



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: MARCH 31, 2017

Investment Performance Review for

Alameda County Employees' Retirement Association

1st quarter summary

THE ECONOMIC CLIMATE

- Developed economies continued to experience steady, moderate expansion with fourth quarter real GDP growth in the U.S., the Eurozone, and Japan all between 1.5-2.0%. The base effect of lower oil prices led to higher year-over-year headline inflation in many countries.
- During the first quarter, the global economy exhibited a coordinated pick up in economic activity. Data generally exceeded expectations, especially in the U.S. and the Eurozone.

MARKET PORTFOLIO IMPACTS

- The U.S. Treasury curve flattened in the first quarter. Short-term rates were driven higher by the Fed, while the long end of the curve remained unchanged. Even with Fed tightening, the U.S. may not be in a typical rising rate environment.
- A better outlook for commodity performance, as well as a flattening of the futures curve in some markets increases the attractiveness of commodities as an inflation hedge.

THE INVESTMENT CLIMATE

- While central banks are still accommodative outside of the U.S., most appear to be in later stages of the easing cycle. Developed central banks appear to be broadly entering a period of policy normalization.
- The market is expecting better earnings growth in U.S. equities. According to FactSet, the estimated Q1 earnings growth for the S&P 500 is 9.2% from the previous year. Higher earnings growth may help justify above average valuations.

ASSET ALLOCATION ISSUES

- Stabilizing currencies and commodity prices, as well as higher growth outlooks, may benefit emerging market equities.
- With U.S. Treasury yields still at historic lows and the expectation of additional tightening from the Fed, investors may not be adequately compensated for taking duration risk in the current environment.

We continue to be neutral towards risk

U.S. economics summary

- U.S. real GDP grew 2.0% YoY in Q4, up from 1.7% in Q3. Moderate increases in consumer spending continued to be the main driver of the economy.
- Inflation moved higher as headline CPI increased 2.8% YoY in February. Core inflation, however, increased only modestly to 2.2%. Most of the rise was caused by the low base effect from falling oil prices last year.
- The Fed continued tighter monetary policy by raising the target federal funds rate 25 bps to 0.75-1.00% at its March meeting. The FOMC dot plot indicates two more rate hikes in 2017, while the market has only priced in one more increase.
- The March Fed meeting minutes revealed that the central bank

may begin shrinking its balance sheet as early as December, representing a form of monetary tightening. It remains unclear whether the Fed will stop rolling over maturing securities or actively sell in the open market.

- On average, 178,000 jobs were added each month during Q1, and unemployment fell 0.2% to 4.5%. Data continued to indicate a tighter labor market, though wage growth is lackluster. Real hourly earnings fell 0.1% in February from the prior year.
- Soft data (consumer & business sentiment) improved markedly following the U.S. presidential election. We are continuing to monitor the degree to which soft data flows through to actual spending and investment patterns. At this point evidence still is lacking.

	Most Recent	12 Months Prior
GDP (<i>annual YoY</i>)	2.0% <i>12/31/16</i>	1.9% <i>12/31/15</i>
Inflation (<i>CPI YoY, Headline</i>)	2.8% <i>2/28/17</i>	1.0% <i>2/29/16</i>
Expected Inflation (<i>5yr-5yr forward</i>)	2.2% <i>3/31/17</i>	1.8% <i>3/31/16</i>
Fed Funds Rate	0.75% <i>3/31/17</i>	0.25% <i>3/31/16</i>
10 Year Rate	2.4% <i>3/31/17</i>	1.8% <i>3/31/16</i>
U-3 Unemployment	4.5% <i>3/31/17</i>	5.0% <i>3/31/16</i>
U-6 Unemployment	8.9% <i>3/31/17</i>	9.8% <i>3/31/16</i>

International economics summary

- Developed countries once again experienced moderate positive growth in the fourth quarter, in line with the trend of recent years. Real GDP in the U.S., Europe, and Japan grew between 1.5-2.0%.
- The low base effect of the drop in energy prices that occurred in Q1 2016 helped boost inflation across the globe. With energy prices stabilizing over recent months, it is possible the jump in inflation is only transitory.
- Developed world unemployment rates declined over the quarter. In the Euro Area, the unemployment rate fell to a nearly eight year low of 9.5%, although this is still well above its pre-crisis level of 7.3%.
- The economic recovery in Europe has also picked up in terms of higher growth and inflation. Much of this recovery can be attributed to the core countries, rather than

the periphery. However, significant tail risks remain including the French election, ECB tapering, and Brexit negotiations.

- On March 29th, the British Prime Minister, Theresa May, filed the official papers to withdraw the U.K. from the European Union. Article 50 of the Treaty of Lisbon outlines a two year timeframe for negotiations to take place.
- As many expected, Emmanuel Macron and Marine Le Pen were the top two vote getters in the first round of the French election. Macron and Le Pen will have a runoff vote on May 7th, where Macron is heavily favored, according to the most recent polls. Equity markets reacted positively to the results and the euro strengthened.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.0% 12/31/16	2.7% 2/28/17	4.5% 3/31/17
Western Europe	1.8% 12/31/16	1.5% 3/31/17	8.6% 12/31/16
Japan	1.6% 12/31/16	0.3% 2/28/17	2.8% 2/28/17
BRIC Nations	5.2% 12/31/16	3.1% 12/31/16	5.5% 12/31/16
Brazil	(2.5%) 12/31/16	4.6% 3/31/17	12.9% 3/31/17
Russia	0.3% 12/31/16	4.3% 3/31/17	5.4% 12/31/16
India	7.0% 12/31/16	3.7% 2/28/17	7.1% 12/31/15
China	6.8% 12/31/16	0.8% 2/28/17	4.0% 12/30/16

- The composite fund returned 5.8% for the first quarter of 2017 and ranked in the 2nd percentile among public funds greater than \$1 billion (median of 4.3%). The fund beat its policy index of 5.3% during this time period. Longer term, the five (8.5%), seven (8.9%), and ten year (5.9%) returns ranked in the top quarter of large public plans.

- First quarter results were enhanced by the following factors:
 1. Brandywine continues to outperform, beating the Citi WGBI (5.9% vs 1.6%). Gains were split between currencies and bonds, the single biggest contribution to performance came from Mexican Sovereign Bonds.
 2. Next Century Small Cap Growth beat the Russell 2000 Growth +2.5% (10.1% vs 6.0%). The market rewarded aggressive growth strategies in Q1.
 3. Capital Group rose 12.0% beating the MSCI ACWI ex US Growth (9.2%). Stock selection in consumer discretionary and materials were the largest contributors to relative performance.
 4. TCW's quarterly return of 12.7% beat the Russell 1000 Growth +2% (9.4%) and ranked in the top decile of its peers. Stock selection within information technology drove outperformance.
 5. Kennedy ranked in the 15th percentile of its peers gaining 3.1% vs the Russell 2000 Value +2.5% return of 0.4%. Most sectors outperformed the index, with significant contributions from financials, industrials, technology, and materials.

6. Next Century Ultra beat the Russell Microcap Growth +2.5% by 2.3% with a return of 5.5% and ranked in the middle of its peers.
7. Loomis Sayles rose 3.1% and ranked in the top of its peers. Security selection and cyclical exposure drove outperformance.
8. Templeton gained 10.2% beating the MSCI ACWI ex US Small Cap (8.9%). Stock selection within financials, industrials, consumer staples, and within Europe contributed to outperformance.

— First quarter results were hindered by the following factors:

1. Pzena gained 3.0% lagging the Russell 1000 Value +2% return of 4.0%. Stock selection in financials and consumer staples hurt relative performance.

Total Fund
 Manager Allocation Analysis (One Quarter)

Period Ending: March 31, 2017

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
AEW Value	\$1,327,828	-\$960,061	-\$30,155	\$337,612
AG Opportunistic Whole Loan	\$36,043,172	-\$5,698,037	\$1,433,274	\$31,778,409
AG STAR	\$16,145,067	-\$2,760,487	\$676,946	\$14,061,526
Alta	\$11,046,975	\$0	\$883,047	\$11,930,022
AQR	\$389,514,683	-\$990,879	\$34,303,969	\$422,827,773
AQR Real Return	\$166,692,497	\$0	-\$1,037,419	\$165,655,078
Artemis RE Partners Healthcare	--	\$7,927,718	\$0	\$7,927,718
Baird Advisors	\$550,353,348	-\$246,312	\$6,879,691	\$556,986,727
Bivium Cash	\$0	\$0	\$635	\$635
Brandywine	\$273,095,292	\$17,092,719	\$16,989,241	\$307,177,252
Capital Group	\$776,616,575	-\$935,809	\$93,044,083	\$868,724,849
Cash Account	\$51,270,014	-\$34,199,372	\$34,590	\$17,105,232
CIM Infrastructure II	\$8,497,019	-\$3,604,083	-\$6,519	\$4,886,417
CIM Urban REIT & CMCT	\$26,760,376	-\$247,065	\$349,407	\$26,862,718
CIM Urban REIT VI-2	\$30,056,996	-\$260,000	\$270,248	\$30,067,244
Dyal Capital II ¹	\$7,224,466	\$760,000	\$0	\$7,984,466
EnTrustPermal	\$123,020,000	\$0	-\$365,000	\$122,655,000
Gresham Onshore ETAP	\$39,600,350	\$0	-\$606,527	\$38,993,823
Gresham TAP	\$51,099,691	\$0	-\$1,060,536	\$50,039,155
Heitman America REIT	\$51,620,621	-\$408,902	\$567,971	\$51,779,690
Heitman Value II	\$831,757	\$0	\$62,433	\$894,190
Huber	\$8,172,372	\$0	\$356,610	\$8,528,982
Jamestown Premier Property	\$26,917,805	-\$995,401	\$516,427	\$26,438,831
JP Morgan Alternative	\$164,125	\$0	-\$1,075	\$163,050
JP Morgan Strategic	\$67,112,530	-\$560,138	\$1,107,764	\$67,660,156
Kennedy	\$247,540,264	-\$893,245	\$8,112,402	\$254,759,421
LHP Strategic Alpha	\$106,107,285	\$0	\$1,194,076	\$107,301,361
Lion Industrial Trust	\$32,698,537	\$8,011,839	\$1,234,906	\$41,945,282

¹ Preliminary ending market value.

Total Fund
 Manager Allocation Analysis (One Quarter)

Period Ending: March 31, 2017

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Loomis Sayles	\$301,800,467	-\$490,698	\$9,330,699	\$310,640,468
Matarin	\$9,506,787	\$0	-\$101,370	\$9,405,417
Mellon S&P 500	\$938,342,843	-\$14,500,000	\$56,864,647	\$980,707,490
MetLife Core Property	\$65,010,847	-\$683,961	\$1,158,754	\$65,485,640
Mondrian	\$573,867,142	-\$1,033,790	\$47,375,873	\$620,209,225
Next Century-SCG	\$151,533,941	-\$667,133	\$15,237,378	\$166,104,186
Next Century-USCG	\$54,238,215	-\$229,882	\$2,973,260	\$56,981,593
OakBrook	\$11,908,989	\$0	\$813,056	\$12,722,045
Oakland Building	\$55,918,050	-\$130,346	\$664,410	\$56,452,114
OHA Fund II	\$2,157,443	\$0	\$156,701	\$2,314,144
P/E Investments	\$35,277,564	\$0	-\$2,949,151	\$32,328,413
PRISA	\$50,878,042	-\$439,798	\$639,473	\$51,077,717
PRISA III	\$41,024,831	-\$106,676	\$1,017,207	\$41,935,362
Private Equity	\$427,595,742	-\$10,406,927	\$18,154,218	\$435,343,033
Private Real Assets	\$21,540,796	\$233,475	\$80,237	\$21,854,508
Pzena	\$478,850,031	-\$905,608	\$14,597,213	\$492,541,636
Quest	\$11,310,975	\$8,824	\$735,855	\$12,055,654
Sec. Lending	\$0	-\$742,942	\$742,942	\$0
TCW	\$381,060,964	-\$306,265	\$48,360,160	\$429,114,859
Templeton	\$196,550,635	\$0	\$19,964,533	\$216,515,168
Transition Account	\$21	\$0	\$0	\$21
UBS Trumbull Property	\$47,099,612	-\$349,148	\$408,215	\$47,158,679
Vulcan Value	\$14,111,285	\$0	\$1,129,469	\$15,240,754
Total	\$6,969,114,867	-\$49,718,392	\$402,264,270	\$7,321,660,745

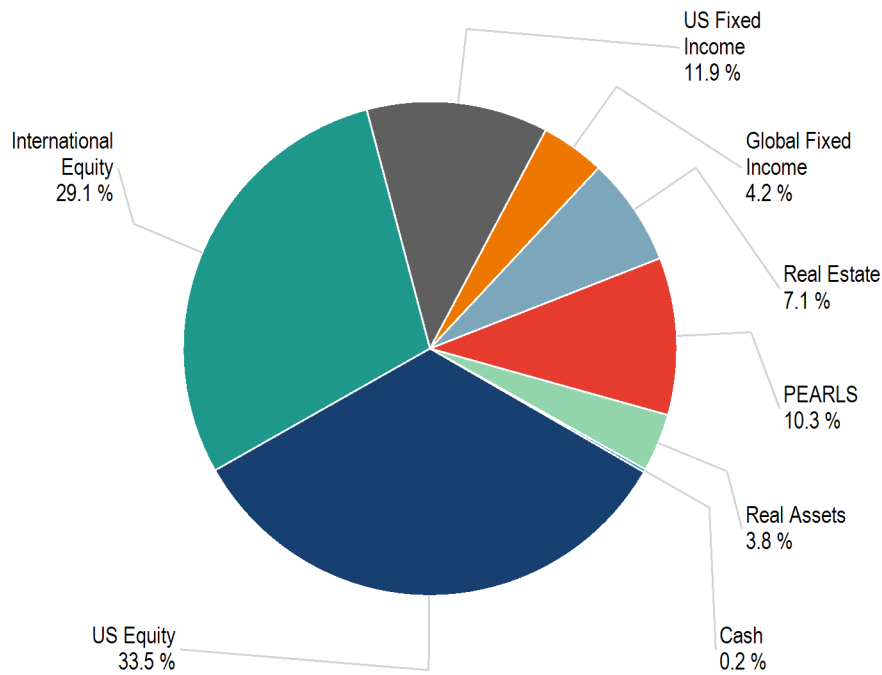
Bivium
 Manager Allocation Analysis (One Quarter)

Period Ending: March 31, 2017

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Alta	\$11,046,975	\$0	\$883,047	\$11,930,022
Bivium Cash	\$0	\$0	\$635	\$635
Huber	\$8,172,372	\$0	\$356,610	\$8,528,982
Matarin	\$9,506,787	\$0	-\$101,370	\$9,405,417
OakBrook	\$11,908,989	\$0	\$813,056	\$12,722,045
Quest	\$11,310,975	\$8,824	\$735,855	\$12,055,654
Vulcan Value	\$14,111,285	\$0	\$1,129,469	\$15,240,754
Total	\$66,057,383	\$8,824	\$3,817,302	\$69,883,509

Total Fund
Asset Allocation Analysis

Period Ending: March 31, 2017



	Current Balance	Current Allocation
US Equity	\$2,450,092,715	33.5%
International Equity	\$2,128,277,015	29.1%
US Fixed Income	\$867,627,195	11.9%
Global Fixed Income	\$307,177,252	4.2%
Real Estate	\$516,186,003	7.1%
PEARLS	\$753,766,352	10.3%
Real Assets	\$281,428,981	3.8%
Cash	\$17,105,232	0.2%
Total	\$7,321,660,745	100.0%

	Policy	Current Allocation	Difference
US Equity	28.0%	33.5%	5.5%
International Equity	26.0%	29.1%	3.1%
US Fixed Income	12.8%	11.9%	-0.9%
Global Fixed Income	2.3%	4.2%	1.9%
Real Estate	8.0%	7.1%	-0.9%
PEARLS	18.0%	10.3%	-7.7%
Real Assets	5.0%	3.8%	-1.2%
Cash	--	0.2%	0.2%
Total	100.0%	100.0%	

Total Fund Performance Summary

Period Ending: March 31, 2017

	3 Mo (%)	Rank	6 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception*	
															Return (%)	Since
Total Fund (Gross)	5.8	2	6.7	5	13.5	5	5.5	56	8.5	25	8.9	14	5.9	17	9.7	Sep-85
Total Fund (Net)	5.7	3	6.6	9	13.1	8	5.1	67	8.2	45	8.5	39	5.6	38	9.5	
<i>Policy Index¹</i>	5.3	6	6.7	5	13.4	6	6.5	15	9.1	5	9.1	9	6.5	7	10.0	Sep-85
<i>Allocation Index</i>	5.3	7	6.3	11	12.9	11	6.1	34	8.7	18	8.8	22	5.9	17	--	Sep-85
<i>InvestorForce Public DB > \$1B Gross Median</i>	4.3		5.3		11.5		5.6		8.0		8.3		5.4		9.0	Sep-85
US Equity (Gross)	6.5	15	10.6	31	19.9	17	8.5	73	12.5	65	12.7	51	7.5	48	11.6	Sep-85
US Equity (Net)	6.4	16	10.5	39	19.5	22	8.2	81	12.1	79	12.3	69	7.2	67	--	
<i>Russell 3000</i>	5.7	46	10.2	55	18.1	58	9.8	28	13.2	33	12.9	40	7.5	45	11.1	Sep-85
<i>InvestorForce All DB US Eq Gross Median</i>	5.7		10.2		18.2		9.2		12.8		12.7		7.5		11.1	Sep-85
Mellon S&P 500 (Gross)	6.1	44	10.1	44	17.2	36	10.4	25	13.3	37	13.0	44	7.6	64	10.1	Jun-86
Mellon S&P 500 (Net)	6.1	44	10.1	44	17.2	36	10.4	25	13.3	37	13.0	45	7.5	65	--	
<i>S&P 500</i>	6.1	44	10.1	44	17.2	36	10.4	26	13.3	38	12.9	45	7.5	67	10.0	Jun-86
<i>eA US Large Cap Core Equity Gross Median</i>	5.9		9.8		15.9		9.4		12.9		12.7		7.9		10.9	Jun-86
Large Cap Active Equity (Gross)	7.2	5	11.4	12	20.7	11	9.0	61	12.3	73	12.6	59	7.7	34	7.3	Mar-00
Large Cap Active Equity (Net)	7.2	5	11.2	14	20.3	14	8.6	71	11.9	84	12.2	76	7.3	61	6.9	
<i>Russell 1000</i>	6.0	28	10.1	62	17.4	72	10.0	17	13.3	28	13.0	33	7.6	41	4.9	Mar-00
<i>InvestorForce All DB US Eq Gross Median</i>	5.7		10.2		18.2		9.2		12.8		12.7		7.5		5.7	Mar-00
Bivium (Gross)	5.8	42	10.2	42	18.4	36	7.6	63	12.0	55	12.0	57	--	--	9.4	Jul-08
Bivium (Net)	5.7	43	10.0	45	17.9	38	7.1	67	11.5	70	11.5	64	--	--	8.9	
<i>Russell 3000 +1%¹</i>	6.0	38	10.6	37	19.1	27	10.8	15	14.4	19	14.3	11	--	--	--	Jul-08
<i>Russell 3000</i>	5.7	42	10.2	43	18.1	38	9.8	22	13.2	40	12.9	36	7.5	52	9.9	Jul-08

Total Fund and asset class composites are ranked against InvestorForce universes. Managers are ranked against eVestment Alliance style universes.

Ranking of 1 is a top ranking and a ranking of 100 is a bottom ranking. The InvestorForce Public DB > \$1B Gross universe consists of 105 members with a total market value of \$1,878.8 Trillion.

Effective 1/1/2017, only traditional asset class (public equity, public fixed income, public real estate) investment management fees will be included in the gross of fee return calculation.

* Effective Q1 2014, inception to date returns are as of the managers first full month. Prior was managers first full quarter.

¹ See Policy Index and Benchmark History.

