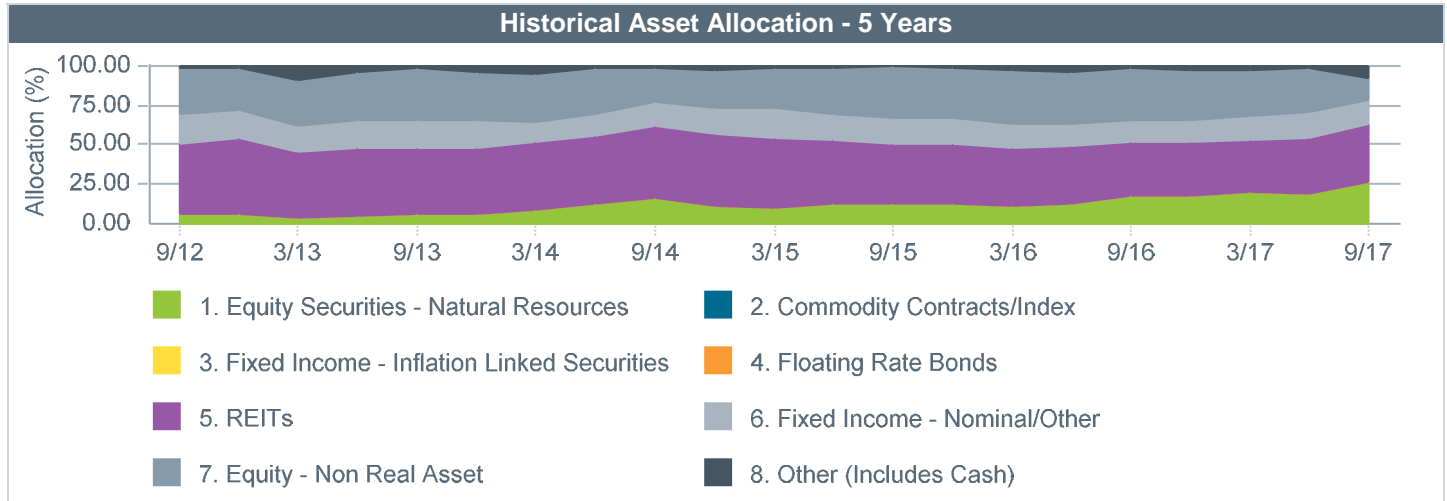
Actual Correlation - 1 Year

	Actual Correlation
C&S Real Assets Blended Benchmark	0.96
S&P 500 Index (Cap Wtd)	0.59
Russell 2000 Index	0.16
MSCI EAFE Index (USD) (Net)	0.53
MSCI Emg Mkts Index (USD) (Net)	0.44
Bloomberg US Agg Bond Index	0.36
Bloomberg US Trsy: US TIPS Index	0.35
Wilshire US REIT Index	0.74
HFRI FOF Comp Index	0.81
Bloomberg Cmnty Index (TR)	0.72
BofA ML 3 Mo US T-Bill Index	0.40
Cons Price Index (Unadjusted)	-0.03

Primary Real Return strategies and asset classes are represented by the colored shades and are denoted by categories 1 through 5. Statistics are based on monthly net of fees returns and are product specific. Please see the Addendum for custom index definitions. Allocation to "Other" includes Gold and cash equivalents.



Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2016	2015	2014	2013	2012
Manager	1.85	7.05	7.32	9.26	N/A	N/A	10.82	-2.02	16.76	7.38	18.59
Benchmark	2.43	7.95	6.30	7.62	N/A	N/A	8.81	-3.30	11.54	6.38	18.25
Difference	-0.58	-0.90	1.02	1.64	N/A	N/A	2.01	1.28	5.22	1.00	0.34



Historical Statistics - 5 Years

20.0
15.0
10.0
5.0
0.0

6.9 1.3 3.8 8.9 6.9 1.1 4.0 7.4 9.5 1.4 4.9 13.6 2.8 0.7 1.8 1.9

Manager Benchmark S&P 500 Index (Cap Wtd) Bloomberg US Agg Bond Index

Standard Deviation	6.89	6.95	9.47	2.82
Sharpe Ratio	1.29	1.07	1.44	0.66
Downside Risk	3.79	3.98	4.85	1.80
Excess Return	8.91	7.39	13.60	1.87