Total Fund
Performance Summary

Period Ending: March 31, 2017

	3 Mo (%)	Rank	6 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception Return (%)	Since
Pzena (Gross)	3.0	75	16.4	2	28.5	1	9.4	28	13.8	24	11.7	61	4.8	95	5.6	Jan-06
Pzena (Net)	3.0	77	16.2	2	28.0	2	9.0	40	13.3	34	11.3	75	4.4	98	5.2	
<i>Russell 1000 Value +2%</i>	4.0	48	11.6	35	21.2	20	10.7	8	15.1	7	14.2	6	8.0	23	9.0	Jan-06
<i>Russell 1000 Value</i>	3.3	71	10.2	57	19.2	35	8.7	45	13.1	43	12.2	51	5.9	82	7.0	Jan-06
TCW (Gross)	12.7	3	6.4	91	13.2	77	8.6	75	10.7	88	12.8	58	9.7	24	6.2	Jun-99
TCW (Net)	12.7	3	6.3	92	12.8	81	8.3	80	10.4	91	12.4	67	9.3	35	--	
<i>Russell 1000 Growth +2%¹</i>	9.4	39	11.1	19	17.8	23	13.3	4	15.3	4	15.8	2	11.5	3	6.6	Jun-99
<i>Russell 1000 Growth</i>	8.9	51	10.0	34	15.8	48	11.3	28	13.3	33	13.7	32	9.1	45	4.2	Jun-99
Small Cap Equity (Gross)	5.8	37	10.0	66	24.6	2	4.9	99	11.5	91	12.3	73	6.9	80	13.5	Jul-85
Small Cap Equity (Net)	5.6	52	9.6	79	23.3	2	4.0	99	10.6	98	11.4	92	6.1	98	--	
<i>Russell 2000</i>	2.5	99	11.5	11	26.2	1	7.2	93	12.4	71	12.3	72	7.1	70	9.6	Jul-85
<i>InvestorForce All DB US Eq Gross Median</i>	5.7		10.2		18.2		9.2		12.8		12.7		7.5		10.8	Jul-85
Kennedy (Gross)	3.3	15	15.6	18	29.3	17	9.2	36	15.2	18	--	--	--	--	15.4	Sep-10
Kennedy (Net)	3.1	17	15.2	23	28.0	25	8.3	53	14.3	34	--	--	--	--	14.5	
<i>Russell 2000 Value +2.5%</i>	0.4	54	15.3	23	31.9	8	10.1	18	15.1	20	--	--	--	--	15.4	Sep-10
<i>Russell 2000 Value</i>	-0.1	67	13.9	37	29.4	17	7.6	64	12.5	70	11.6	82	6.1	93	12.9	Sep-10
Next Century-SCG (Gross)	10.1	7	5.0	91	16.6	88	0.0	97	6.1	99	8.9	98	5.8	95	10.3	Oct-02
Next Century-SCG (Net)	9.9	9	4.5	93	15.4	93	-0.8	98	5.2	99	8.0	99	4.9	98	9.4	
<i>Russell 2000 Growth +2.5%</i>	6.0	54	10.9	28	25.5	31	9.2	23	14.6	22	15.4	18	10.6	12	13.7	Oct-02
<i>Russell 2000 Growth</i>	5.3	62	9.1	56	23.0	52	6.7	49	12.1	57	12.9	68	8.1	65	11.1	Oct-02
Next Century-USCG (Gross)	5.5	44	1.9	99	29.1	45	0.9	94	10.8	89	13.2	79	6.8	92	6.8	Jun-06
Next Century-USCG (Net)	5.3	46	1.5	99	27.7	55	0.1	95	9.8	95	12.2	87	5.9	95	6.0	
<i>Russell MicroCap Growth +2.5%</i>	3.2	68	6.1	83	22.7	87	4.1	53	13.3	59	14.1	63	8.1	67	8.5	Jun-06
<i>Russell Microcap Growth</i>	2.6	72	4.1	90	20.2	97	1.6	77	10.7	90	11.6	89	5.5	97	5.9	Jun-06

¹ See Policy Index and Benchmark History.

Total Fund
Performance Summary

Period Ending: March 31, 2017

	3 Mo (%)	Rank	6 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception Return (%)	Since
International Equity (Gross)	10.1	10	7.8	23	14.6	33	1.9	43	6.4	29	5.5	35	2.8	21	8.2	Dec-90
International Equity (Net)	9.9	12	7.6	26	14.1	40	1.4	55	5.9	40	5.1	47	2.4	31	--	
<i>MSCI ACWI ex USA IMI Gross¹</i>	8.1	73	6.5	47	13.5	51	1.3	63	5.1	65	4.5	70	1.9	47	6.2	Dec-90
<i>InvestorForce All DB ex-US Eq Gross Median</i>	8.7		6.4		13.6		1.6		5.6		5.0		1.8		6.6	Dec-90
AQR (Gross)	8.8	33	8.3	10	14.9	17	2.4	31	7.1	22	5.9	33	--	--	1.4	Oct-07
AQR (Net)	8.6	42	8.0	12	14.2	23	1.9	46	6.6	35	5.4	58	--	--	0.9	
<i>MSCI ACWI ex USA Gross</i>	8.0	56	6.7	41	13.7	24	1.0	70	4.8	87	4.3	94	1.8	94	0.0	Oct-07
Capital Group (Gross)	12.0	4	8.4	18	17.5	11	1.7	58	6.3	55	5.0	78	2.6	68	8.3	Dec-90
Capital Group (Net)	12.0	5	8.3	19	17.1	13	1.4	63	6.0	60	4.7	85	2.2	72	--	
<i>MSCI ACWI ex USA Gross</i>	8.0	66	6.7	34	13.7	36	1.0	70	4.8	87	4.3	91	1.8	83	6.2	Dec-90
<i>MSCI ACWI ex USA Growth Gross</i>	9.2	36	3.0	74	10.0	66	1.9	52	5.2	77	4.9	80	2.3	71	--	Dec-90
Mondrian (Gross)	8.3	40	7.2	59	11.9	70	1.3	51	5.3	85	5.3	51	2.2	43	7.4	Nov-03
Mondrian (Net)	8.1	49	7.1	64	11.4	75	0.9	66	5.0	90	4.9	67	1.9	51	7.1	
<i>MSCI ACWI ex USA Gross</i>	8.0	51	6.7	66	13.7	58	1.0	59	4.8	91	4.3	84	1.8	55	6.8	Nov-03
<i>MSCI ACWI ex USA Value Gross</i>	6.8	80	10.4	38	17.4	37	0.0	90	4.4	94	3.6	87	1.3	86	6.9	Nov-03
Templeton (Gross)	10.2	27	5.9	36	10.8	52	3.0	65	8.0	75	--	--	--	--	5.9	Apr-11
Templeton (Net)	10.0	30	5.6	38	9.9	57	2.3	71	7.3	79	--	--	--	--	5.1	
<i>MSCI ACWI ex US Small Cap Gross</i>	8.9	48	5.1	42	12.7	35	2.8	68	7.1	82	6.6	97	3.4	93	3.6	Apr-11
Total Fixed Income (Gross)	2.9	6	-0.4	48	4.7	37	3.6	31	4.6	23	6.0	20	6.2	24	7.5	Sep-86
Total Fixed Income (Net)	2.8	8	-0.5	50	4.4	40	3.4	35	4.4	26	5.8	23	6.0	28	--	
<i>Fixed Income Blend¹</i>	1.2	68	-2.6	83	1.2	82	2.1	85	2.2	91	3.5	88	4.4	79	6.6	Sep-86
<i>InvestorForce All DB Total Fix Inc Gross Median</i>	1.5		-0.5		3.6		3.1		3.5		4.6		5.4		7.2	Sep-86

¹ See Policy Index and Benchmark History.

Total Fund
Performance Summary

Period Ending: March 31, 2017

	3 Mo (%)	Rank	6 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	7 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception Return (%)	Since
US Fixed Income (Gross)	1.9	17	-0.4	31	5.0	20	4.2	28	5.0	22	6.2	24	6.2	23	7.4	Sep-86
US Fixed Income (Net)	1.8	22	-0.4	31	4.8	22	4.0	31	4.9	24	6.0	25	6.0	28	--	
<i>BBgBarc US Aggregate TR</i>	0.8	86	-2.2	72	0.4	88	2.7	74	2.3	84	3.5	83	4.3	78	6.4	Sep-86
<i>InvestorForce All DB US Fix Inc Gross Median</i>	1.3		-1.2		2.6		3.3		3.5		4.6		5.1		7.3	Sep-86
Baird Advisors (Gross)	1.3	11	-1.3	20	2.3	13	4.0	6	4.0	5	5.2	6	5.3	19	5.3	Oct-01
Baird Advisors (Net)	1.2	13	-1.4	22	2.2	15	3.9	7	4.0	7	5.1	7	5.2	23	5.2	
<i>BBgBarc US Aggregate TR</i>	0.8	77	-2.2	79	0.4	78	2.7	81	2.3	90	3.5	87	4.3	90	4.4	Oct-01
Loomis Sayles (Gross)	3.1	1	1.5	1	10.1	1	4.7	3	6.9	1	7.8	1	7.6	1	8.6	Dec-00
Loomis Sayles (Net)	2.9	1	1.3	1	9.7	1	4.3	3	6.6	1	7.5	1	7.2	1	8.3	
<i>BBgBarc US Credit BAA TR</i>	1.7	3	-1.1	13	5.2	1	3.7	9	4.2	3	5.7	3	6.1	3	6.5	Dec-00
Global Fixed Income (Gross)	5.9	3	-0.5	78	3.6	79	1.9	71	3.2	63	5.6	27	6.1	21	7.8	Nov-01
Global Fixed Income (Net)	5.8	8	-0.7	81	3.2	82	1.6	73	2.9	69	5.3	45	5.8	38	7.5	
<i>Citi WGBI</i>	1.6	96	-7.1	99	-3.7	99	-1.2	97	-0.6	95	1.3	99	3.0	99	4.6	Nov-01
<i>InvestorForce All DB Gbl Fix Inc Gross Median</i>	3.3		1.7		7.6		2.8		3.8		5.1		5.5		6.9	Nov-01
Brandywine (Gross)	5.9	3	-0.5	50	3.6	48	1.9	51	3.2	48	5.6	23	6.1	22	7.8	Nov-01
Brandywine (Net)	5.8	3	-0.7	52	3.2	50	1.6	53	2.9	51	5.3	28	5.8	27	7.5	
<i>Citi WGBI</i>	1.6	70	-7.1	97	-3.7	92	-1.2	84	-0.6	91	1.3	92	3.0	87	4.6	Nov-01
PEARLS (Gross)	2.4	--	6.8	--	11.8	--	11.1	--	11.6	--	10.9	--	--	--	7.3	Nov-08
PEARLS (Net)	2.4	--	6.8	--	11.8	--	11.1	--	11.6	--	10.9	--	--	--	7.3	
<i>Russell 3000 +1%¹</i>	6.0	--	10.6	--	19.1	--	10.8	--	14.2	--	14.0	--	--	--	16.3	Nov-08

¹ See Policy Index and Benchmark History.

Total Fund
Performance Summary

Period Ending: March 31, 2017

	3 Mo		6 Mo		1 Yr		3 Yrs		5 Yrs		7 Yrs		10 Yrs		Inception	
	(%)	Rank	(%)	Rank	(%)	Rank	(%)	Rank	(%)	Rank	(%)	Rank	(%)	Rank	Return (%)	Since
Real Assets (Gross)	-0.9	--	2.0	--	6.1	--	-8.9	--	-7.7	--	--	--	--	--	-6.0	Sep-11
Real Assets (Net)	-0.9	--	2.0	--	6.1	--	-8.9	--	-7.7	--	--	--	--	--	-6.0	
<i>Real Asset Blend¹</i>	3.9	--	6.3	--	11.6	--	6.6	--	5.8	--	--	--	--	--	5.8	Sep-11
Cash (Gross)	0.1	--	0.3	--	0.5	--	0.2	--	0.2	--	0.2	--	0.8	--	3.3	Sep-85
Cash (Net)	0.1	--	0.3	--	0.5	--	0.2	--	0.2	--	0.2	--	0.8	--	3.3	
<i>91 Day T-Bills</i>	0.1	--	0.2	--	0.4	--	0.2	--	0.1	--	0.1	--	0.5	--	3.4	Sep-85
Real Estate (Gross)	1.6	58	3.4	49	8.0	44	12.5	17	12.6	19	13.3	30	5.9	14	7.0	Mar-86
Real Estate (Net)	1.6	58	3.2	55	7.3	59	11.6	44	11.6	47	12.3	57	4.9	51	5.9	
<i>NCREIF-ODCE</i>	1.8	43	3.9	38	8.3	38	11.8	35	12.0	33	13.5	24	5.6	26	7.3	Mar-86
<i>InvestorForce All DB Real Estate Pub+Priv Gross Median</i>	1.7		3.4		7.7		11.4		11.5		12.6		4.9		7.2	Mar-86

¹ See Policy Index and Benchmark History.

Equity environment

— The U.S. economic environment has shifted in a materially more positive direction, post-election. This move was reflected in an upward adjustment to equity prices. We are relatively bullish on U.S. earnings growth in the near term, but remain concerned that investors are paying for this excess growth upfront through higher valuations. We maintain a neutral weight to U.S. equities.

— According to FactSet, the estimated Q1 2017 earnings growth rate of the S&P 500 was 9.2% YoY. The estimate was revised downward from 12.5% on December 31st due to negative EPS guidance in the Materials and Consumer Discretionary sectors.

— Growth equities outperformed value equities in Q1. The Russell

1000 Growth Index and Russell 1000 Value Index returned 8.9% and 3.3%, respectively.

— The U.S. dollar fell 3.6% in Q1 on a trade-weighted basis, which has affected the returns of portfolios with unhedged currency exposure.

— As discussed recently in our *Sound Thinking* research piece, investors should be mindful of their biases in portfolio construction. One particularly prevalent bias is the tendency for investors to hold greater exposure to the markets where they reside (home country bias). As with any portfolio tilt, investors should understand why they hold it, have a solid basis for the exposure, and understand the tracking error the position introduces to the portfolio.

	QTD TOTAL RETURN		YTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (Russell 1000)	6.0%		6.0%		17.4%	
US Small Cap (Russell 2000)	2.5%		2.5%		26.2%	
US Large Value (Russell 1000 Value)	3.3%		3.3%		19.2%	
US Large Growth (Russell 1000 Growth)	8.9%		8.9%		15.8%	
International Large (MSCI EAFE)	7.2%	5.0%	7.2%	5.0%	11.7%	18.9%
Eurozone (Euro Stoxx 50)	8.3%	7.2%	8.3%	7.2%	12.9%	21.7%
U.K. (FTSE 100)	4.9%	3.8%	4.9%	3.8%	7.3%	23.3%
Japan (NIKKEI 225)	4.3%	0.1%	4.3%	0.1%	15.8%	14.7%
Emerging Markets (MSCI Emerging Markets)	11.4%	7.3%	11.4%	7.3%	17.2%	12.5%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 3/31/17

Domestic equity

The U.S. economic environment has shifted in a materially more positive direction, post-election, as reflected by rising in equity prices. We are relatively bullish on U.S. earnings growth in the near term but remain concerned that investors are paying for this excess growth upfront through higher valuations. We maintain a neutral weight to U.S. equities.

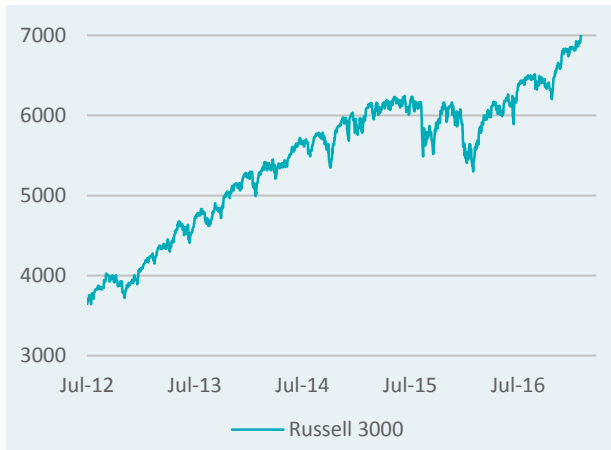
Higher equity prices and earnings expectations have been influenced by corporate tax cuts and deregulation

proposed by the new administration. There have been no further details released on timing of tax cuts, and lofty expectations may leave room for disappointment.

According to FactSet, Q1 2017 S&P 500 earnings are expected to grow 9.2% YoY. The estimate was revised downward from 12.5% on December 31st due to negative EPS guidance in the Materials and Consumer Discretionary sectors.

Investors may be paying for higher earnings growth through elevated valuations

U.S. EQUITIES



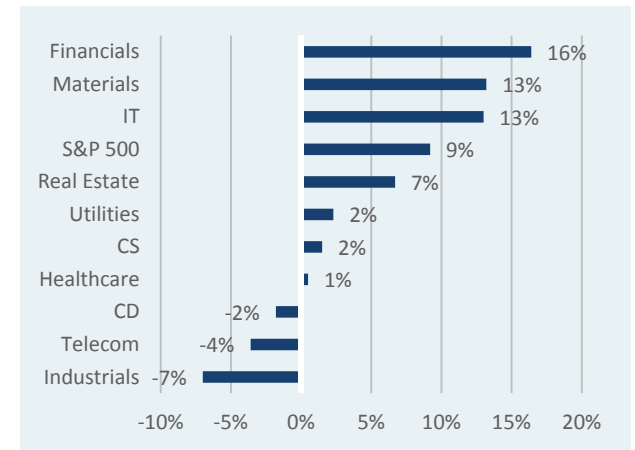
Source: Russell Investments, as of 4/3/17

S&P 500 EPS GROWTH



Source: Bloomberg, as of 12/31/16

Q1 FORECAST EPS GROWTH



Source: FactSet, as of 4/14/17

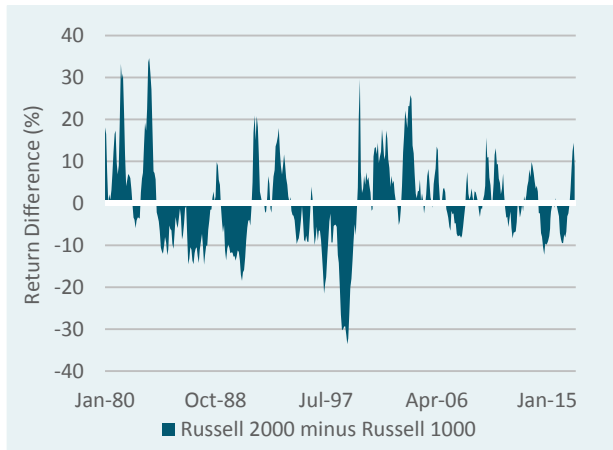
Domestic equity size and style

Growth equities outperformed value equities during the quarter. The Russell 1000 Growth Index and Russell 1000 Value Index returned 8.9% and 3.3%, respectively. Financial sector performance had a significant effect on the value premium, affected by uncertainty around the direction of interest rates and deregulation proposals.

U.S. large cap equities outperformed small cap during the quarter, though small caps have delivered strong

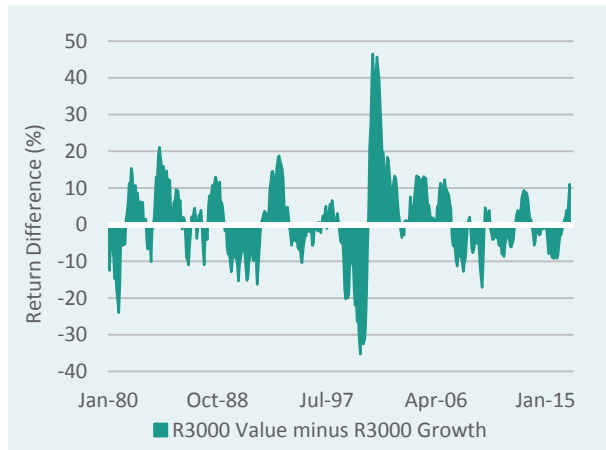
year-over-year outperformance. Small cap equity valuations remain considerably elevated relative to large cap equities which will likely act as a headwind to future performance. However, if President Trump's deregulation proposals are seen through, this should benefit smaller American companies. Further U.S. dollar appreciation would also benefit smaller companies on a relative basis due to less international currency exposure.