Actual Correlation - 5 Years

	Actual Correlation
Nuveen Real Assets Blended Benchmark	0.96
S&P 500 Index (Cap Wtd)	0.60
Russell 2000 Index	0.39
MSCI EAFE Index (USD) (Net)	0.69
MSCI Emg Mkts Index (USD) (Net)	0.73
Bloomberg US Agg Bond Index	0.61
Bloomberg US Trsy: US TIPS Index	0.66
Wilshire US REIT Index	0.76
HFRI FOF Comp Index	0.52
BofA ML 3 Mo US T-Bill Index	0.11
Cons Price Index (Unadjusted)	0.13

Primary Real Return strategies and asset classes are represented by the colored shades and are denoted by categories 1 through 5. Statistics are based on monthly gross of fees returns and are product specific prior to client inception. Historical asset allocation prior to client inception is represented by Nuveen Real Asset Inc;I (NRIIX). Please see the Addendum for custom index definitions.

Addendum & Glossary



Santa Barbara County Employees' Retirement System Addendum

Performance Related Comments

- RVK, Inc. began monitoring the assets of the Santa Barbara County Employees' Retirement System in June, 2016. Prior historical data was provided by the previous investment consultant.
- Inception dates shown represent the first full month following initial funding.
- Performance is annualized for periods greater than one year.
- Total Fund performance excludes Treasury Cash.

Custom Index Comments

- SBCERS Policy Benchmark: RVK began calculating the SBCERS Policy Benchmark on 04/01/2016. Historical performance was provided by the previous consultant. The passive Policy Benchmark currently consists of 19% Russell 3000 Index, 11% MSCI EAFE Index (USD) (Net), 7% MSCI Emerging Markets Index (USD) (Net), 17% Bloomberg US Agg Bond Index, 11% Custom Non-Core Fixed Income Benchmark, 15% Consumer Price Index+4%, 10% NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag), and 10% Russell 3000+3% Index.
- SBCERS Dynamic Policy Benchmark: The active dynamic policy benchmark is calculated monthly using beginning of month manager weights applied to each corresponding primary benchmark return.
- Custom Non-Core Benchmark: The Custom Non-Core Benchmark currently consists of 33.3% Bloomberg Barclays US Corporate: High Yield Index, 33.33% Stone Harbor Blended Benchmark, and 33.3% Credit Suisse Leveraged Loan Index.
- Stone Harbor Blended Benchmark: The Stone Harbor Blended Benchmark currently consists of 50% JP Morgan GBI-EM Global Diversified Total Return Index (USD) (Unhedged), 40% JP Morgan EMBI Global Diversified Total Return Index (USD), and 10% JP Morgan CEMBI Broad Diversified Index.
- Cohen & Steers Real Assets Custom Index - The Cohen & Steers Real Assets Custom Index currently consists of 27.5% FTSE EPRA/NAREIT Developed Index (USD) (Net), 27.5 Bloomberg Commodity Index (TR), 15% S&P Global Natural Resources Index, 15% Dow Jones Brookfield Global Infrastructure Index, 10% BofA ML 1-3 Yr US Corporate Index, and 5% Gold Spot Per Ounce Index. Prior to October 2013 the index consists of 30% FTSE EPRA/NAREIT Developed Index (USD) (Net), 30% Bloomberg Commodity Index (TR), 20% S&P Global Natural Resources Index (TR), 12.5% BofA ML 1-3 Yr US Corporate Index, 7.5% Gold Spot Per Ounce Index.
- Nuveen Real Assets Blended Benchmark - The Nuveen Real Assets Blended Benchmark currently consists of 28% S&P Global Infrastructure Index, 21% FTSE EPRA/NAREIT Developed Index (USD) (Gross), 18% Wells Fargo Hybrid & Preferred Securities REIT Index (TR), 15% Bloomberg Global Capital Securities Index (TR), and 18% Bloomberg US Corporate High Yield Index.
- Performance for the NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) is available quarterly; interim months assume a 0.00% return.