SMALL CAP VS LARGE CAP (YOY)



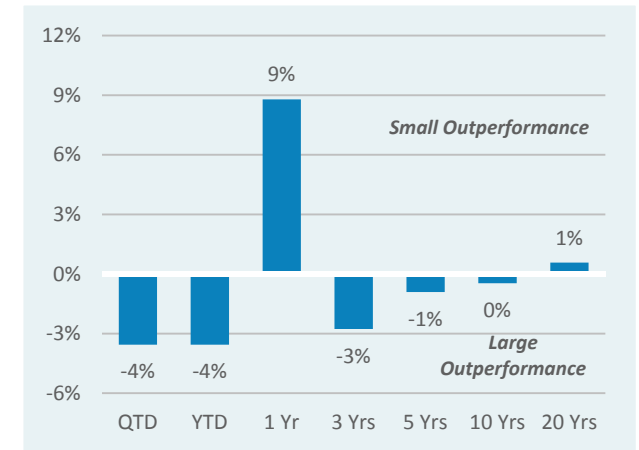
Source: Russell Investments, as of 3/31/17

VALUE VS GROWTH (YOY)



Source: Russell Investments, as of 3/31/17

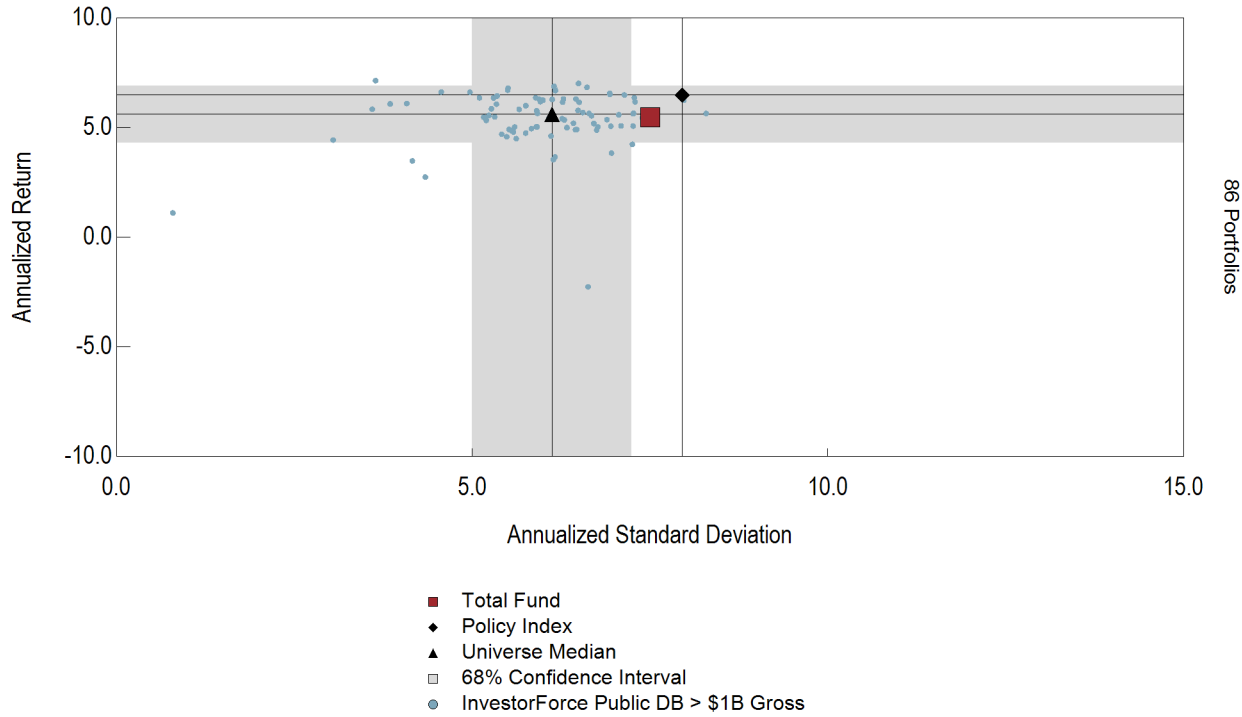
U.S. LARGE VS. SMALL RELATIVE PERFORMANCE



Source: Morningstar, as of 3/31/17

Total Fund
Risk vs. Return (3 Years)

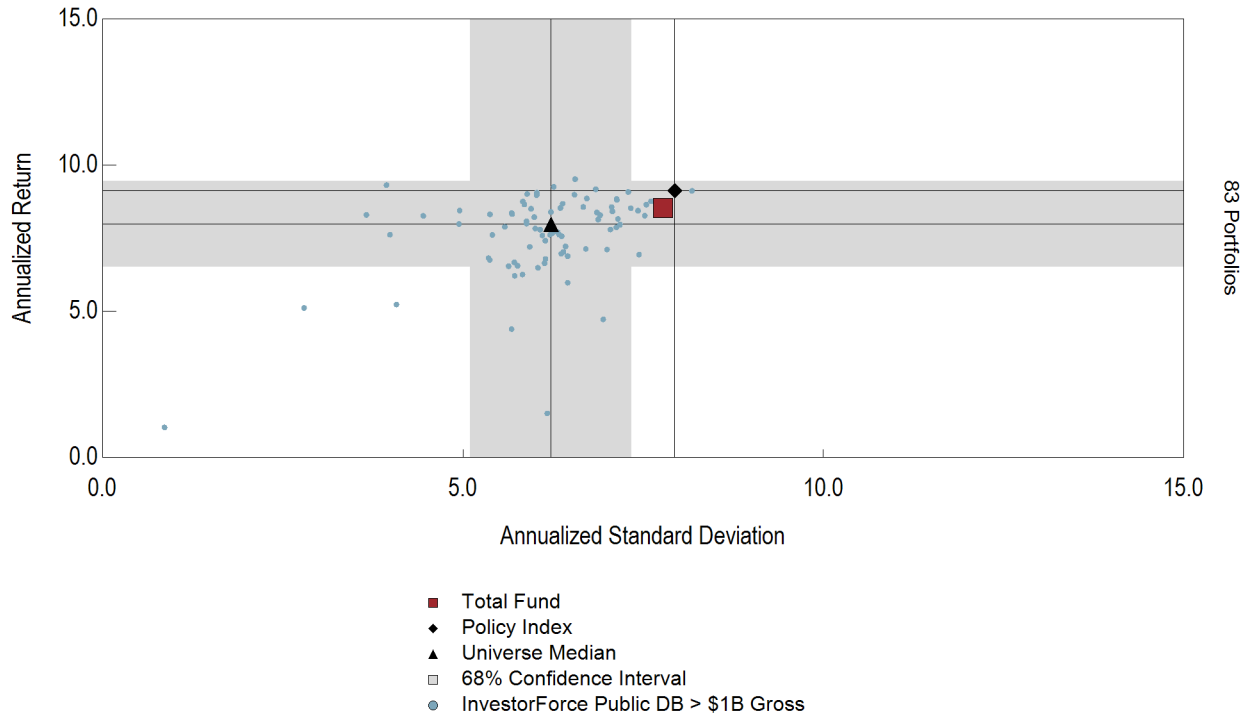
Period Ending: March 31, 2017



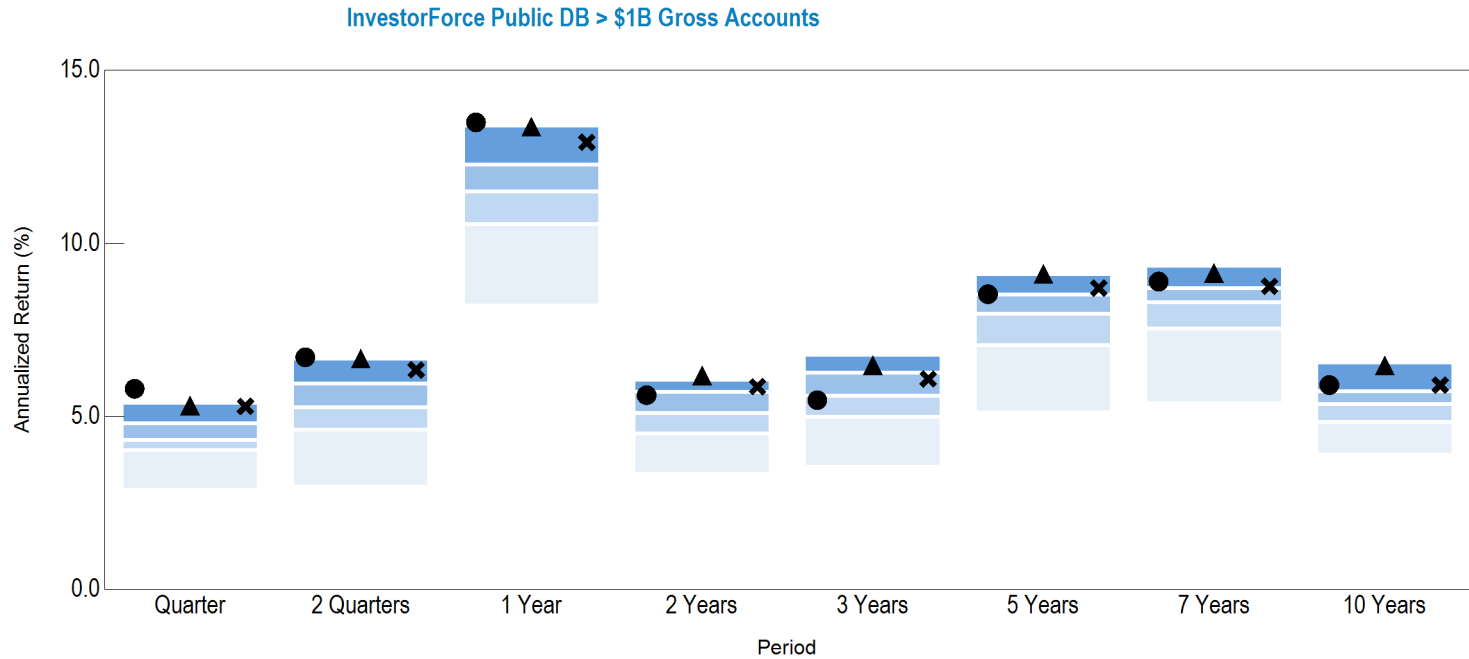
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Fund	5.5%	55	7.5%	98	0.7	88
Policy Index	6.5%	15	8.0%	99	0.8	71
Allocation Index	6.1%	34	7.8%	99	0.8	78
InvestorForce Public DB > \$1B Gross Median	5.6%	--	6.1%	--	0.9	--

Total Fund
Risk vs. Return (5 Years)

Period Ending: March 31, 2017



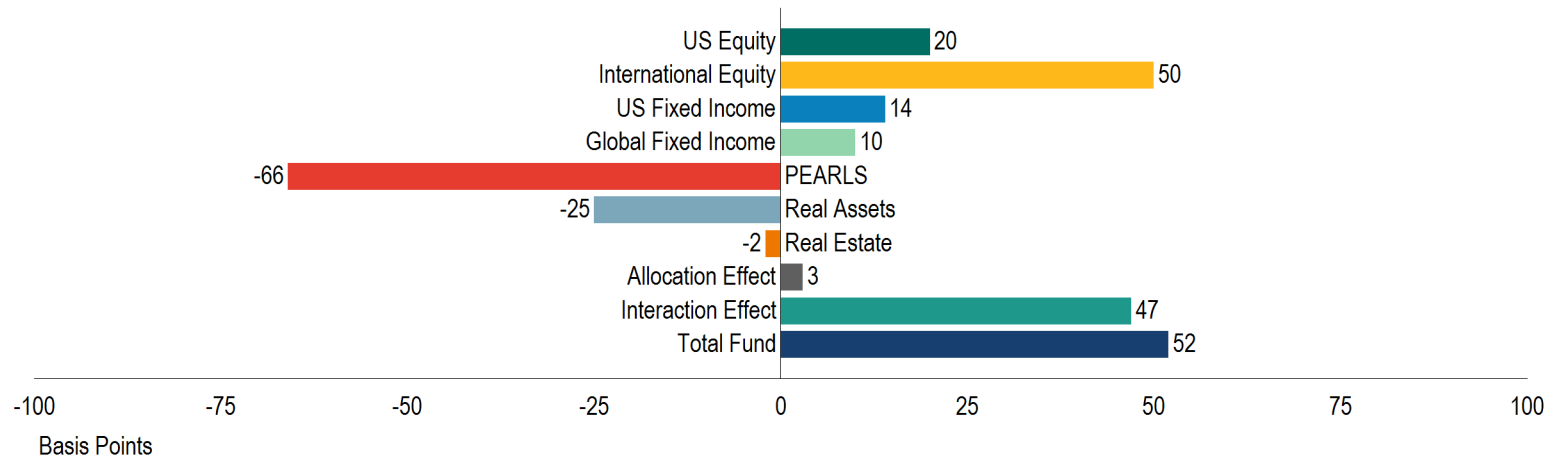
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank
Total Fund	8.5%	25	7.8%	99	1.1	83
Policy Index	9.1%	5	7.9%	99	1.1	67
Allocation Index	8.7%	18	7.9%	99	1.1	75
InvestorForce Public DB > \$1B Gross Median	8.0%	--	6.2%	--	1.2	--



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	5.4	6.7	13.4	6.1	6.8	9.1	9.4	6.6
25th Percentile	4.8	6.0	12.3	5.7	6.3	8.5	8.7	5.7
Median	4.3	5.3	11.5	5.1	5.6	8.0	8.3	5.4
75th Percentile	4.0	4.6	10.6	4.5	5.0	7.1	7.5	4.9
95th Percentile	2.9	3.0	8.2	3.4	3.6	5.1	5.4	3.9
# of Portfolios	105	104	98	93	86	83	75	71
● Total Fund	5.8 (2)	6.7 (5)	13.5 (5)	5.6 (31)	5.5 (55)	8.5 (25)	8.9 (14)	5.9 (17)
▲ Policy Index	5.3 (6)	6.7 (5)	13.4 (6)	6.2 (3)	6.5 (15)	9.1 (5)	9.1 (9)	6.5 (7)
✕ Allocation Index	5.3 (7)	6.3 (11)	12.9 (11)	5.9 (16)	6.1 (34)	8.7 (18)	8.8 (22)	5.9 (17)

Total Fund
Performance Attribution (One Quarter)

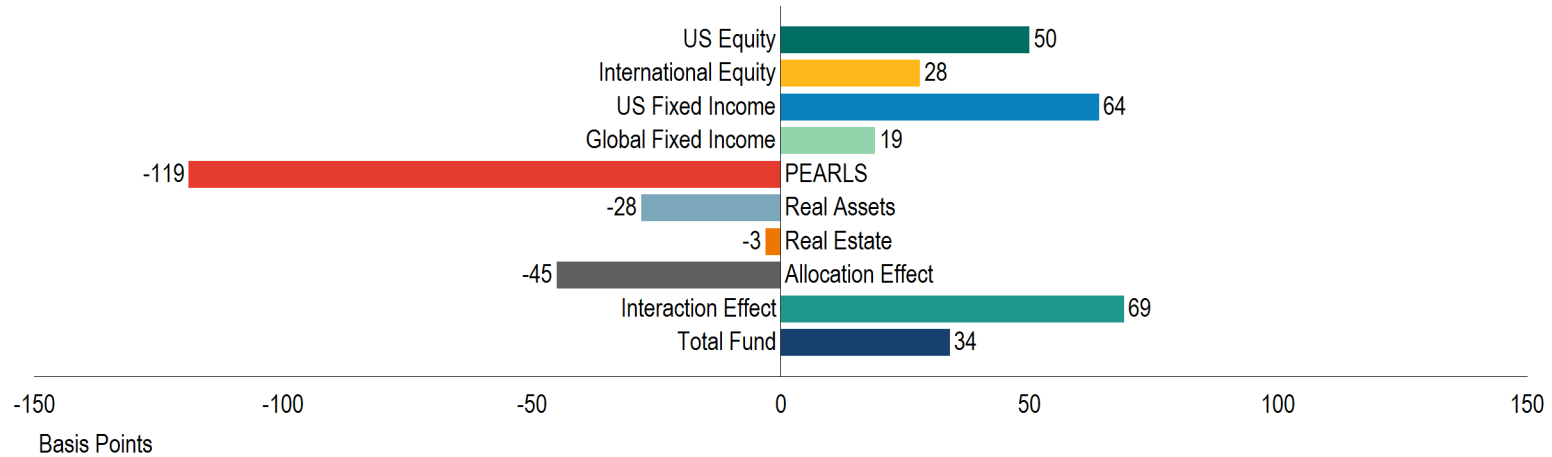
Period Ending: March 31, 2017



	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	6.48%	5.74%	0.73%	0.20%	0.02%	0.04%	0.27%
International Equity	10.06%	8.10%	1.96%	0.50%	0.06%	0.04%	0.60%
US Fixed Income	1.90%	0.82%	1.09%	0.14%	0.03%	-0.01%	0.16%
Global Fixed Income	5.95%	1.55%	4.39%	0.10%	-0.07%	0.08%	0.11%
PEARLS	2.44%	6.05%	-3.61%	-0.66%	-0.06%	0.27%	-0.45%
Real Assets	-0.92%	3.89%	-4.81%	-0.25%	0.01%	0.05%	-0.19%
Real Estate	1.56%	1.77%	-0.21%	-0.02%	0.03%	0.00%	0.01%
Total	5.80%	5.27%	0.52%	0.02%	0.03%	0.47%	0.52%

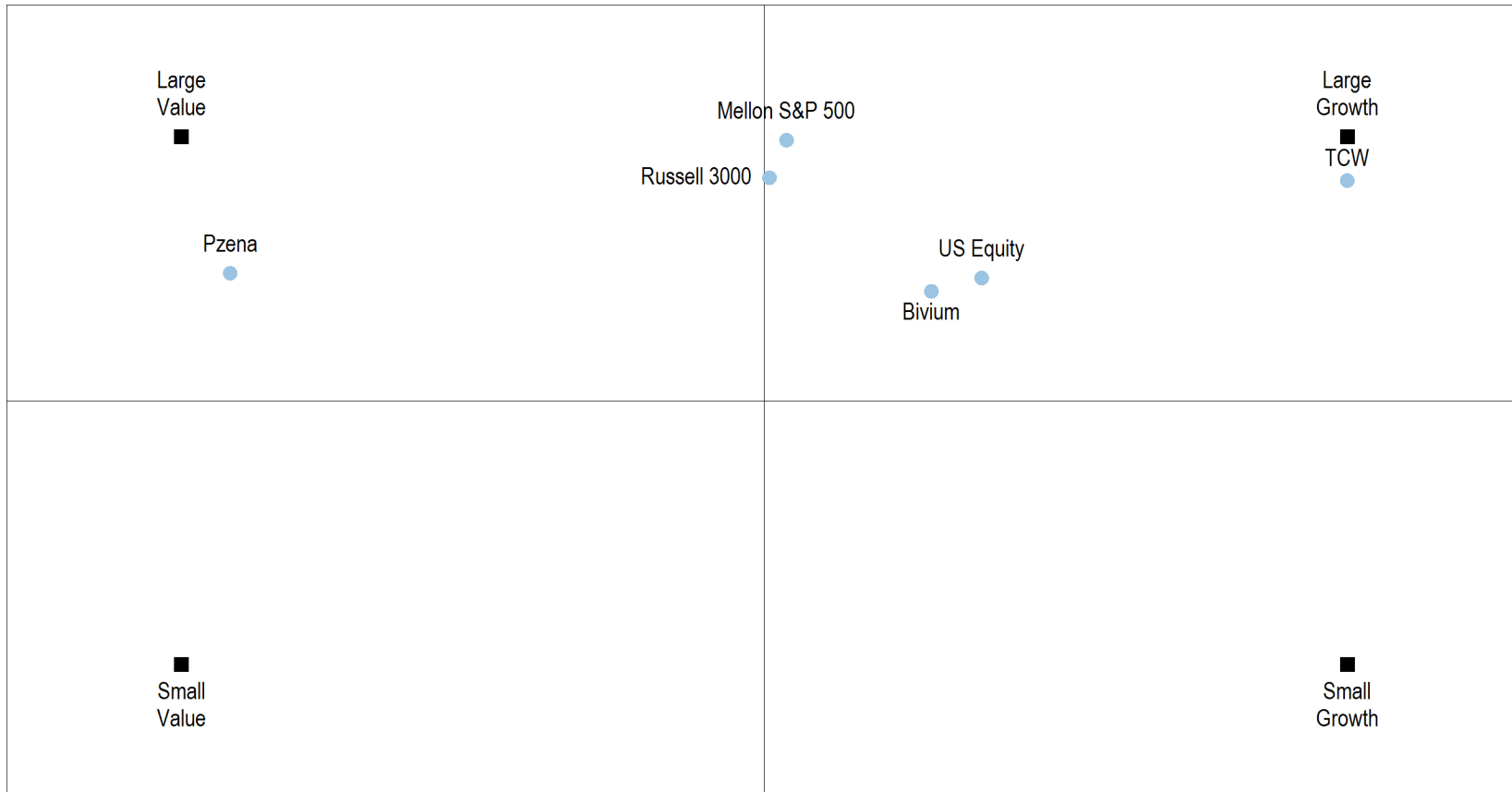
Total Fund
Performance Attribution (One Year)

Period Ending: March 31, 2017

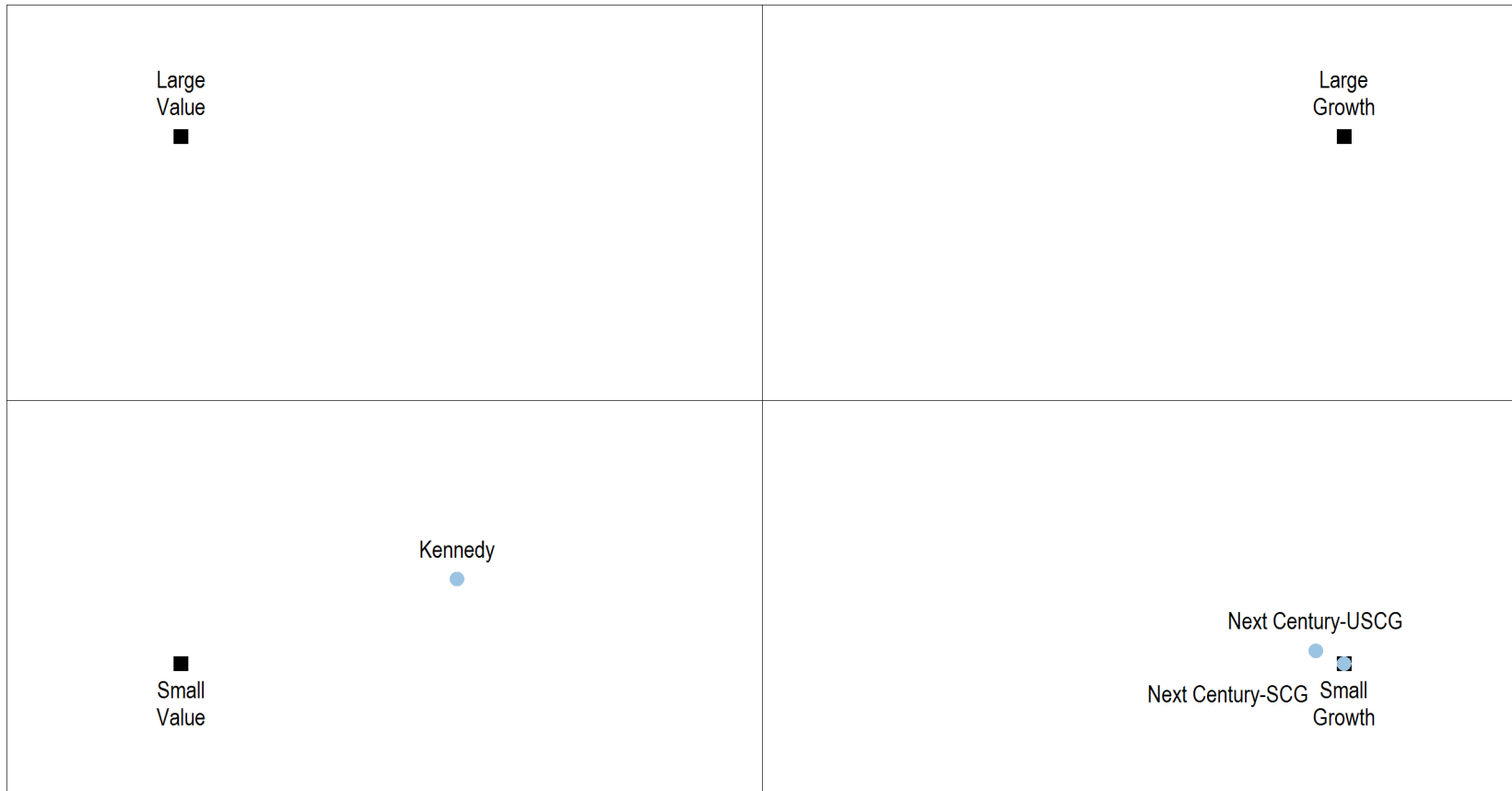


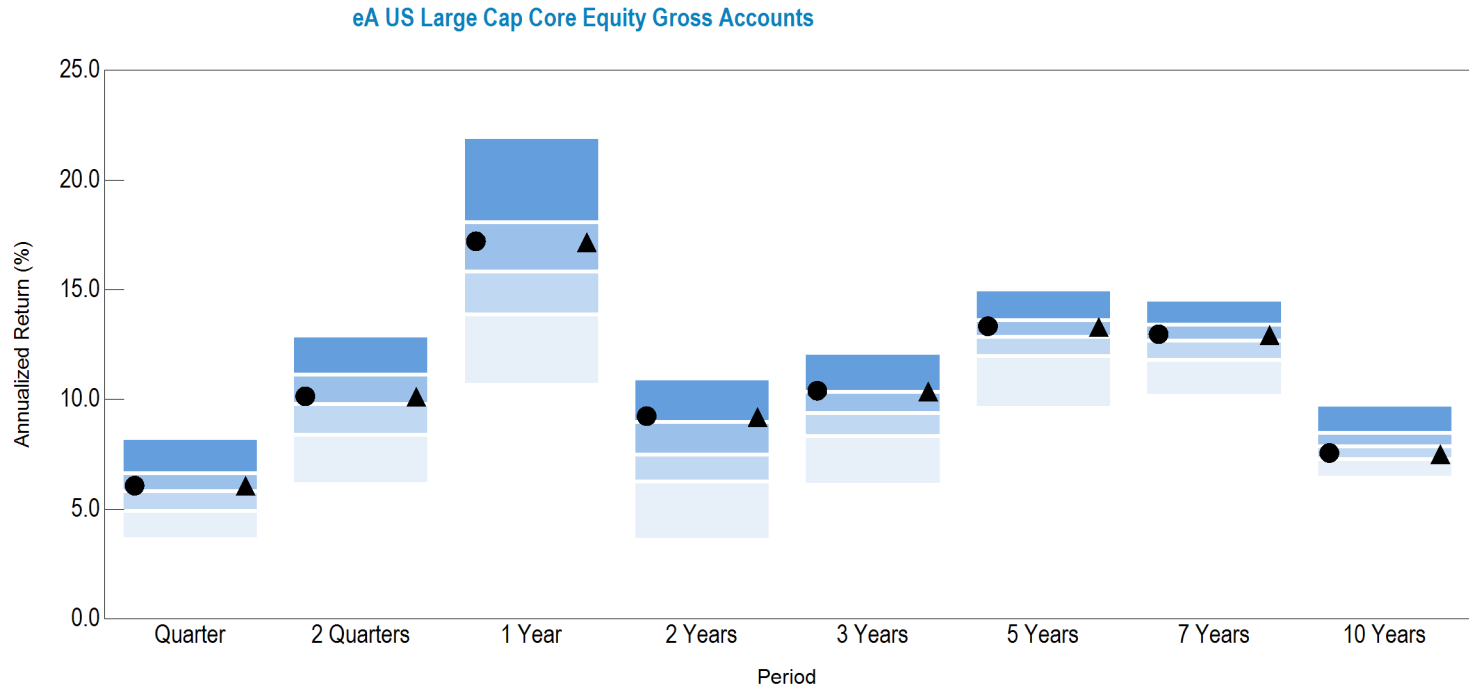
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	19.92%	18.07%	1.85%	0.50%	0.16%	0.09%	0.75%
International Equity	14.64%	13.55%	1.09%	0.28%	0.01%	0.03%	0.33%
US Fixed Income	4.99%	0.44%	4.55%	0.64%	0.04%	-0.01%	0.66%
Global Fixed Income	3.57%	-3.65%	7.22%	0.19%	-0.35%	0.15%	-0.01%
PEARLS	11.76%	19.07%	-7.30%	-1.19%	-0.37%	0.37%	-1.19%
Real Assets	6.08%	11.60%	-5.52%	-0.28%	0.02%	0.04%	-0.22%
Real Estate	8.00%	8.33%	-0.33%	-0.03%	0.03%	0.01%	0.01%
Total	13.49%	13.15%	0.34%	0.10%	-0.45%	0.69%	0.34%

US Effective Style Map



US Effective Style Map





	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	8.2	12.9	21.9	11.0	12.1	15.0	14.5	9.7
25th Percentile	6.7	11.1	18.1	9.0	10.4	13.6	13.4	8.5
Median	5.9	9.8	15.9	7.5	9.4	12.9	12.7	7.9
75th Percentile	4.9	8.4	13.9	6.3	8.3	12.0	11.8	7.3
95th Percentile	3.7	6.2	10.7	3.6	6.1	9.6	10.2	6.4
# of Portfolios	315	315	315	312	308	284	257	231
● Mellon S&P 500	6.1 (44)	10.1 (44)	17.2 (36)	9.2 (22)	10.4 (25)	13.3 (37)	13.0 (44)	7.6 (64)
▲ S&P 500	6.1 (44)	10.1 (44)	17.2 (36)	9.2 (23)	10.4 (26)	13.3 (38)	12.9 (45)	7.5 (67)

Characteristics

	Portfolio	S&P 500
Number of Holdings	500	505
Weighted Avg. Market Cap. (\$B)	152.2	151.4
Median Market Cap. (\$B)	19.9	19.9
Price To Earnings	24.6	23.7
Price To Book	4.9	4.4
Price To Sales	3.6	3.3
Return on Equity (%)	21.0	18.8
Yield (%)	2.0	2.0
Beta (holdings; domestic)	1.0	1.0

Top Holdings

APPLE	3.7%
MICROSOFT	2.5%
ALPHABET 'C'	2.5%
AMAZON.COM	1.7%
EXXON MOBIL	1.7%
JOHNSON & JOHNSON	1.7%
FACEBOOK CLASS A	1.7%
BERKSHIRE HATHAWAY 'B'	1.6%
JP MORGAN CHASE & CO.	1.6%
GENERAL ELECTRIC	1.3%

Best Performers

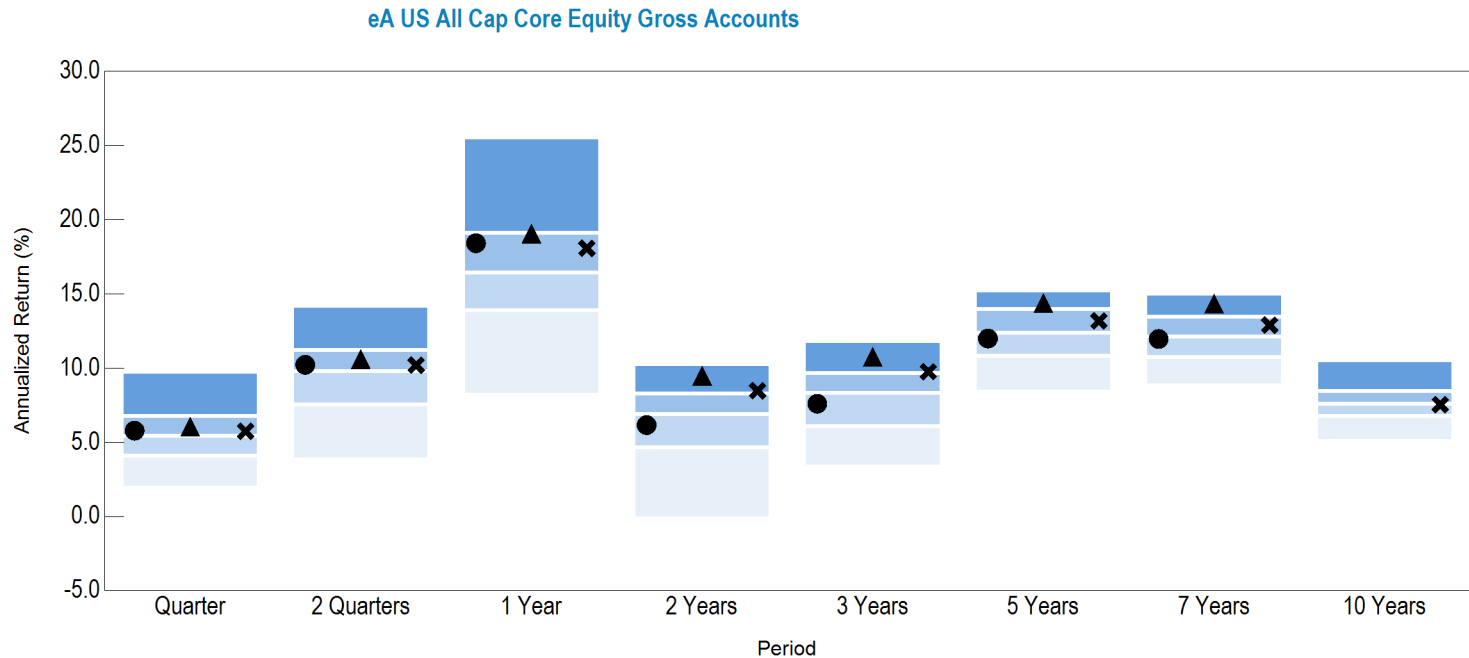
	Return %
NRG ENERGY (NRG)	52.8%
VERTEX PHARMS. (VRTX)	48.4%
ALCOA	42.4%
ACTIVISION BLIZZARD	38.9%
VIACOM 'B' (VIAB)	33.4%
INCYTE	33.3%
ILLUMINA	33.3%
WYNN RESORTS	33.2%
MICRON TECHNOLOGY	31.8%
IDEXX LABORATORIES	31.8%

Worst Performers

	Return %
FRONTIER COMMUNICATIONS (FTR)	-34.1%
ENDO INTERNATIONAL (ENDP)	-32.2%
L BRANDS (LB)	-27.7%
UNDER ARMOUR CL C ORD (UA)	-27.3%
SIGNET JEWELERS (SIG)	-26.3%
SOUTHWESTERN ENERGY (SWN)	-24.5%
TARGET (TGT)	-22.9%
HESS	-22.2%
PERRIGO (PRGO)	-20.1%
APACHE	-18.7%

Mellon S&P 500 Performance Attribution vs. S&P 500

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	-6.8%	-6.8%	7.4%	7.4%			
Materials	0.0%	0.0%	0.0%	0.0%	6.4%	6.4%	2.9%	2.9%			
Industrials	0.0%	0.0%	0.0%	0.0%	4.4%	4.4%	10.3%	10.3%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	8.3%	8.5%	11.8%	12.0%			
Consumer Staples	0.0%	0.0%	0.0%	0.0%	6.4%	6.3%	9.4%	9.4%			
Health Care	0.0%	0.0%	0.0%	0.0%	8.2%	8.2%	13.6%	13.6%			
Financials	0.0%	0.0%	0.0%	0.0%	2.5%	2.5%	14.9%	14.9%			
Information Technology	0.0%	0.0%	0.0%	0.0%	12.6%	12.6%	20.9%	20.8%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-4.0%	-4.0%	2.7%	2.7%			
Utilities	0.0%	0.0%	0.0%	0.0%	6.4%	6.4%	3.2%	3.2%			
Real Estate	0.0%	0.0%	0.0%	0.0%	3.6%	3.6%	2.9%	2.9%			
Cash	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	0.0%	=	0.0%	+	0.0%	+	0.0%	6.0%	6.1%	100.0%	100.0%



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	9.7	14.2	25.5	10.3	11.8	15.2	15.0	10.5
25th Percentile	6.8	11.3	19.2	8.3	9.7	14.0	13.5	8.5
Median	5.4	9.8	16.5	6.9	8.4	12.4	12.2	7.6
75th Percentile	4.1	7.6	13.9	4.7	6.1	10.9	10.8	6.8
95th Percentile	2.0	3.8	8.2	-0.1	3.4	8.4	8.9	5.1
# of Portfolios	121	121	121	115	110	105	93	79
● Bivium	5.8 (42)	10.2 (42)	18.4 (36)	6.2 (61)	7.6 (63)	12.0 (55)	12.0 (57)	-- (--)
▲ Russell 3000 +1%	6.0 (38)	10.6 (37)	19.1 (27)	9.5 (11)	10.8 (15)	14.4 (19)	14.3 (11)	-- (--)
✕ Russell 3000	5.7 (42)	10.2 (43)	18.1 (38)	8.5 (22)	9.8 (22)	13.2 (40)	12.9 (36)	7.5 (52)

Characteristics

	Portfolio	Russell 3000
Number of Holdings	167	2,943
Weighted Avg. Market Cap. (\$B)	116.6	127.3
Median Market Cap. (\$B)	48.6	1.6
Price To Earnings	21.5	23.8
Price To Book	4.4	4.1
Price To Sales	3.3	3.4
Return on Equity (%)	24.1	16.8
Yield (%)	1.8	1.9
Beta (holdings; domestic)	1.0	1.0

Top Holdings

ORACLE	4.7%
NATIONAL OILWELL VARCO	3.2%
CVS HEALTH	2.9%
MASTERCARD	2.6%
MCKESSON	2.4%
APPLE	2.4%
GKN SPN.ADR 1:1	2.4%
AMERISOURCEBERGEN	2.3%
SWISS RE SPN.ADR 1:4	2.2%
VISA 'A'	2.1%

Best Performers

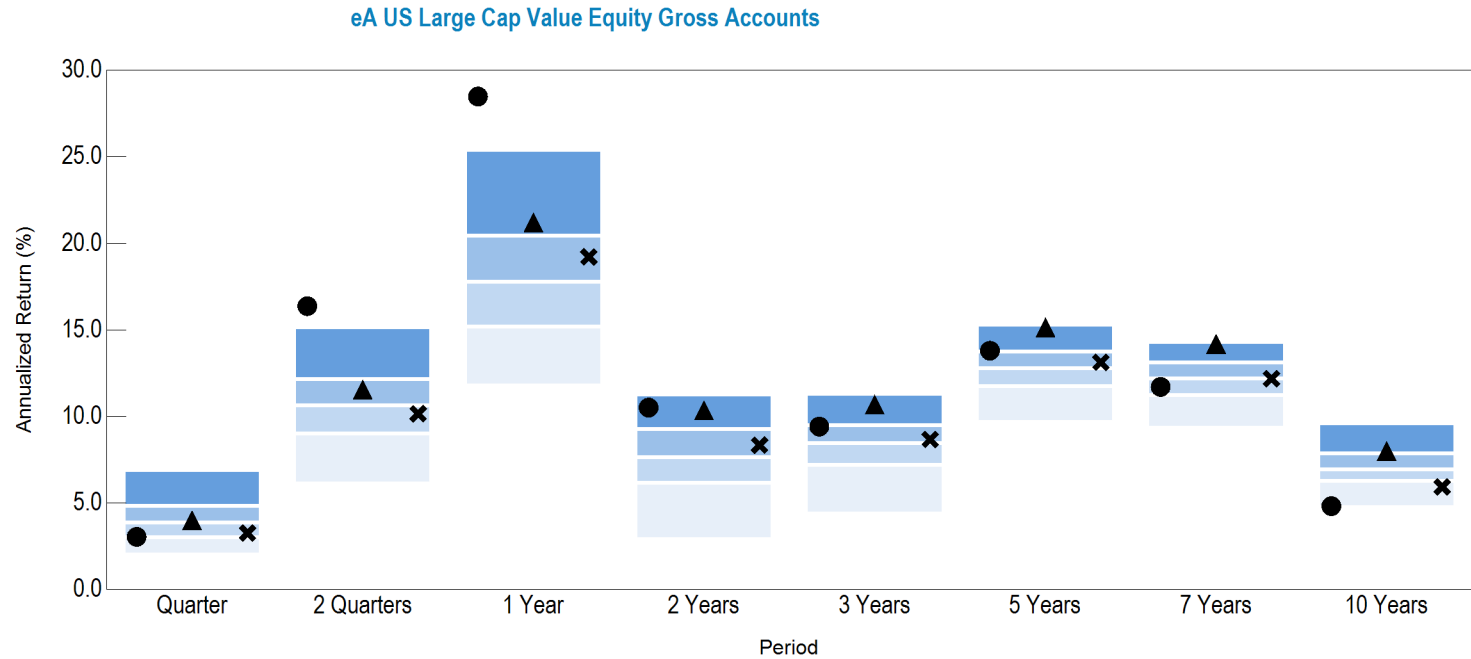
	Return %
ACTIVISION BLIZZARD (ATVI)	38.9%
SKYWORKS SOLUTIONS (SWKS)	31.6%
CSX (CSX)	30.0%
QORVO (QRVO)	30.0%
ADOBE SYSTEMS (ADBE)	26.4%
APPLE (AAPL)	24.6%
AVAGO TECHNOLOGIES (AVGO)	24.4%
FACEBOOK CLASS A (FB)	23.5%
MCGRAW HILL FINANCIAL (SPGI)	22.0%
PRICELINE GROUP (PCLN)	21.4%