Manager Fee Schedules

- Rhumblin HEDI (SA) - 0.04% on first \$300 million; 0.03% on next \$200 million; 0.02% thereafter.
- SSgA Russell 1000 Index - NL (CF) - 0.02% on the first \$100 million; 0.01% thereafter.
- Dimensional U.S. Small Cap Value (CF) - 0.50% per year.
- RHJ Small Cap Opportunities - 0.85% on all assets.
- First Eagle International Value Equity (SA) - 0.75% on all assets.
- PanAgora Dynamic International Equity (SA) - 0.33% on first \$100 million; 0.30% on next \$100 million; 0.25% thereafter.
- SSgA MSCI World (ex. U.S.) Index - NL (CF) - 0.05% on first \$100 million; 0.04% thereafter.
- Artisan Non-U.S. Growth (SA) - 0.80% on first \$50 million; 0.60% thereafter.
- Copper Rock International Small Cap (CF) - 0.85% on all assets.
- DFA Emg Mkts Value;I (DFEVX) - 0.56% on all assets.
- RBC Emerging Markets Equity (CF) - 0.50% on all assets.
- BlackRock Intermediate Duration (CF) - 0.07% on the first \$100 million; 0.045% on next \$400 million; 0.0375% thereafter.
- Garcia Hamilton Core Fixed Income (SA) - 0.30% on first \$10 million; 0.25% thereafter.
- Guggenheim Core Plus Fixed Income (SA) - 0.33% on first 100 million; 0.27% on next \$200M; 0.20% thereafter.
- Stone Harbor Emerging Market Debt Blend - The Account will be charged all of the fees and expenses applicable to its holdings of shares of the sub-funds of the Stone Harbor Investment Funds in which it invests as provided by such funds' prospectus, as amended from time to time.

**Santa Barbara County Employees' Retirement System
Addendum**

Manager Fee Schedules (continued)

- Hotchkis & Wiley High Yield (SA) - 0.50% on the first \$50 million; 0.45% on the next \$50 million; 0.40% on all assets thereafter.
- Beach Point Leverage Loan (CF) - 0.65% on all assets.
- BlackRock TIPS (CF) - 0.05% on first \$100 million; 0.035% on next \$400 million; 0.0275% thereafter.
- Cohen & Steers Real Assets Fund (CIT) - 0.65% on all assets
- Nuveen Real Asset Income Fund (SA) - 0.80% on first \$50 million; 0.75 on next \$50 million; 0.65% thereafter.

**Santa Barbara County Employees' Retirement System
Addendum
Underlying Indices of SBCERS Policy Index**

As of September 30, 2017

Time Period	Composition	Time Period	Composition	Time Period	Composition
11/01/1999-12/31/2001	45.0% Russell 3000 Index 20.0% MSCI EAFE 28.5% Lehman Aggregate 4.5% SB World Gov Bond 2.0% CG 3-Month U.S. T-Bill	06/01/2012-04/30/2013	21.0% Russell 3000 Index 2.0% HFRI Composite 9.0% MSCI EAFE 10.0% MSCI Emerging Markets 1.0% MSCI Frontier Markets 10.0% Barclays Capital Aggregate 4.0% JPM GBI Global ex. U.S. 3.0% JPM GBI - Emerging Global Diversified 7.0% Barclays Capital U.S. Tips 4.0% Barclays High Yield 2.0% CSFB Leveraged Loan Index 3.0% Dow Jones-UBS Commodity Index 2.0% S&P Global Large Mid Comm and NR 3.0% CPI+4% Lagged 2.0% Dow Jones Brookfield Global Infra. 2.0% CPI+4% Lagged 7.0% Russell 3000+3% Lagged 6.0% NCREIF ODCE Lagged 2.0% NAREIT Equity REITs Lagged 0.0% 90 Day T-Bills	04/01/2016-06/30/2017	23.0% Russell 3000 Index 9.0% MSCI EAFE Index (USD) (Net) 10.0% MSCI Emerging Markets Index (USD) (Net) 1.0% MSCI Frontier Markets Index (USD) (Net) 10.0% Bloomberg US Aggregate Bond Index 4.0% JP Morgan Global Government Bond Excluding US Index 3.0% Stone Harbor Blended Benchmark 7.0% Bloomberg US Treasury: US TIPS Index 4.0% Bloomberg US Corporate: High Yield Index 2.0% Credit Suisse Leveraged Loan Index 3.0% Bloomberg Commodity Index (Total Return) 2.0% S&P Gbl Lg Mid Cap Commodity & Resources Index (USD) (Gross) 3.0% Consumer Price Index+4% (1 Qtr Lag) 2.0% Dow Jones Brookfield Global Infrastructure Composite Index (Net) 2.0% Consumer Price Index+4% 7.0% Russell 3000 Index+3% (1 Qtr Lag) 6.0% NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) 2.0% FTSE NAREIT All Equity REITs Total Return Index (1 Qtr Lag) 0.0% BofA Merrill Lynch 3 Month US Treasury Bill Index
01/01/2002-12/31/2006	49.0% Russell 3000 Index 19.0% MSCI AC Wild ex U.S. 27.0% Lehman Universal 4.0% DJ Wilshire REIT Full Cap 1.0% CG 3-Month U.S. T-Bill	05/01/2013-03/31/2016	23.0% Russell 3000 Index 9.0% MSCI EAFE 10.0% MSCI Emerging Markets 1.0% MSCI Frontier Markets 10.0% Barclays Capital Aggregate 4.0% JPM GBI Global ex. U.S. 3.0% JPM GBI - Emerging Global Diversified 7.0% Barclays Capital U.S. Tips 4.0% Barclays High Yield 2.0% CSFB Leveraged Loan Index 3.0% Dow Jones-UBS Commodity Index 2.0% S&P Global Large Mid Comm and NR 3.0% CPI+4% Lagged 2.0% Dow Jones Brookfield Global Infra. 7.0% Russell 3000+3% Lagged 6.0% NCREIF ODCE Lagged 2.0% NAREIT Equity REITs Lagged 0.0% 90 Day T-Bills	07/01/2017-Present	19.0% Russell 3000 Index 11.0% MSCI EAFE Index (USD) (Net) 7.0% MSCI Emerging Markets Index (USD) (Net) 17.0% Bloomberg US Aggregate Bond Index 11.0% Custom Non-Core Fixed Income Benchmark 15.0% Consumer Price Index+4% 10.0% NCREIF ODCE Index (AWA) (Net) (1 Qtr Lag) 10.0% Russell 3000 Index+3% (1 Qtr Lag)
01/01/2007-12/31/2008	48.0% Russell 3000 Index 19.0% MSCI ACWI ex U.S. 26.0% Lehman Universal 2.0% Russell 3000+3% 4.0% NCREIF / T-Bill+3% (50/50) 1.0% CG 3-Month U.S. T-Bill				
01/01/2009-02/28/2009	47.0% Russell 3000 Index 18.0% MSCI ACWI ex U.S. 25.0% BC U.S. Universal 4.0% Russell 3000+3% Index 5.0% NCREIF / T-Bill+3% (50/50) 1.0% CG 3-Month U.S. T-Bill				
03/01/2009-06/30/2010	37.0% Russell 3000 Index 18.0% MSCI ACWI ex U.S. 32.0% BC U.S. Universal 4.0% T-Bill Lag 1 Qtr Lag 4.0% NCREIF Index Lag 1 QTR 3.0% Russell 3000 Lag 1 QTR 2.0% CG 3-Month U.S. T-Bill				
07/01/2010-02/28/2011	37.0% Russell 3000 Index (includes 2% Covered Calls) 18.0% MSCI ACW ex U.S. 32.0% BC U.S. Universal 4.0% T-Bill Lag 1 QTR (Real Return) 4.0% NCREIF Index Lag 1 QTR 3.0% Russell 3000 Lag 1 QTR (Private Equity) 2.0% CG 3-Month U.S. Bill				
03/01/2011-05/31/2012	37.0% Russell 3000 Index (includes 2% Covered Calls) 18.0% MSCI ACW ex U.S. 30.0% BC U.S. Universal 4.0% T-Bill Lag 1 QTR (Real Return) 4.0% NCREIF Index Lag 1 QTR 5.0% Russell 3000 Lag 1 QTR (Private Equity) 2.0% CG 3-Month U.S. Bill				

RVK, Inc. began calculating performance for the SBCERS Policy Index in April 2016. Prior performance data was provided by the previous investment consultant.