Worst Performers

	Return %
FOSSIL GROUP (FOSL)	-32.5%
APACHE (APA)	-18.7%
SABRE (SABR)	-14.5%
KROGER (KR)	-14.2%
QUALCOMM (QCOM)	-11.2%
ANADARKO PETROLEUM (APC)	-11.0%
OCCIDENTAL PTL. (OXY)	-10.0%
HALLIBURTON (HAL)	-8.7%
EXXON MOBIL (XOM)	-8.3%
CHEVRON (CVX)	-7.9%

Bivium Performance Attribution vs. Russell 3000

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.8%	0.7%	0.3%	-0.3%	3.8%	-6.9%	4.5%	6.9%			
Materials	0.0%	0.0%	0.0%	0.0%	7.4%	6.5%	1.1%	3.4%			
Industrials	0.4%	0.5%	0.1%	-0.3%	9.0%	4.1%	5.8%	10.9%			
Consumer Discretionary	-0.4%	-0.4%	0.0%	-0.1%	4.9%	7.8%	14.7%	12.5%			
Consumer Staples	-0.2%	-0.3%	0.0%	0.1%	2.3%	5.9%	6.7%	8.4%			
Health Care	0.3%	0.1%	0.1%	0.0%	9.9%	8.8%	17.1%	12.9%			
Financials	-0.2%	0.0%	-0.2%	0.0%	2.3%	2.2%	20.5%	15.5%			
Information Technology	0.9%	0.5%	0.3%	0.1%	14.6%	11.9%	24.5%	19.9%			
Telecommunication Services	0.0%	0.0%	0.1%	0.0%	-4.7%	-3.5%	1.7%	2.4%			
Utilities	0.0%	0.0%	0.0%	0.0%	5.6%	6.1%	0.9%	3.2%			
Real Estate	0.2%	0.2%	0.1%	-0.1%	8.7%	2.9%	1.8%	4.1%			
Cash	0.0%	0.0%	0.0%	0.0%	0.1%	--	0.7%	0.0%			
Portfolio	1.8%	=	1.5%	+	0.7%	+	-0.5%	7.5%	5.8%	100.0%	100.0%



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	6.9	15.1	25.4	11.3	11.3	15.3	14.3	9.6
25th Percentile	4.8	12.2	20.5	9.3	9.5	13.8	13.1	7.9
Median	3.9	10.7	17.8	7.7	8.5	12.8	12.2	7.0
75th Percentile	3.0	9.0	15.2	6.2	7.2	11.8	11.2	6.3
95th Percentile	2.0	6.1	11.8	2.9	4.4	9.7	9.4	4.8
# of Portfolios	340	340	340	339	333	316	295	261
● Pzena	3.0 (75)	16.4 (2)	28.5 (1)	10.5 (11)	9.4 (28)	13.8 (24)	11.7 (61)	4.8 (95)
▲ Russell 1000 Value +2%	4.0 (48)	11.6 (35)	21.2 (20)	10.4 (12)	10.7 (8)	15.1 (7)	14.2 (6)	8.0 (23)
✕ Russell 1000 Value	3.3 (71)	10.2 (57)	19.2 (35)	8.3 (38)	8.7 (45)	13.1 (43)	12.2 (51)	5.9 (82)

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	42	692
Weighted Avg. Market Cap. (\$B)	82.4	115.4
Median Market Cap. (\$B)	31.4	8.3
Price To Earnings	21.9	21.1
Price To Book	2.0	2.5
Price To Sales	1.8	2.9
Return on Equity (%)	10.4	11.2
Yield (%)	2.2	2.4
Beta (holdings; domestic)	1.3	1.0

Top Holdings

CITIGROUP	3.9%
EXXON MOBIL	3.7%
MORGAN STANLEY	3.6%
ROYAL DUTCH SHELL A ADR 1:2	3.6%
GOLDMAN SACHS GP.	3.5%
BANK OF AMERICA	3.5%
ORACLE	3.5%
VOYA FINANCIAL	3.3%
COGNIZANT TECH.SLTN.'A'	3.2%
DOVER	3.2%

Best Performers

	Return %
SEAGATE TECH. (STX)	22.0%
HEWLETT-PACKARD (HPQ)	21.4%
ORACLE (ORCL)	16.5%
STANLEY BLACK & DECKER (SWK)	16.4%
ABBOTT LABORATORIES (ABT)	16.4%
PARKER-HANNIFIN (PH)	15.0%
NEWS 'A' (NWSA)	14.4%
CORNING (GLW)	11.9%
HILTON GRAND VACATIONS ORD (HGV)	10.2%
CIGNA (CI)	9.8%

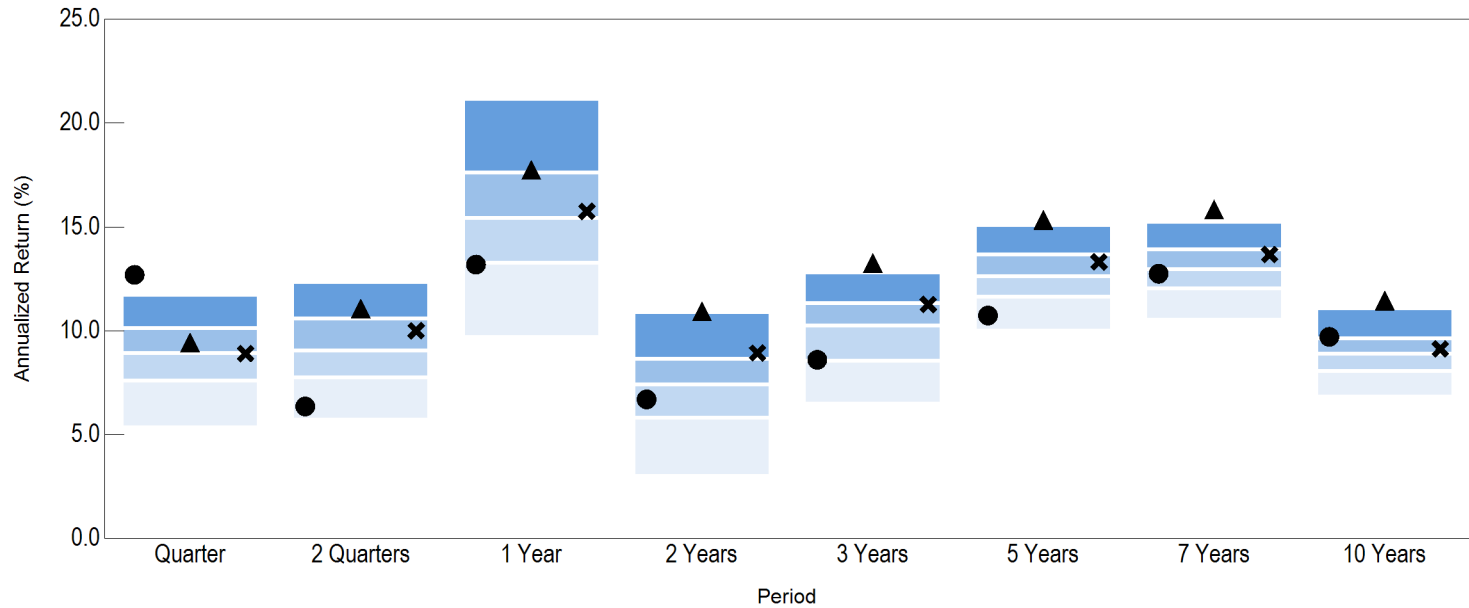
Worst Performers

	Return %
CENOVUS ENERGY (NYS) (CVE)	-25.1%
HALLIBURTON (HAL)	-8.7%
EXXON MOBIL (XOM)	-8.3%
MURPHY OIL (MUR)	-7.3%
BP SPN.ADR 1:6 (BP)	-6.0%
AMERICAN INTL.GP. (AIG)	-3.9%
GOLDMAN SACHS GP. (GS)	-3.8%
PARK HOTELS RESORTS ORD (PK)	-3.5%
VOYA FINANCIAL (VOYA)	-3.2%
FORD MOTOR (F)	-2.5%

Pzena Performance Attribution vs. Russell 1000 Value

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.3%	-0.2%	0.0%	0.0%	-8.2%	-6.6%	13.7%	13.4%			
Materials	-0.1%	--	-0.1%	--	--	7.0%	0.0%	2.9%			
Industrials	0.7%	0.9%	0.0%	-0.2%	12.7%	3.6%	8.0%	10.0%			
Consumer Discretionary	0.0%	0.0%	0.0%	0.0%	2.8%	3.0%	11.4%	4.5%			
Consumer Staples	-0.4%	-0.3%	-0.3%	0.2%	5.0%	8.1%	2.1%	8.1%			
Health Care	-0.3%	0.3%	-0.4%	-0.2%	12.3%	9.3%	4.0%	10.2%			
Financials	-0.6%	-0.3%	-0.2%	-0.2%	1.2%	2.2%	42.7%	26.9%			
Information Technology	0.5%	0.1%	0.3%	0.1%	11.0%	9.9%	14.6%	9.4%			
Telecommunication Services	0.2%	--	0.2%	--	--	-2.8%	0.0%	3.8%			
Utilities	-0.2%	--	-0.2%	--	--	6.3%	0.0%	6.1%			
Real Estate	0.1%	--	0.1%	--	--	1.9%	0.0%	4.6%			
Cash	-0.1%	0.0%	-0.1%	0.0%	0.1%	--	3.4%	0.0%			
Portfolio	-0.4%	=	0.6%	+	-0.7%	+	-0.3%	2.9%	3.3%	100.0%	100.0%

eA US Large Cap Growth Equity Gross Accounts



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	11.7	12.3	21.2	10.9	12.8	15.1	15.2	11.1
25th Percentile	10.2	10.6	17.6	8.7	11.3	13.7	13.9	9.6
Median	8.9	9.1	15.5	7.4	10.3	12.6	13.0	8.9
75th Percentile	7.6	7.8	13.3	5.8	8.6	11.7	12.1	8.1
95th Percentile	5.4	5.8	9.7	3.0	6.5	10.0	10.5	6.9
# of Portfolios	275	275	275	274	272	256	247	225
● TCW	12.7 (3)	6.4 (91)	13.2 (77)	6.7 (63)	8.6 (75)	10.7 (88)	12.8 (58)	9.7 (24)
▲ Russell 1000 Growth +2%	9.4 (39)	11.1 (19)	17.8 (23)	10.9 (5)	13.3 (4)	15.3 (4)	15.8 (2)	11.5 (3)
✕ Russell 1000 Growth	8.9 (51)	10.0 (34)	15.8 (48)	8.9 (21)	11.3 (28)	13.3 (33)	13.7 (32)	9.1 (45)

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	30	609
Weighted Avg. Market Cap. (\$B)	111.0	159.7
Median Market Cap. (\$B)	54.6	9.3
Price To Earnings	37.9	26.2
Price To Book	8.8	7.1
Price To Sales	7.7	4.0
Return on Equity (%)	19.3	28.5
Yield (%)	0.6	1.5
Beta (holdings; domestic)	1.1	1.0

Top Holdings

ALPHABET 'C'	6.9%
FACEBOOK CLASS A	6.2%
VISA 'A'	5.6%
AMERICAN TOWER	5.3%
SALESFORCE.COM	5.1%
CELGENE	5.0%
AMAZON.COM	4.9%
PRICELINE GROUP	4.4%
ADOBE SYSTEMS	4.3%
STARBUCKS	4.2%

Best Performers

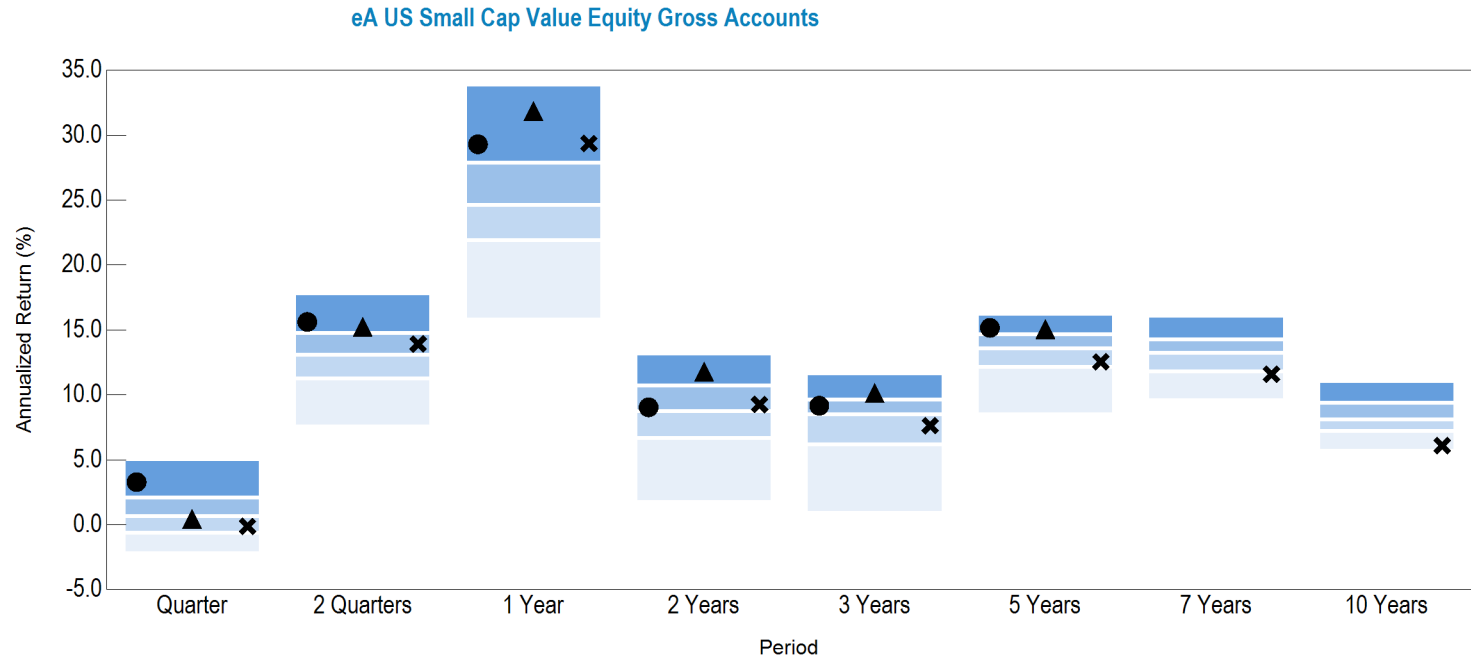
	Return %
MOBILEYE (MBLY)	61.1%
ILLUMINA (ILMN)	33.3%
ACADIA HEALTHCARE CO. (ACHC)	31.7%
ADOBE SYSTEMS (ADBE)	26.4%
FACEBOOK CLASS A (FB)	23.5%
SPLUNK (SPLK)	21.8%
PRICELINE GROUP (PCLN)	21.4%
SALESFORCE.COM (CRM)	20.5%
AMAZON.COM (AMZN)	18.2%
CHIPOTLE MEXN.GRILL (CMG)	18.1%

Worst Performers

	Return %
UNDER ARMOUR 'A' (UAA)	-31.9%
UNDER ARMOUR CL C ORD (UA)	-27.3%
AIR PRDS.& CHEMS. (APD)	-5.3%
CONCHO RESOURCES (CXO)	-3.2%
ALEXION PHARMS. (ALXN)	-0.9%
CVS HEALTH (CVS)	0.1%
CHARLES SCHWAB (SCHW)	3.6%
ACE (CB)	3.6%
MONSTER BEVERAGE (MNST)	4.1%
COSTCO WHOLESALE (COST)	5.0%

TCW Performance Attribution vs. Russell 1000 Growth

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	-0.1%	0.0%	-3.2%	-9.2%	1.0%	0.6%			
Materials	-0.1%	-0.4%	0.1%	0.2%	-5.3%	6.3%	1.5%	3.6%			
Industrials	0.4%	0.6%	0.4%	-0.5%	10.3%	5.2%	1.5%	11.1%			
Consumer Discretionary	0.4%	0.6%	0.0%	-0.2%	12.4%	9.7%	14.8%	20.8%			
Consumer Staples	-0.1%	-0.1%	0.0%	0.0%	3.0%	4.3%	8.5%	9.5%			
Health Care	0.5%	0.5%	0.0%	0.0%	11.3%	8.2%	15.7%	16.0%			
Financials	-0.3%	-0.1%	-0.1%	-0.1%	3.6%	7.1%	7.1%	2.9%			
Information Technology	2.9%	2.3%	0.2%	0.4%	20.3%	13.1%	36.8%	31.5%			
Telecommunication Services	0.2%	--	0.2%	--	--	-5.7%	0.0%	1.2%			
Utilities	0.0%	--	0.0%	--	--	2.3%	0.0%	0.0%			
Real Estate	0.5%	0.2%	-0.2%	0.5%	14.1%	5.9%	8.4%	2.8%			
Cash	-0.4%	0.0%	-0.4%	0.0%	0.1%	--	4.8%	0.0%			
Portfolio	3.9%	=	3.5%	+	0.1%	+	0.3%	12.8%	8.9%	100.0%	100.0%



	Quarter		2 Quarters		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	5.1	17.8	33.9	13.2	11.6	16.2	16.1	11.0								
25th Percentile	2.1	14.8	27.9	10.7	9.7	14.7	14.3	9.4								
Median	0.7	13.1	24.6	8.8	8.5	13.6	13.3	8.1								
75th Percentile	-0.6	11.3	21.9	6.7	6.2	12.2	11.8	7.2								
95th Percentile	-2.2	7.6	15.9	1.8	1.0	8.6	9.6	5.7								
# of Portfolios	218	218	218	215	212	202	192	170								
● Kennedy	3.3 (15)	15.6 (18)	29.3 (17)	9.0 (46)	9.2 (36)	15.2 (18)	-- (--)	-- (--)								
▲ Russell 2000 Value +2.5%	0.4 (54)	15.3 (23)	31.9 (8)	11.8 (14)	10.1 (18)	15.1 (20)	-- (--)	-- (--)								
✕ Russell 2000 Value	-0.1 (67)	13.9 (37)	29.4 (17)	9.3 (43)	7.6 (64)	12.5 (70)	11.6 (82)	6.1 (93)								

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	331	1,352
Weighted Avg. Market Cap. (\$B)	2.9	2.1
Median Market Cap. (\$B)	1.5	0.7
Price To Earnings	23.8	20.8
Price To Book	2.4	1.8
Price To Sales	2.8	2.7
Return on Equity (%)	11.6	7.3
Yield (%)	1.5	1.7
Beta (holdings; domestic)	1.3	1.2

Top Holdings

PAC.PREMIER BANC.	0.8%
MIDLAND STATES ORD	0.8%
TUTOR PERINI	0.8%
UNITED RENTALS	0.8%
GOODYEAR TIRE & RUB.	0.8%
APPLIED OPTOELECTRONICS	0.8%
BRIXMOR PROPERTY GROUP	0.7%
SVB FINANCIAL GROUP	0.7%
HUNTSMAN	0.7%
COOPER STANDARD HDG.	0.7%

Best Performers

	Return %
ESPERION THERAPEUTICS (ESPR)	182.0%
TG THERAPEUTICS	150.5%
APPLIED OPTOELECTRONICS (AAOI)	139.5%
LANTRONIX (LTRX)	128.2%
PEREGRINE PHARMS. (PPHM)	112.1%
AEHR TEST SYS. (AEHR)	99.6%
CATALYST PHARMACEUTICAL PARTNERS (CPRX)	85.7%
ICHOR HOLDINGS ORD (ICHR)	83.3%
TRONOX CLASS A (TROX)	79.4%
ULTRA CLEAN HOLDINGS (UCTT)	73.9%

Worst Performers

	Return %
JONES ENERGY CLASS A (JONE)	-44.5%
BABCOCK & WILCOX ENTS. (BW)	-43.7%
STEIN MART (SMRT)	-43.7%
AMAG PHARMACEUTICALS (AMAG)	-35.2%
BANCORP (TBBK)	-35.1%
FRONTIER COMMUNICATIONS (FTR)	-34.1%
OPUS BANK (OPB)	-32.9%
ENDO INTERNATIONAL (ENDP)	-32.2%
SERVICESTOURCE INTL. (SREV)	-31.7%
ASCENA RETAIL GROUP (ASNA)	-31.2%

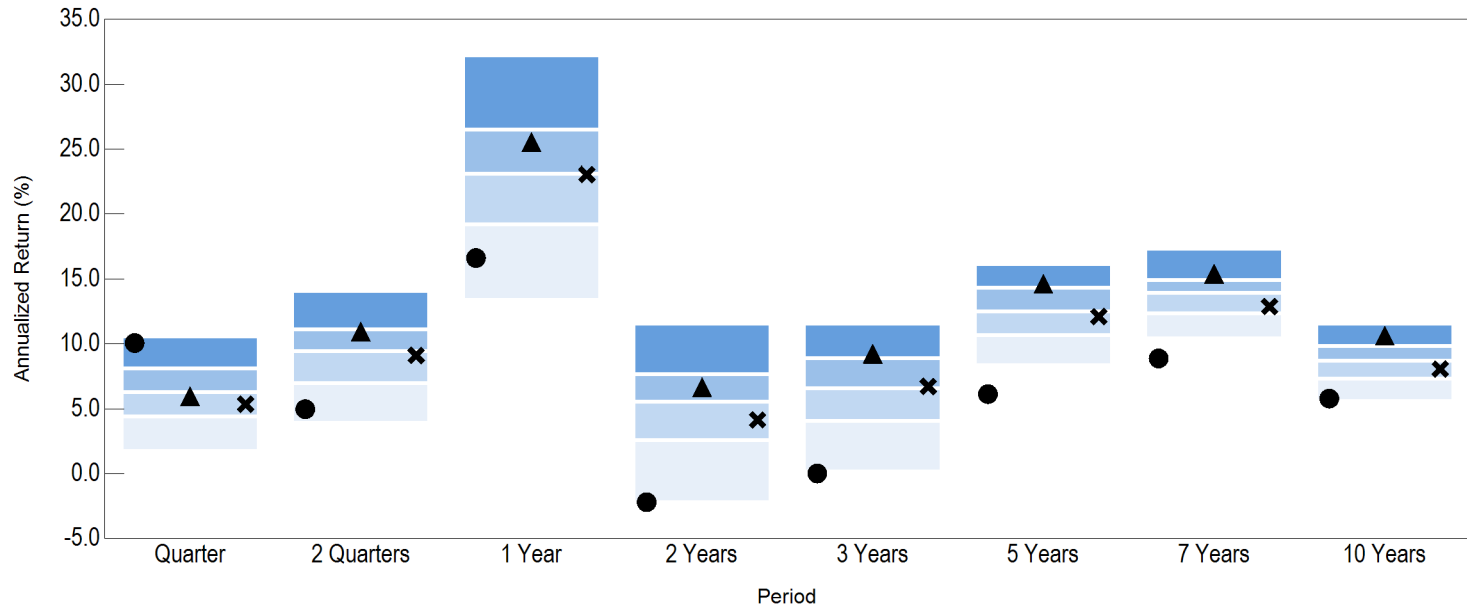
Kennedy Performance Attribution vs. Russell 2000 Value

	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.1%	0.1%	0.0%	0.0%	-8.6%	-9.7%	5.8%	6.0%			
Materials	0.3%	0.3%	0.0%	0.0%	8.2%	2.3%	5.5%	4.7%			
Industrials	0.6%	0.5%	0.0%	0.1%	4.7%	0.5%	14.4%	12.8%			
Consumer Discretionary	0.3%	0.3%	0.0%	0.1%	2.4%	-0.7%	11.4%	9.7%			
Consumer Staples	0.0%	-0.1%	0.0%	0.0%	-6.2%	-2.7%	1.7%	2.9%			
Health Care	0.2%	0.2%	0.0%	0.0%	13.1%	9.2%	4.6%	4.3%			
Financials	0.4%	0.3%	0.1%	-0.1%	-1.2%	-2.2%	27.3%	33.3%			
Information Technology	1.5%	1.3%	0.1%	0.1%	19.4%	6.5%	10.8%	9.7%			
Telecommunication Services	0.0%	-0.2%	0.0%	0.1%	-34.1%	-9.2%	0.2%	0.7%			
Utilities	-0.1%	0.0%	-0.1%	0.0%	4.3%	5.1%	5.1%	6.1%			
Real Estate	0.1%	0.1%	0.0%	0.0%	-0.3%	-1.2%	9.0%	9.8%			
Cash	0.0%	0.0%	0.0%	0.0%	0.1%	--	4.1%	0.0%			
Unclassified	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	3.5%	=	2.7%	+	0.3%	+	0.4%	3.3%	-0.1%	100.0%	100.0%

Small Cap Growth Equity Peer Universe Comparison

Period Ending: March 31, 2017

eA US Small Cap Growth Equity Gross Accounts



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	10.6	14.1	32.2	11.6	11.6	16.1	17.3	11.5
25th Percentile	8.1	11.1	26.5	7.7	8.9	14.4	14.9	9.9
Median	6.3	9.5	23.1	5.6	6.6	12.5	13.9	8.7
75th Percentile	4.4	7.0	19.2	2.6	4.1	10.7	12.4	7.3
95th Percentile	1.8	4.0	13.4	-2.2	0.2	8.4	10.4	5.6
# of Portfolios	171	171	171	166	164	156	151	129
● Next Century-SCG	10.1 (7)	5.0 (91)	16.6 (88)	-2.2 (96)	0.0 (97)	6.1 (99)	8.9 (98)	5.8 (95)
▲ Russell 2000 Growth +2.5%	6.0 (54)	10.9 (28)	25.5 (31)	6.7 (36)	9.2 (23)	14.6 (22)	15.4 (18)	10.6 (12)
✕ Russell 2000 Growth	5.3 (62)	9.1 (56)	23.0 (52)	4.1 (63)	6.7 (49)	12.1 (57)	12.9 (68)	8.1 (65)

Characteristics

	Portfolio	Russell 2000 Growth
Number of Holdings	65	1,157
Weighted Avg. Market Cap. (\$B)	2.9	2.4
Median Market Cap. (\$B)	2.0	0.9
Price To Earnings	43.4	29.9
Price To Book	7.6	4.8
Price To Sales	6.2	3.5
Return on Equity (%)	12.6	14.7
Yield (%)	0.2	0.7
Beta (holdings; domestic)	1.3	1.3

Top Holdings

MARKETAXESS HOLDINGS	3.6%
US CONCRETE	3.3%
HEALTHEQUITY	3.2%
GLAUKOS	3.0%
PROOFPOINT	3.0%
SHOIFY 'A' (NYS)	2.9%
WAGEWORKS	2.8%
ABIOMED	2.8%
COGNEX	2.6%
DYCOM INDS.	2.5%

Best Performers

	Return %
SHOIFY 'A' (NYS) (SHOP)	58.8%
WIX COM (WIX)	52.4%
EVOLENT HEALTH CL.A	50.7%
COHERENT (COHR)	49.7%
GLAUKOS (GKOS)	49.6%
COGNEX (CGNX)	32.1%
2U (TWOU)	31.5%
PENUMBRA (PEN)	30.8%
NEVRO (NVRO)	29.0%
MINDBODY CL A (MB)	28.9%

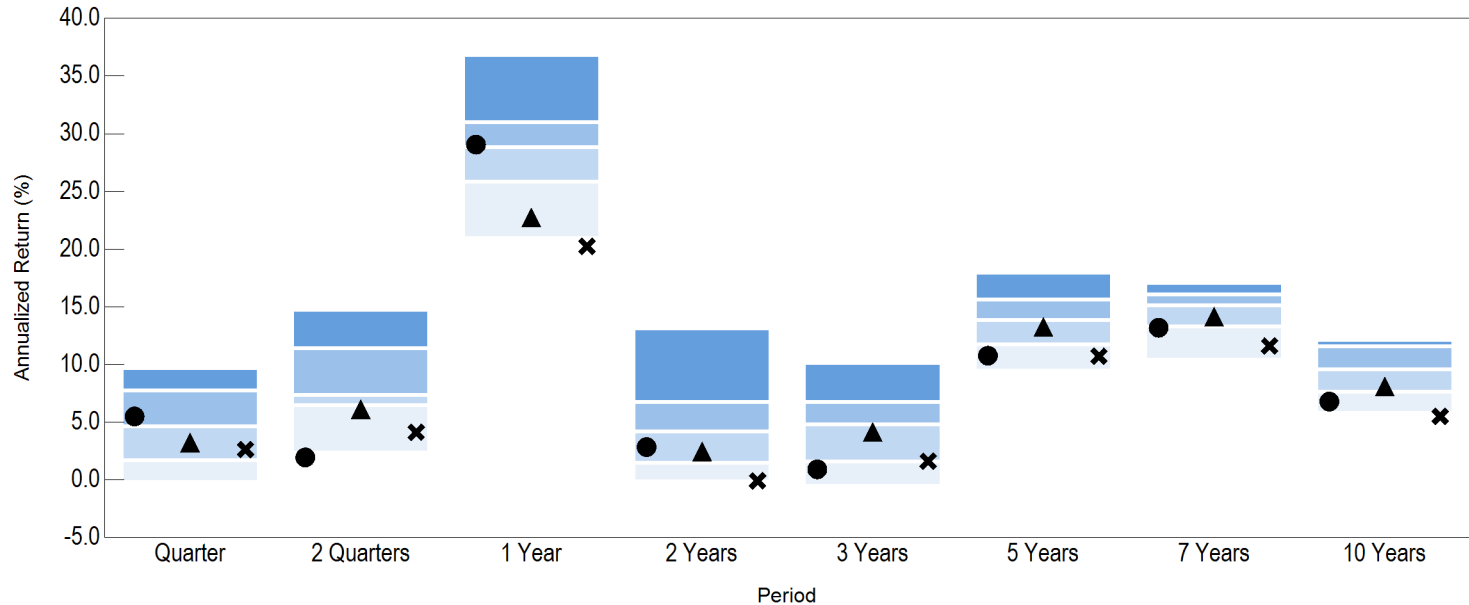
Worst Performers

	Return %
APTIO ORD (APTI)	-36.7%
ZOES KITCHEN (ZOES)	-22.9%
COUPONS.COM (QUOT)	-11.2%
FINISAR	-9.7%
ASTEC INDUSTRIES (ASTE)	-8.7%
HORIZON PHARMA (HZNP)	-8.7%
GRANITE CON. (GVA)	-8.5%
NEOGENOMICS (NEO)	-7.9%
RSP PERMIAN (RSPP)	-7.1%
KINSALE CAPITAL GROUP ORD (KNSL)	-5.6%

Next Century-SCG Performance Attribution vs. Russell 2000 Growth

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.1%	0.1%	0.0%	0.0%	-7.1%	-14.6%	1.3%	1.4%			
Materials	-0.6%	-0.5%	0.1%	-0.1%	-0.2%	9.8%	6.6%	5.2%			
Industrials	0.3%	0.3%	0.0%	0.0%	3.4%	1.7%	16.3%	16.6%			
Consumer Discretionary	0.4%	0.1%	0.3%	-0.1%	2.7%	1.9%	5.1%	15.4%			
Consumer Staples	0.1%	-0.2%	0.1%	0.1%	-5.4%	0.0%	1.1%	3.2%			
Health Care	0.5%	0.4%	0.1%	0.0%	14.0%	12.2%	22.3%	20.4%			
Financials	0.8%	0.9%	0.0%	-0.1%	17.8%	3.0%	5.0%	5.8%			
Information Technology	3.6%	2.5%	0.1%	1.0%	15.9%	5.9%	35.2%	24.7%			
Telecommunication Services	0.0%	--	0.0%	--	--	0.8%	0.0%	0.8%			
Utilities	0.0%	--	0.0%	--	--	1.8%	0.0%	0.9%			
Real Estate	0.1%	--	0.1%	--	--	2.7%	0.0%	5.5%			
Cash	-0.4%	0.0%	-0.4%	0.0%	0.1%	--	7.2%	0.0%			
Portfolio	5.0%	=	3.5%	+	0.6%	+	0.8%	10.1%	5.2%	100.0%	100.0%

eA US Micro Cap Growth Equity Gross Accounts



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	9.7	14.7	36.8	13.1	10.1	18.0	17.1	12.1
25th Percentile	7.8	11.4	31.0	6.8	6.8	15.7	16.1	11.6
Median	4.7	7.4	28.9	4.2	4.8	13.9	15.2	9.6
75th Percentile	1.8	6.5	25.9	1.5	1.6	11.8	13.3	7.7
95th Percentile	-0.1	2.4	21.0	-0.1	-0.5	9.5	10.4	5.8
# of Portfolios	17	17	17	17	16	15	14	11
● Next Century-USCG	5.5 (44)	1.9 (99)	29.1 (45)	2.8 (63)	0.9 (94)	10.8 (89)	13.2 (79)	6.8 (92)
▲ Russell MicroCap Growth +2.5%	3.2 (68)	6.1 (83)	22.7 (87)	2.5 (65)	4.1 (53)	13.3 (59)	14.1 (63)	8.1 (67)
✕ Russell Microcap Growth	2.6 (72)	4.1 (90)	20.2 (97)	-0.1 (95)	1.6 (77)	10.7 (90)	11.6 (89)	5.5 (97)

Characteristics

	Portfolio	Russell Microcap Growth
Number of Holdings	48	871
Weighted Avg. Market Cap. (\$B)	0.7	0.6
Median Market Cap. (\$B)	0.6	0.2
Price To Earnings	26.9	19.2
Price To Book	6.5	3.9
Price To Sales	3.9	3.3
Return on Equity (%)	9.8	14.1
Yield (%)	0.1	0.0
Beta (holdings; domestic)	1.5	1.4

Top Holdings

BOINGO WIRELESS	4.6%
NEFF CL.A	4.5%
MINDBODY CL A	4.1%
EVERBRIDGE ORD	4.1%
Q2 HOLDINGS	3.9%
GLAUKOS	3.8%
FIVE9	3.5%
US CONCRETE	3.3%
NEOGENOMICS	3.1%
LGI HOMES	3.1%

Best Performers

	Return %
VIEWRAY	171.9%
KORNIT DIGITAL (KRNT)	51.0%
GLAUKOS (GKOS)	49.6%
NEFF CL.A (NEFF)	37.9%
MAZOR ROBOTICS ADS 1:2 (MZOR)	35.8%
MINDBODY CL A (MB)	28.9%
ZELTIQ AESTHETICS (ZLTQ)	27.8%
IRHYTHM TECHNOLOGIES ORD (IRTC)	25.3%
Q2 HOLDINGS (QTWO)	20.8%
LGI HOMES (LGIH)	18.0%

Worst Performers

	Return %
KONA GRILL (KONA)	-49.8%
SPORTSMANS WHSE.HDG. (SPWH)	-49.1%
ENTELLUS MEDICAL (ENTL)	-27.3%
ZOES KITCHEN (ZOES)	-22.9%
EXA (EXA)	-17.3%
SPS COMMERCE (SPSC)	-16.3%
IRIDEX (IRIX)	-15.6%
AMBER ROAD (AMBR)	-15.0%
IMPINJ ORD (PI)	-14.3%
META FINANCIAL GROUP	-13.9%

Next Century-USCG Performance Attribution vs. Russell Microcap Growth

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.2%	--	0.2%	--	--	-11.4%	0.0%	1.3%			
Materials	-0.3%	-0.2%	0.0%	-0.1%	-1.5%	7.3%	3.4%	2.6%			
Industrials	1.4%	1.4%	0.0%	0.0%	7.5%	-4.3%	12.1%	12.0%			
Consumer Discretionary	-1.4%	-1.1%	-0.1%	-0.2%	-9.0%	-1.3%	17.0%	13.9%			
Consumer Staples	0.2%	0.2%	0.0%	0.0%	6.0%	-1.7%	2.6%	2.9%			
Health Care	1.1%	2.6%	-0.6%	-1.0%	13.9%	6.8%	22.9%	36.6%			
Financials	0.0%	-0.2%	0.1%	0.1%	-5.6%	-1.7%	2.9%	6.1%			
Information Technology	1.5%	0.6%	0.4%	0.5%	8.3%	5.1%	34.3%	18.2%			
Telecommunication Services	0.2%	0.0%	0.0%	0.1%	6.6%	3.8%	4.7%	1.7%			
Utilities	0.1%	--	0.1%	--	--	-4.4%	0.0%	1.3%			
Real Estate	0.0%	--	0.0%	--	--	2.6%	0.0%	3.4%			
Cash	0.0%	0.0%	0.0%	0.0%	0.1%	--	0.1%	0.0%			
Portfolio	3.0%	=	3.3%	+	0.2%	+	-0.6%	5.7%	2.7%	100.0%	100.0%

International equity

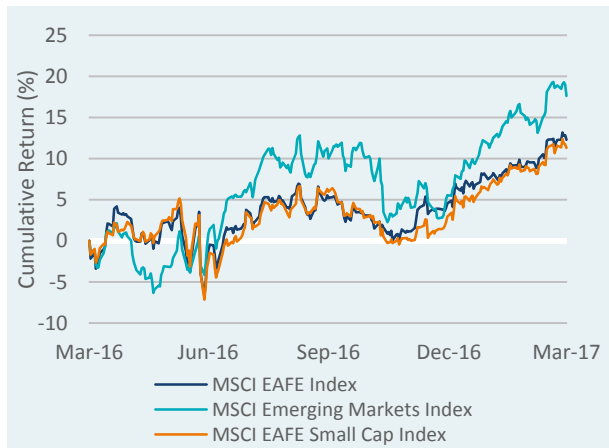
International equity markets outperformed domestic equities over the quarter. The MSCI ACWI ex U.S. returned 7.9% on an unhedged basis while the S&P 500 returned 6.1%.

International and emerging markets continue to trade at lower valuation levels than domestic markets, based on a variety of metrics. Despite our positive outlook for earnings growth in the U.S., the upside for domestic equities appears limited due to the optimism already baked into the price. International markets likely possess greater upside potential through either valuation

expansion or earnings growth surprise, simply due to current valuation levels. However, tail risks are also apparent in these markets. We believe a neutral weight is appropriate.

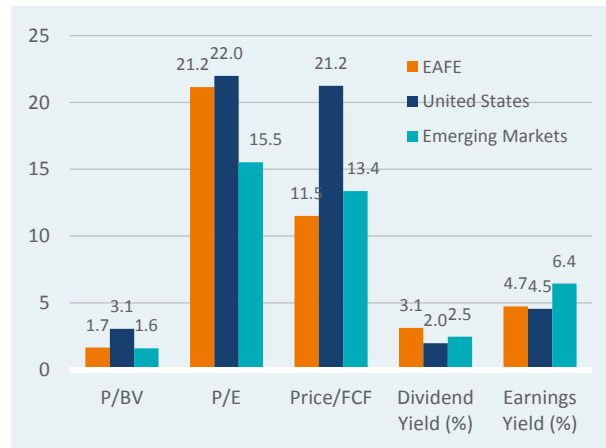
The U.S. dollar fell 3.6% in Q1 on a trade-weighted basis, and continued to contribute volatility to portfolios with unhedged currency exposure. Emerging market currencies exhibited further recovery during the quarter (MSCI EM 11.4% unhedged return vs. 7.3% hedged return) while the yen appreciated (4.3% NIKKEI 225 unhedged return vs. 0.1% hedged).