The following work plan outlines RVK's proposed action items for Santa Barbara County Employees' Retirement System. The proposed timing for future meetings is intended to correspond with anticipated meeting dates for the Board.

Action Item	Anticipated Presentation	Status	Comments
Domestic & International Equity Structure Study	January 2017 Board Meeting	Completed	Recommended structure was approved.
Core & Non-Core Fixed Income Structure Study	February 2017 Board Meeting	Completed	Recommended structure was approved.
Q4 Performance Report	February 2017 Board Meeting	Completed	
Real Return Structure Study	April 2017 Board Meeting	Completed	Recommended structure was approved.
Q1 Performance Report	May 2017 Board Meeting	Completed	
Stone Harbor Vehicle Change Recommendation	June 2017 Board Meeting	Completed	Recommended vehicle change was approved.
Core Fixed Income Manager Search/Structure Optimization	July 2017 Board Meeting	Completed	Garcia Hamilton and Guggenheim were approved to fill the core and core plus fixed income mandates, respectively.
Public Real Return Manager Search/Structure Optimization	July 2017 Board Meeting	Completed	Cohen & Steers and Nuveen were selected to fill the DIS mandate.
Q2 Performance Report	August 2017 Board Meeting	Completed	
Review of Non-Core Fixed Income Options and Direct Lending Panel Education	November 2017 Board Meeting	Completed	
Q3 Performance Report	December 2017 Board Meeting	In Progress	

Santa Barbara County Employees' Retirement System
Comparative Performance

As of September 30, 2017

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Analytic U.S. Low Volatility Equity Composite	1.79	8.53	12.12	10.55	12.65	14.77	8.39
Russell 1000 Index	4.48	14.17	18.54	10.63	14.27	14.35	7.55
Difference	-2.69	-5.64	-6.42	-0.08	-1.62	0.42	0.84
IM U.S. Large Cap Core Equity (SA+CF) Median	4.61	14.08	18.63	10.55	14.19	14.42	7.83
Rank	99	95	93	50	82	35	28
London Company Income Equity Composite	1.92	8.37	12.42	8.69	12.93	14.27	9.39
Russell 1000 Index	4.48	14.17	18.54	10.63	14.27	14.35	7.55
Difference	-2.56	-5.80	-6.12	-1.94	-1.34	-0.08	1.84
IM U.S. Large Cap Core Equity (SA+CF) Median	4.61	14.08	18.63	10.55	14.19	14.42	7.83
Rank	98	96	92	81	78	58	9
RBC Mid Cap Value Composite	-0.67	1.08	8.24	6.42	13.01	12.84	8.29
Russell Mid Cap Val Index	2.14	7.43	13.37	9.19	14.33	13.76	7.85
Difference	-2.81	-6.35	-5.13	-2.77	-1.32	-0.92	0.44
IM U.S. Mid Cap Value Equity (SA+CF) Median	3.57	8.93	17.08	9.96	14.56	14.04	8.89
Rank	97	97	97	93	84	80	69
Artisan U.S. Mid-Cap Growth Composite	1.87	18.05	13.52	9.04	13.12	13.95	9.59
Russell Mid Cap Grth Index	5.28	17.29	17.82	9.96	14.18	13.84	8.20
Difference	-3.41	0.76	-4.30	-0.92	-1.06	0.11	1.39
IM U.S. Mid Cap Growth Equity (SA+CF) Median	4.56	17.77	19.06	10.43	13.60	13.95	8.62
Rank	96	47	93	70	64	50	21
BlackRock MSCI Emg Mkts Index (CF)	7.86	27.70	22.32	4.79	3.89	2.43	N/A
MSCI Emg Mkts Index (USD) (Net)	7.89	27.78	22.46	4.90	3.99	2.54	1.32
Difference	-0.03	-0.08	-0.14	-0.11	-0.10	-0.11	N/A
IM Emerging Markets Equity (SA+CF) Median	7.56	28.21	22.66	5.85	5.73	4.35	2.74
Rank	44	54	54	66	86	85	N/A
Aberdeen Frontier Markets Equity (CF)	1.06	15.30	12.85	-1.27	5.18	N/A	N/A
MSCI Frontier Mkts Index (USD) (Net)	8.03	24.86	25.47	-1.36	8.73	5.02	-1.07
Difference	-6.97	-9.56	-12.62	0.09	-3.55	N/A	N/A
IM Emerging Markets Equity (SA+CF) Median	7.56	28.21	22.66	5.85	5.73	4.35	2.74
Rank	99	98	94	97	62	N/A	N/A

Performance shown is gross of fees and product specific. Performance is annualized for periods greater than one year.