GLOBAL EQUITY PERFORMANCE



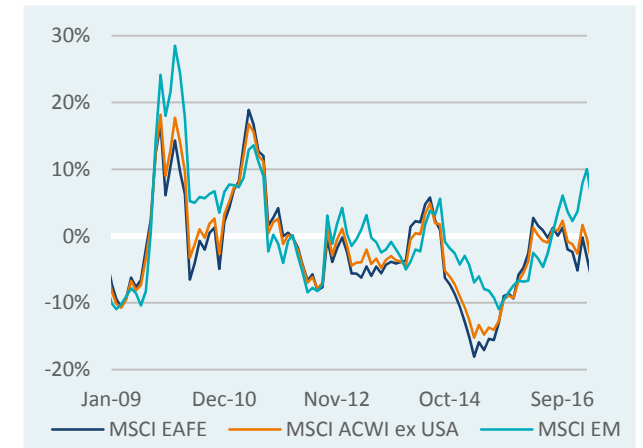
Source: Bloomberg, as of 3/31/17

VALUATIONS



Source: Bloomberg, MSCI, as of 3/31/17 - 3 month average

EFFECT OF CURRENCY (1 YEAR ROLLING)



Source: MSCI, as of 3/31/17

Emerging market equity

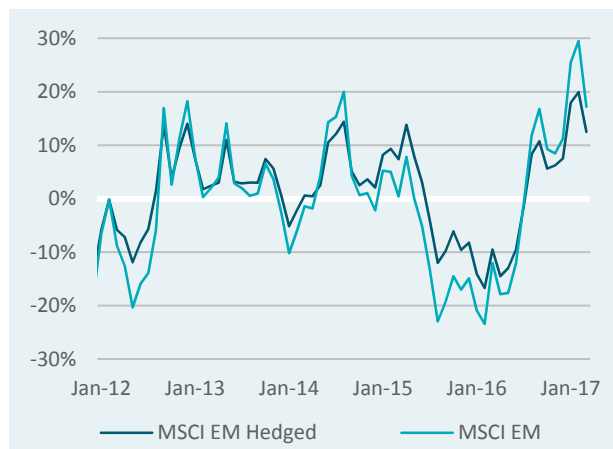
Emerging market equities extended their positive run in the first quarter, as the unhedged MSCI Emerging Markets index returned 11.4% (7.3% hedged). Performance was bolstered by strong global growth and stable commodity prices which have correlated highly with emerging market equities in the past. Steady demand from developed markets encouraged manufacturing in emerging economies as seen by increases in aggregate purchasing managers' indices (PMI).

Valuations increased moderately over the past three years but remain at attractive levels relative to EAFE and U.S. equities. Earnings growth estimates were highest in the Technology and Financial sectors, concentrated mainly in Korea and China.

Fundamentals are improving in emerging economies

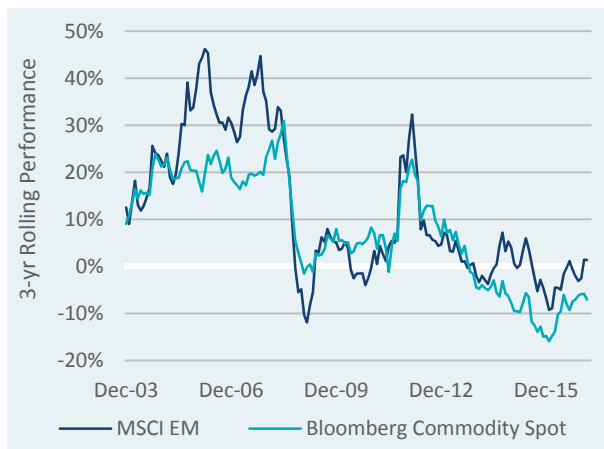
Positive long-term growth expectations are not without potential disruptions. We remain particularly watchful of U.S. trade policies and upcoming elections in France, Germany, and Turkey.

12-MONTH ROLLING PERFORMANCE



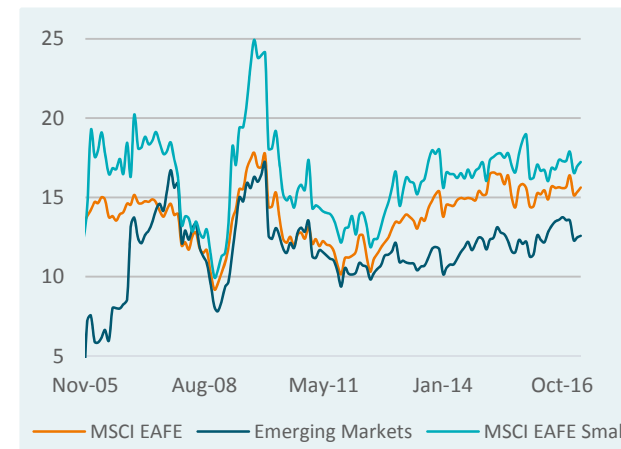
Source: MPI, as of 3/31/17

COMMODITY PRICES & EM PERFORMANCE



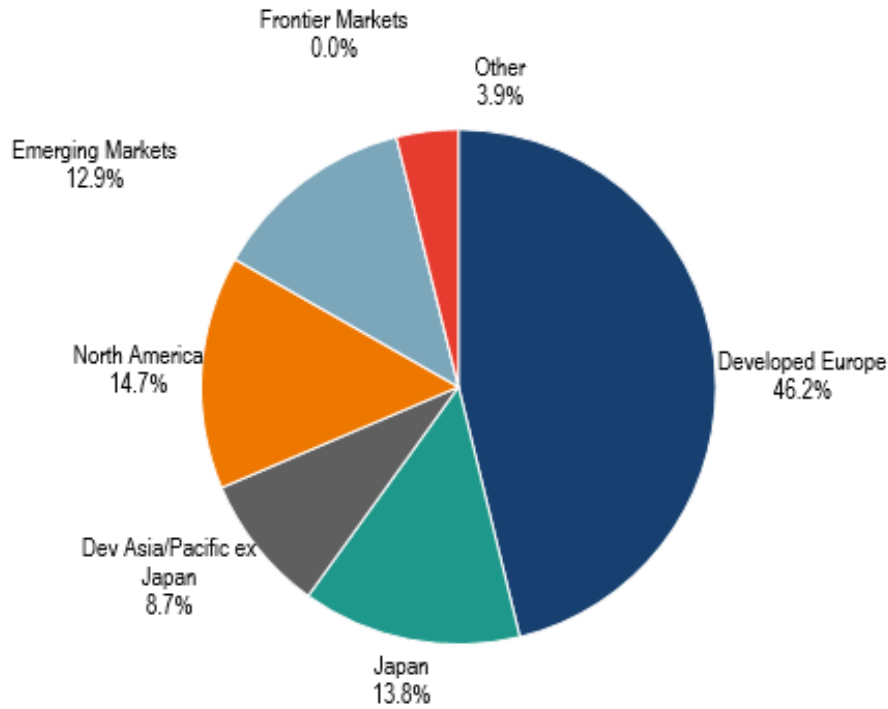
Source: Bloomberg, as of 3/31/17

FORWARD P/E RATIOS

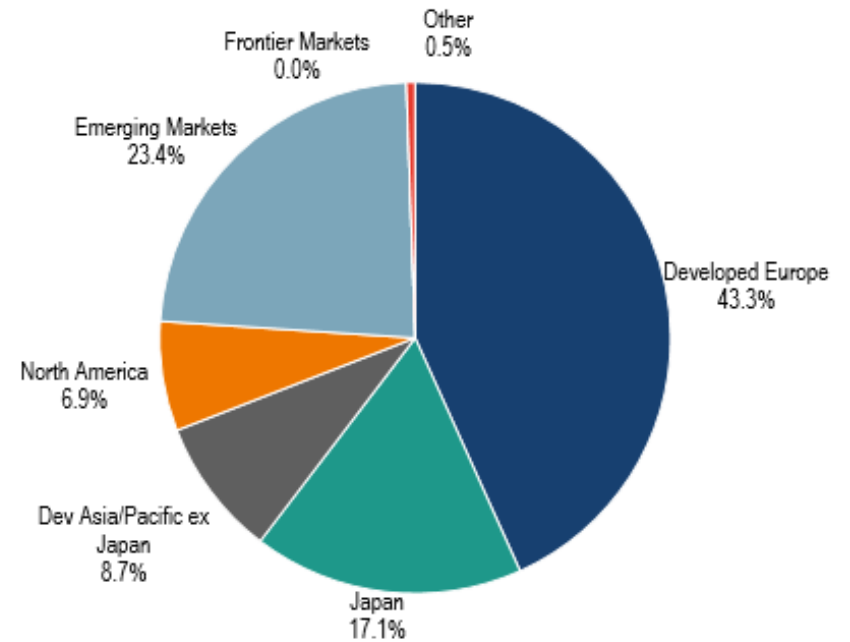


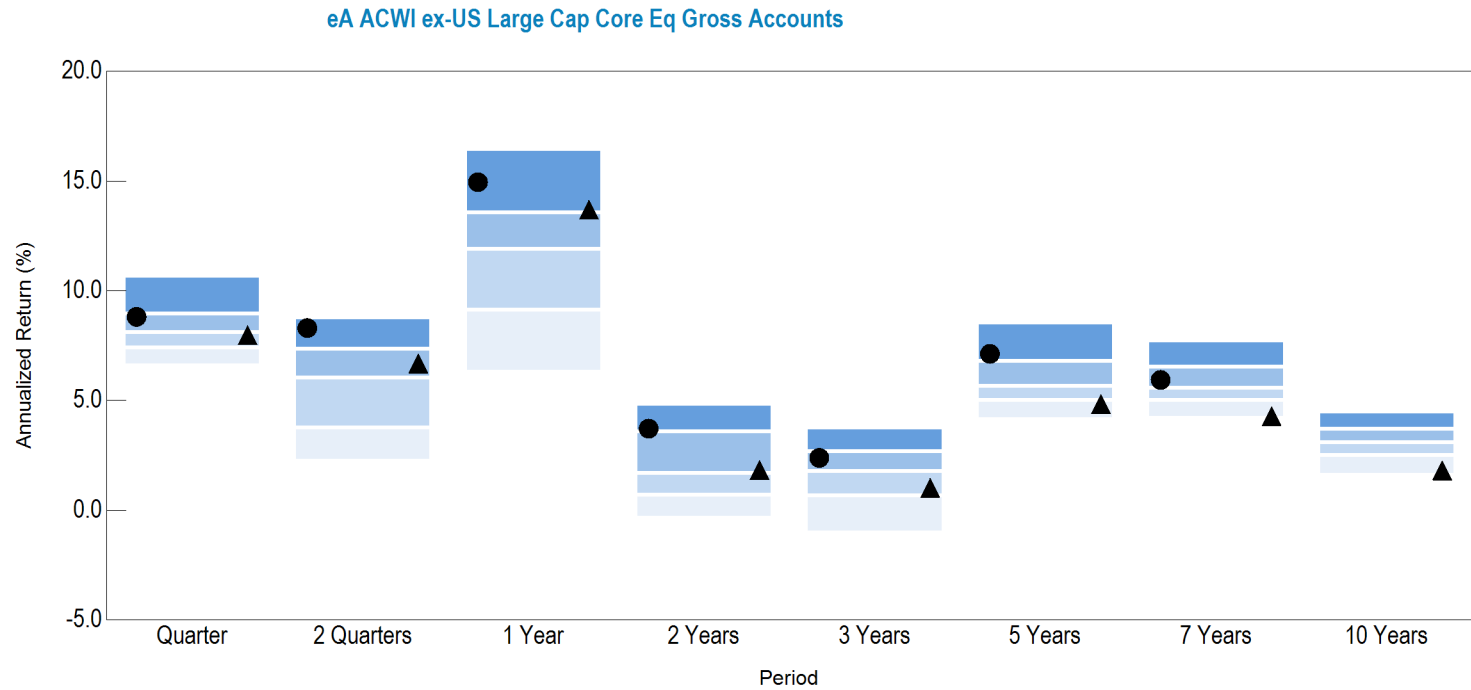
Source: Bloomberg as of 3/31/17

International Equity



MSCI ACWI ex US IMI





	Quarter		2 Quarters		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	10.7	8.8	16.4	4.8	3.8	8.5	7.7	4.5								
25th Percentile	9.0	7.4	13.6	3.6	2.7	6.8	6.5	3.7								
Median	8.1	6.1	11.9	1.7	1.8	5.7	5.6	3.1								
75th Percentile	7.4	3.8	9.2	0.7	0.7	5.0	5.0	2.5								
95th Percentile	6.6	2.3	6.3	-0.3	-1.0	4.2	4.2	1.6								
# of Portfolios	56	56	56	54	52	45	40	32								
● AQR	8.8 (33)	8.3 (10)	14.9 (17)	3.7 (21)	2.4 (31)	7.1 (22)	5.9 (33)	-- (--)								
▲ MSCI ACWI ex USA Gross	8.0 (56)	6.7 (41)	13.7 (24)	1.8 (46)	1.0 (70)	4.8 (87)	4.3 (94)	1.8 (94)								

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	638	1,853
Weighted Avg. Market Cap. (\$B)	34.1	53.1
Median Market Cap. (\$B)	11.2	7.3
Price To Earnings	18.5	20.7
Price To Book	2.4	2.5
Price To Sales	1.7	2.1
Return on Equity (%)	14.6	13.2
Yield (%)	2.9	2.9
Beta (holdings; global)	1.2	1.0

Top Holdings

ATOS	1.6%
COVESTRO (XET)	1.6%
NESTLE 'R'	1.4%
PERSIMMON	1.4%
BNP PARIBAS	1.3%
SOCIETE GENERALE	1.2%
SIEMENS	1.1%
REPSOL YPF	1.1%
NN GROUP	1.1%
PEUGEOT	1.1%

Best Performers

	Return %
YANGZIJIANG SHIPBUILDING (HOLDINGS) (T:YSHL)	43.4%
WHEELLOCK AND CO. (K:WHEL)	40.4%
UNIONE DI BANCHE ITALIAN (I:UBI)	39.7%
MIXI (J:MIXI)	33.7%
RWE (D:RWE)	33.3%
AKZO NOBEL	32.7%
WHARF HOLDINGS (K:HKWH)	32.1%
BANCO DE SABADELL	31.7%
IDEMITSU KOSAN (J:IDKO)	31.3%
ACTELION (S:ATLN)	30.2%

Worst Performers

	Return %
CENOVUS ENERGY (C:CVE)	-25.2%
VALEANT PHARMS.INTL. (C:VRX)	-24.1%
SEVEN GENERATIONS ENERGY (C:VII)	-22.0%
CRESCENT POINT ENERGY (C:CPG)	-20.4%
PANDORA (DK:PND)	-14.3%
TOYO SEIKAN GROUP HDG. (J:TOYS)	-12.9%
IMPERIAL OIL (C:IMO)	-12.5%
BT GROUP (UKIR:BT.A)	-12.2%
MAZDA MOTOR (J:KO@N)	-11.1%
MITSUBISHI HEAVY INDS. (J:MH@N)	-11.1%

AQR Performance Attribution vs. MSCI ACWI ex USA Gross

	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.1%	0.0%	0.1%	0.0%	-0.5%	-0.8%	5.8%	7.2%			
Materials	0.3%	0.2%	0.0%	0.1%	10.8%	8.4%	10.5%	8.0%			
Industrials	0.1%	0.1%	0.0%	0.0%	10.1%	9.5%	11.7%	11.7%			
Consumer Discretionary	0.2%	0.3%	0.0%	-0.1%	8.8%	6.9%	10.8%	11.5%			
Consumer Staples	-0.1%	0.0%	0.0%	-0.1%	8.4%	8.6%	6.3%	9.8%			
Health Care	0.1%	0.0%	0.0%	0.0%	8.7%	8.3%	8.7%	8.1%			
Financials	-0.6%	-0.5%	0.0%	0.0%	5.2%	7.6%	18.2%	23.4%			
Information Technology	-0.5%	-0.4%	-0.1%	-0.1%	9.7%	14.6%	7.2%	9.3%			
Telecommunication Services	-0.1%	-0.2%	0.0%	0.0%	1.8%	6.0%	3.4%	4.7%			
Utilities	0.1%	0.1%	0.0%	0.0%	10.7%	8.3%	3.3%	3.1%			
Real Estate	0.2%	0.2%	0.0%	0.0%	11.5%	6.8%	4.0%	3.3%			
Cash	-0.5%	0.0%	-0.5%	0.0%	0.1%	--	10.2%	0.0%			
Portfolio	-0.9%	=	-0.2%	+	-0.5%	+	-0.2%	7.1%	7.9%	100.0%	100.0%

AQR Performance Attribution vs. MSCI ACWI ex USA Gross

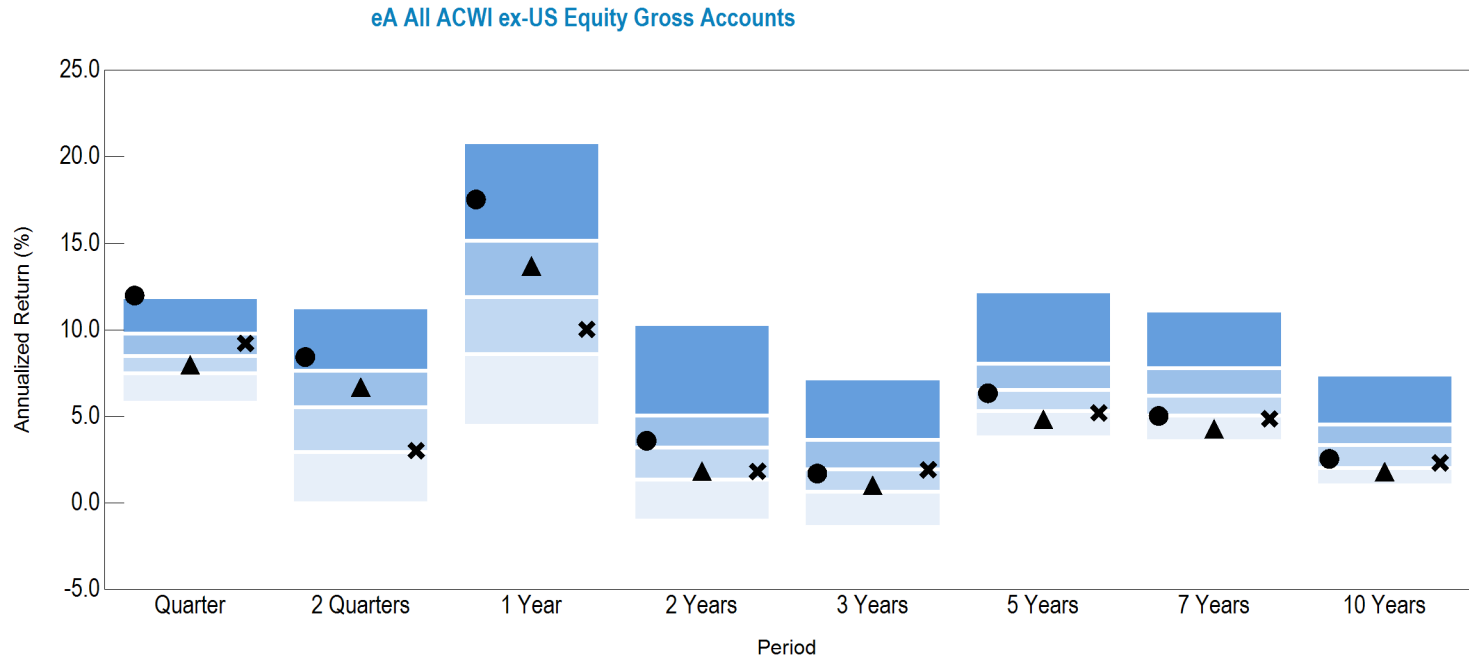
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	--	9.1%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Belgium	4.2%	5.1%	1.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Czech Republic*	--	5.6%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Denmark	15.5%	6.5%	1.8%	1.2%	0.1%	0.0%	0.0%	0.1%	0.2%
Finland	11.7%	7.7%	1.2%	0.7%	0.0%	0.0%	0.0%	0.0%	0.1%
France	8.6%	7.4%	8.6%	7.1%	0.1%	0.0%	0.0%	0.0%	0.1%
Germany	12.3%	8.5%	7.9%	6.5%	0.2%	0.0%	0.0%	0.1%	0.3%
Greece*	--	-3.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-0.1%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Ireland	--	3.9%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Italy	9.6%	6.2%	2.2%	1.5%	0.0%	0.0%	0.0%	0.0%	0.1%
Netherlands	4.5%	11.3%	3.0%	2.3%	-0.2%	0.0%	0.0%	0.0%	-0.2%
Norway	--	1.5%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Poland*	--	17.7%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Portugal	--	8.2%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Russia*	--	-4.8%	0.0%	1.0%	--	0.2%	-0.1%	--	0.1%
Spain	11.9%	14.7%	3.0%	2.2%	-0.1%	0.1%	0.0%	0.0%	0.0%
Sweden	13.2%	10.0%	2.2%	2.0%	0.1%	0.0%	0.0%	0.0%	0.1%
Switzerland	8.7%	8.8%	7.5%	6.1%	0.0%	0.0%	0.0%	0.0%	0.0%
United Kingdom	4.9%	5.1%	14.3%	12.8%	0.0%	0.0%	0.0%	0.0%	0.0%