Santa Barbara County Employees' Retirement System
Comparative Performance

As of September 30, 2017

	QTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years
Schroder STW Core Fixed Income Composite	1.05	3.50	1.03	2.99	2.28	3.32	4.90
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27
Difference	0.20	0.36	0.96	0.28	0.22	0.37	0.63
IM U.S. Broad Market Core Fixed Income (SA+CF) Median	0.92	3.47	0.61	3.02	2.46	3.48	4.80
Rank	25	46	29	56	63	65	43
Reams Core Plus Fixed Income Composite	1.02	3.32	0.51	3.05	2.52	3.99	5.87
Bloomberg US Agg Bond Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27
Difference	0.17	0.18	0.44	0.34	0.46	1.04	1.60
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median	1.17	4.19	1.96	3.43	3.10	4.28	5.48
Rank	70	92	98	79	86	62	30
BlackRock Gbl Agg ex USD Idx NL (Hedged) (CF)	0.65	1.22	-0.74	3.30	3.63	3.58	4.17
Bloomberg Gbl Agg Ex USD Index (Hedged)	0.68	1.33	-0.55	3.40	3.74	3.69	4.29
Difference	-0.03	-0.11	-0.19	-0.10	-0.11	-0.11	-0.12
IM International Fixed Income (SA+CF) Median	1.48	5.20	2.60	2.29	2.58	3.15	4.34
Rank	86	90	72	37	33	36	55
Brandywine International Fixed Income (CF)	3.16	12.89	4.95	1.19	1.80	3.12	4.79
FTSE Non-US Wrld Gov't Bond Index	2.57	8.63	-3.14	0.47	-1.07	0.29	2.67
Difference	0.59	4.26	8.09	0.72	2.87	2.83	2.12
IM International Fixed Income (SA+CF) Median	1.48	5.20	2.60	2.29	2.58	3.15	4.34
Rank	11	8	28	64	56	52	39
Mount Lucas Commodity Long/Neutral (CF)	-1.53	-8.09	-12.35	-5.82	-5.92	-3.08	-1.23
Bloomberg Cmdty Index (TR)	2.52	-2.87	-0.29	-10.42	-10.47	-6.82	-6.83
Difference	-4.05	-5.22	-12.06	4.60	4.55	3.74	5.60
BlackRock Dow Jones UBS Commodities Index (CF)	2.57	-2.72	-0.08	-10.37	-10.40	-6.74	N/A
Bloomberg Cmdty Index (TR)	2.52	-2.87	-0.29	-10.42	-10.47	-6.82	-6.83
Difference	0.05	0.15	0.21	0.05	0.07	0.08	N/A
State Street Gbl LargeMidCap Natural Resources Stock Idx NL (CF)	11.01	10.41	15.38	-1.56	-1.45	N/A	N/A
S&P Gbl Lg Mid Cap Cmdty & Res Index (USD) (Gross)	11.09	10.22	15.31	-1.50	-1.35	0.28	-0.13
Difference	-0.08	0.19	0.07	-0.06	-0.10	N/A	N/A
RARE Infrastructure Global Value (CF)	3.78	20.35	15.53	6.02	9.10	9.76	6.30
DJ Brookfield Gbl Infrastructure Comp Idx	2.24	12.43	7.42	2.49	8.45	10.55	7.34
Difference	1.54	7.92	8.11	3.53	0.65	-0.79	-1.04

The Aberdeen Global High Income (CF) was discontinued in November 2016.

Performance shown is gross of fees and product specific. Performance is annualized for periods greater than one year.

Glossary

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

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

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

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

<u>S&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 composite's benchmark return and the blended return of each respective managers' benchmark within the composite.

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.

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



Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Glossary

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

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

Peer Groups -

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

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

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

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

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

1 - Highest Statistical Value

100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 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 - BofA ML 3 Mo US T-Bill Index unless specified otherwise.

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



Glossary

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

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

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

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

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

PORTLAND

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