AQR Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	10.2%	11.0%	5.6%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%
China*	--	13.0%	0.0%	6.0%	--	-0.5%	0.0%	--	-0.5%
Hong Kong	16.5%	13.2%	3.1%	2.3%	0.1%	0.1%	0.0%	0.0%	0.2%
India*	--	17.1%	0.0%	1.9%	--	-0.1%	-0.1%	--	-0.2%
Indonesia*	--	7.1%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Japan	5.0%	4.5%	19.8%	17.1%	0.1%	-0.2%	0.1%	0.0%	0.1%
Korea*	--	16.7%	0.0%	3.3%	--	-0.1%	-0.3%	--	-0.4%
Malaysia*	--	8.3%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
New Zealand	6.1%	2.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Philippines*	--	6.3%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Singapore	25.0%	13.5%	0.6%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%
Taiwan*	--	11.8%	0.0%	2.7%	--	0.0%	-0.2%	--	-0.2%
Thailand*	--	8.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Americas									
Brazil*	--	10.3%	0.0%	1.7%	--	0.0%	0.0%	--	-0.1%
Canada	3.7%	2.7%	7.6%	7.1%	0.1%	0.0%	0.0%	0.0%	0.1%
Chile*	--	16.1%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Colombia*	--	5.7%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	--	16.1%	0.0%	0.8%	--	0.0%	-0.1%	--	-0.1%
Peru*	--	5.5%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%

AQR Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	1.0%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Israel	--	5.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Qatar*	--	1.3%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
South Africa*	--	4.6%	0.0%	1.6%	--	0.0%	0.0%	--	0.0%
Turkey*	--	10.9%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
United Arab Emirates*	--	1.6%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Totals									
Americas	3.7%	5.5%	7.6%	10.1%	-0.1%	0.0%	-0.1%	0.0%	-0.1%
Europe	8.5%	7.3%	53.1%	45.6%	0.6%	0.0%	0.1%	0.1%	0.8%
Asia/Pacific	7.6%	9.4%	29.2%	41.5%	-0.8%	0.0%	-0.4%	0.2%	-1.0%
Other	--	4.8%	0.0%	2.8%	--	0.0%	0.0%	--	0.0%
Cash	0.1%	--	10.2%	0.0%	0.0%	-0.5%	0.0%	0.0%	-0.5%
Total	7.1%	7.9%	100.0%	100.0%	-0.3%	-0.4%	-0.5%	0.4%	-0.9%
Totals									
Developed	7.8%	6.9%	89.8%	77.3%	0.7%	-0.1%	0.3%	0.1%	1.0%
Emerging*	--	11.4%	0.0%	22.7%	--	-0.6%	-0.8%	--	-1.4%
Cash	0.1%	--	10.2%	0.0%	0.0%	-0.5%	0.0%	0.0%	-0.5%



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	11.9	11.3	20.8	10.3	7.2	12.2	11.1	7.4
25th Percentile	9.8	7.7	15.2	5.1	3.7	8.1	7.8	4.6
Median	8.5	5.6	11.9	3.2	2.0	6.6	6.2	3.4
75th Percentile	7.5	3.0	8.6	1.4	0.7	5.3	5.1	2.0
95th Percentile	5.8	0.0	4.5	-1.0	-1.4	3.8	3.6	1.0
# of Portfolios	281	281	281	270	255	226	197	150
● Capital Group	12.0 (4)	8.4 (18)	17.5 (11)	3.6 (44)	1.7 (58)	6.3 (55)	5.0 (78)	2.6 (68)
▲ MSCI ACWI ex USA Gross	8.0 (66)	6.7 (34)	13.7 (36)	1.8 (65)	1.0 (70)	4.8 (87)	4.3 (91)	1.8 (83)
✕ MSCI ACWI ex USA Growth Gross	9.2 (36)	3.0 (74)	10.0 (66)	1.8 (65)	1.9 (52)	5.2 (77)	4.9 (80)	2.3 (71)

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	240	1,853
Weighted Avg. Market Cap. (\$B)	43.9	53.1
Median Market Cap. (\$B)	14.8	7.3
Price To Earnings	24.5	20.7
Price To Book	4.3	2.5
Price To Sales	3.4	2.1
Return on Equity (%)	17.1	13.2
Yield (%)	2.2	2.9
Beta (holdings; global)	1.2	1.0

Top Holdings

VALE PREFERRED ADR 1:1	3.1%
ASML HOLDING	2.7%
NASPERS	2.3%
TAIWAN SEMICON.MNFG.	2.0%
AIRBUS GROUP	1.7%
AIA GROUP	1.7%
LVMH	1.6%
SUNNY OPTICAL TECH.(GP.)	1.6%
KEYENCE	1.6%
SMC	1.4%

Best Performers

	Return %
PHAROL SGPS (P:PHR)	84.2%
SUNNY OPTICAL TECH.(GP.) (K:SOPT)	66.9%
HUTCHISON CHINA MEDITECH (UKIR:HCM)	45.0%
MERCADOLIBRE (MELI)	35.5%
INDUSIND BANK (IN:IBK)	34.4%
CYRELA BRAZIL REALTY ON (BR:3CY)	32.2%
VALE PREFERRED ADR 1:1 (VALE.P)	30.3%
CAIXABANK (E:CABK)	30.1%
LONGFOR PROPERTIES (K:LNGF)	29.6%
RECRUIT HOLDINGS (J:RHCL)	28.1%

Worst Performers

	Return %
TULLOW OIL (UKIR:TLW)	-24.3%
KAKAKU.COM (J:KAKA)	-17.3%
OJSC OC ROSNEFT (OTC) GDR REG S (OJSCY)	-12.9%
FAST RETAILING (J:RETA)	-12.2%
MATAHARI DEPARTMENT SOE. (ID:MDS)	-11.9%
TOYOTA MOTOR (J:TYMO)	-8.1%
OCADO GROUP (UKIR:OCDO)	-7.7%
AMOREPACIFIC (KO:AMN)	-5.8%
FUJITEC (J:FUTC)	-5.5%
ROYAL DUTCH SHELL B (UKIR:RDSB)	-4.5%

Capital Group Performance Attribution vs. MSCI ACWI ex USA Gross

	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.4%	0.2%	0.5%	-0.3%	1.4%	-0.8%	1.6%	7.2%			
Materials	-0.3%	-0.2%	0.0%	-0.1%	3.3%	8.4%	2.2%	8.0%			
Industrials	0.1%	0.1%	0.0%	0.0%	10.5%	9.5%	10.8%	11.7%			
Consumer Discretionary	-0.1%	0.0%	-0.1%	0.0%	5.8%	6.9%	20.8%	11.5%			
Consumer Staples	-0.2%	-0.1%	0.0%	-0.1%	6.6%	8.6%	9.5%	9.8%			
Health Care	0.0%	-0.1%	0.1%	0.0%	6.5%	8.3%	19.5%	8.1%			
Financials	1.6%	2.4%	0.0%	-0.8%	16.3%	7.6%	19.0%	23.4%			
Information Technology	-0.6%	-0.1%	-0.3%	-0.2%	12.8%	14.6%	3.0%	9.3%			
Telecommunication Services	0.9%	0.4%	-0.1%	0.7%	13.4%	6.0%	11.6%	4.7%			
Utilities	0.0%	0.1%	0.0%	-0.1%	11.2%	8.3%	0.8%	3.1%			
Real Estate	-0.1%	-0.1%	0.0%	0.0%	4.3%	6.8%	0.9%	3.3%			
Cash	0.0%	0.0%	0.0%	0.0%	0.1%	--	0.4%	0.0%			
Portfolio	1.6%	=	2.5%	+	-0.1%	+	-0.8%	9.5%	7.9%	100.0%	100.0%

Capital Group Performance Attribution vs. MSCI ACWI ex USA Gross

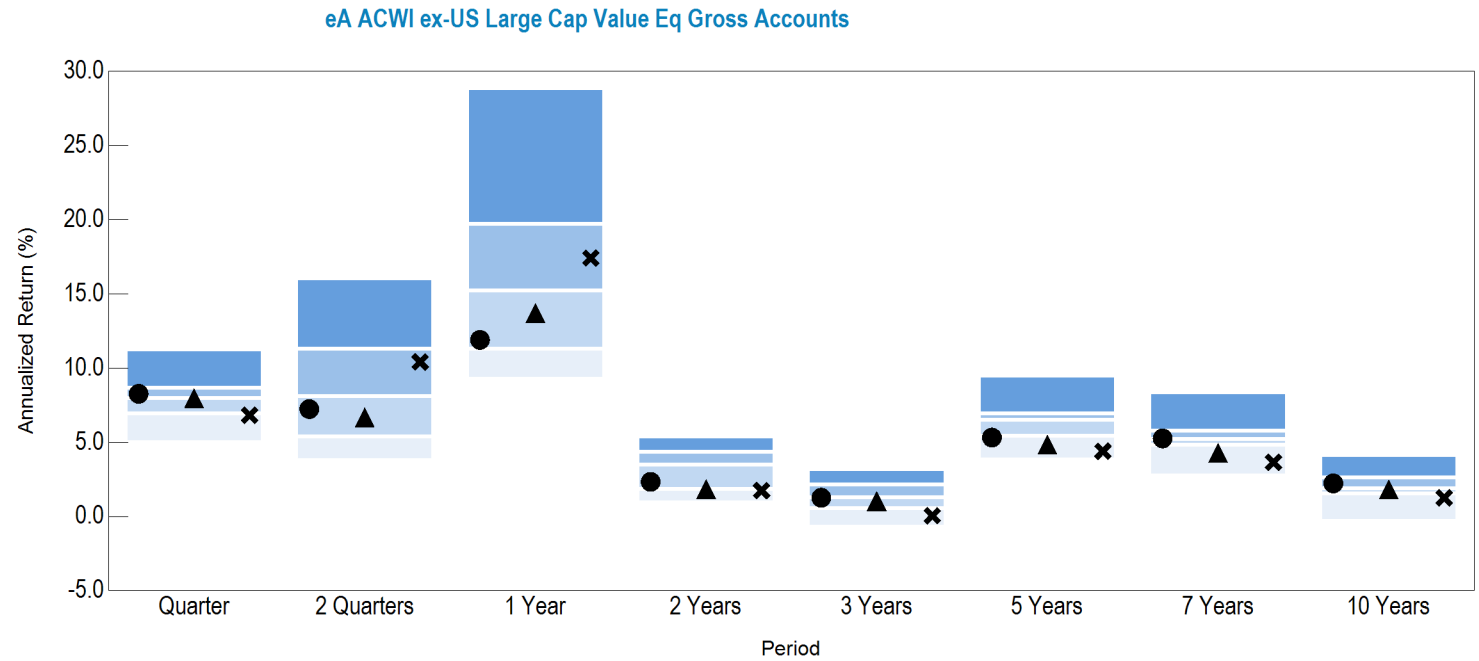
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	3.8%	9.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Belgium	--	5.1%	0.0%	0.8%	--	0.0%	0.0%	--	0.0%
Czech Republic*	--	5.6%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Denmark	-1.6%	6.5%	8.7%	1.2%	-0.1%	0.0%	0.1%	-0.6%	-0.6%
Finland	--	7.7%	0.0%	0.7%	--	0.0%	0.0%	--	0.0%
France	11.1%	7.4%	4.8%	7.1%	0.3%	0.0%	0.0%	-0.1%	0.1%
Germany	4.5%	8.5%	14.2%	6.5%	-0.3%	0.1%	0.1%	-0.3%	-0.3%
Greece*	--	-3.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-0.1%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Ireland	--	3.9%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Italy	--	6.2%	0.0%	1.5%	--	0.0%	0.0%	--	0.0%
Netherlands	15.3%	11.3%	1.9%	2.3%	0.1%	0.0%	0.0%	0.0%	0.0%
Norway	22.0%	1.5%	0.1%	0.5%	0.1%	0.0%	0.0%	-0.1%	0.0%
Poland*	--	17.7%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Portugal	36.5%	8.2%	1.3%	0.1%	0.0%	0.0%	0.0%	0.3%	0.4%
Russia*	21.1%	-4.8%	2.3%	1.0%	0.3%	-0.2%	-0.1%	0.4%	0.5%
Spain	29.9%	14.7%	0.0%	2.2%	0.3%	-0.2%	0.0%	-0.3%	-0.2%
Sweden	15.8%	10.0%	0.0%	2.0%	0.2%	-0.1%	0.0%	-0.2%	-0.1%
Switzerland	12.8%	8.8%	26.7%	6.1%	0.2%	0.4%	0.4%	0.8%	1.8%
United Kingdom	3.1%	5.1%	9.0%	12.8%	-0.3%	0.1%	0.0%	0.1%	-0.2%

Capital Group Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	16.2%	11.0%	1.4%	5.2%	0.3%	0.0%	-0.2%	-0.2%	-0.1%
China*	--	13.0%	0.0%	6.0%	--	-0.5%	0.0%	--	-0.5%
Hong Kong	--	13.2%	0.0%	2.3%	--	-0.2%	0.0%	--	-0.2%
India*	--	17.1%	0.0%	1.9%	--	-0.1%	-0.1%	--	-0.2%
Indonesia*	9.8%	7.1%	0.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan	2.9%	4.5%	8.7%	17.1%	-0.2%	0.5%	-0.4%	0.1%	-0.1%
Korea*	16.6%	16.7%	0.4%	3.3%	0.0%	-0.1%	-0.2%	0.0%	-0.3%
Malaysia*	--	8.3%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
New Zealand	--	2.3%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Philippines*	--	6.3%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Singapore	11.0%	13.5%	4.2%	0.9%	0.0%	0.1%	0.1%	-0.1%	0.2%
Taiwan*	--	11.8%	0.0%	2.7%	--	0.0%	-0.2%	--	-0.2%
Thailand*	--	8.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Americas									
Brazil*	18.2%	10.3%	12.3%	1.7%	0.2%	0.2%	0.0%	1.1%	1.5%
Canada	3.3%	2.7%	1.8%	7.1%	0.0%	0.2%	0.0%	0.0%	0.1%
Chile*	--	16.1%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Colombia*	--	5.7%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	--	16.1%	0.0%	0.8%	--	0.0%	-0.1%	--	-0.1%
Peru*	--	5.5%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
United States	13.7%	6.1%	1.5%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%

Capital Group Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	1.0%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Israel	--	5.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Qatar*	--	1.3%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
South Africa*	12.6%	4.6%	0.0%	1.6%	0.2%	0.0%	0.0%	-0.2%	0.0%
Turkey*	--	10.9%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
United Arab Emirates*	--	1.6%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Totals									
Americas	16.0%	5.5%	15.6%	10.1%	1.2%	-0.1%	-0.1%	0.6%	1.6%
Europe	8.6%	7.3%	69.3%	45.6%	0.6%	0.1%	0.3%	0.3%	1.4%
Asia/Pacific	6.9%	9.4%	14.8%	41.5%	-1.2%	0.0%	-1.0%	0.8%	-1.4%
Other	12.6%	4.8%	0.0%	2.8%	0.2%	0.0%	0.0%	-0.2%	0.0%
Cash	0.1%	--	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	9.5%	7.9%	100.0%	100.0%	0.9%	0.1%	-0.9%	1.5%	1.6%
Totals									
Developed	7.9%	6.9%	84.6%	77.3%	1.1%	-0.1%	-0.1%	0.1%	1.0%
Emerging*	18.5%	11.4%	15.0%	22.7%	2.3%	-0.2%	-0.8%	-0.8%	0.6%
Cash	0.1%	--	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	11.2	16.0	28.8	5.4	3.2	9.5	8.4	4.1
25th Percentile	8.7	11.3	19.8	4.4	2.2	7.0	5.8	2.6
Median	8.0	8.1	15.2	3.5	1.3	6.6	5.3	1.9
75th Percentile	7.0	5.4	11.3	1.9	0.6	5.4	4.8	1.6
95th Percentile	5.0	3.8	9.3	1.0	-0.7	3.9	2.8	-0.3
# of Portfolios	23	23	23	22	21	19	17	14
● Mondrian	8.3 (40)	7.2 (59)	11.9 (70)	2.3 (70)	1.3 (51)	5.3 (85)	5.3 (51)	2.2 (43)
▲ MSCI ACWI ex USA Gross	8.0 (51)	6.7 (66)	13.7 (58)	1.8 (77)	1.0 (59)	4.8 (91)	4.3 (84)	1.8 (55)
✕ MSCI ACWI ex USA Value Gross	6.8 (80)	10.4 (38)	17.4 (37)	1.7 (86)	0.0 (90)	4.4 (94)	3.6 (87)	1.3 (86)

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	87	1,853
Weighted Avg. Market Cap. (\$B)	55.6	53.1
Median Market Cap. (\$B)	20.6	7.3
Price To Earnings	24.0	20.7
Price To Book	2.1	2.5
Price To Sales	1.6	2.1
Return on Equity (%)	10.2	13.2
Yield (%)	3.8	2.9
Beta (holdings; global)	1.1	1.0

Top Holdings

SANOFI	3.5%
SYNGENTA	3.2%
IBERDROLA	3.2%
KIRIN HOLDINGS	3.0%
ABB LTD N	3.0%
GLAXOSMITHKLINE	3.0%
HONDA MOTOR	2.9%
TAKEDA PHARMACEUTICAL	2.9%
TESCO	2.8%
ENI	2.8%

Best Performers

	Return %
ASTM (I:AT)	37.7%
G4S (UKIR:GFS)	31.0%
UNILEVER (UK) (UKIR:ULVR)	22.1%
TELEFONICA (E:TEF)	20.5%
SANTEN PHARM. (J:XY@N)	18.9%
KYUSHU RAILWAY ORD (J:KRWC)	18.4%
ARIAKE JAPAN (J:ARIK)	17.9%
ASCENDAS REAL ESTATE IT. (T:ASCE)	17.6%
FIELMANN (D:FIE)	17.4%
TOKYO ELECTRON (J:RG@N)	16.9%

Worst Performers

	Return %
PEARSON (UKIR:PSON)	-15.6%
NEXT	-12.3%
TESCO (UKIR:TSCO)	-9.2%
BP (UKIR:BP.)	-7.5%
KINGFISHER (UKIR:KGF)	-5.8%
ROYAL DUTCH SHELL B (UKIR:RDSB)	-4.5%
ASTELLAS PHARMA (J:YP@N)	-4.4%
NIFCO (J:NFCO)	-4.1%
ROYAL DUTCH SHELL A(LON) (UKIR:RDSA)	-3.7%
PROSEGUR CIA.SECURIDAD (E:PSG)	-3.4%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Gross

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.3%	-0.1%	-0.2%	0.0%	-2.2%	-0.8%	10.1%	7.2%			
Materials	-0.1%	0.4%	0.0%	-0.4%	11.5%	8.4%	3.0%	8.0%			
Industrials	0.5%	0.6%	0.0%	-0.1%	14.1%	9.5%	11.2%	11.7%			
Consumer Discretionary	-0.9%	-0.9%	0.0%	0.0%	-1.5%	6.9%	10.4%	11.5%			
Consumer Staples	-0.2%	-0.2%	0.0%	0.0%	6.4%	8.6%	12.0%	9.8%			
Health Care	0.4%	0.2%	0.0%	0.2%	11.0%	8.3%	11.8%	8.1%			
Financials	-0.2%	-0.1%	0.0%	-0.1%	7.6%	7.6%	15.6%	23.4%			
Information Technology	-0.3%	-0.1%	-0.1%	-0.1%	12.9%	14.6%	7.3%	9.3%			
Telecommunication Services	0.3%	0.2%	-0.1%	0.2%	9.0%	6.0%	9.1%	4.7%			
Utilities	0.2%	0.1%	0.0%	0.1%	9.8%	8.3%	6.7%	3.1%			
Real Estate	0.1%	0.1%	0.0%	-0.1%	10.4%	6.8%	2.2%	3.3%			
Cash	0.0%	0.0%	0.0%	0.0%	0.1%	--	0.5%	0.0%			
Portfolio	-0.5%	=	0.2%	+	-0.3%	+	-0.3%	7.5%	7.9%	100.0%	100.0%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Gross

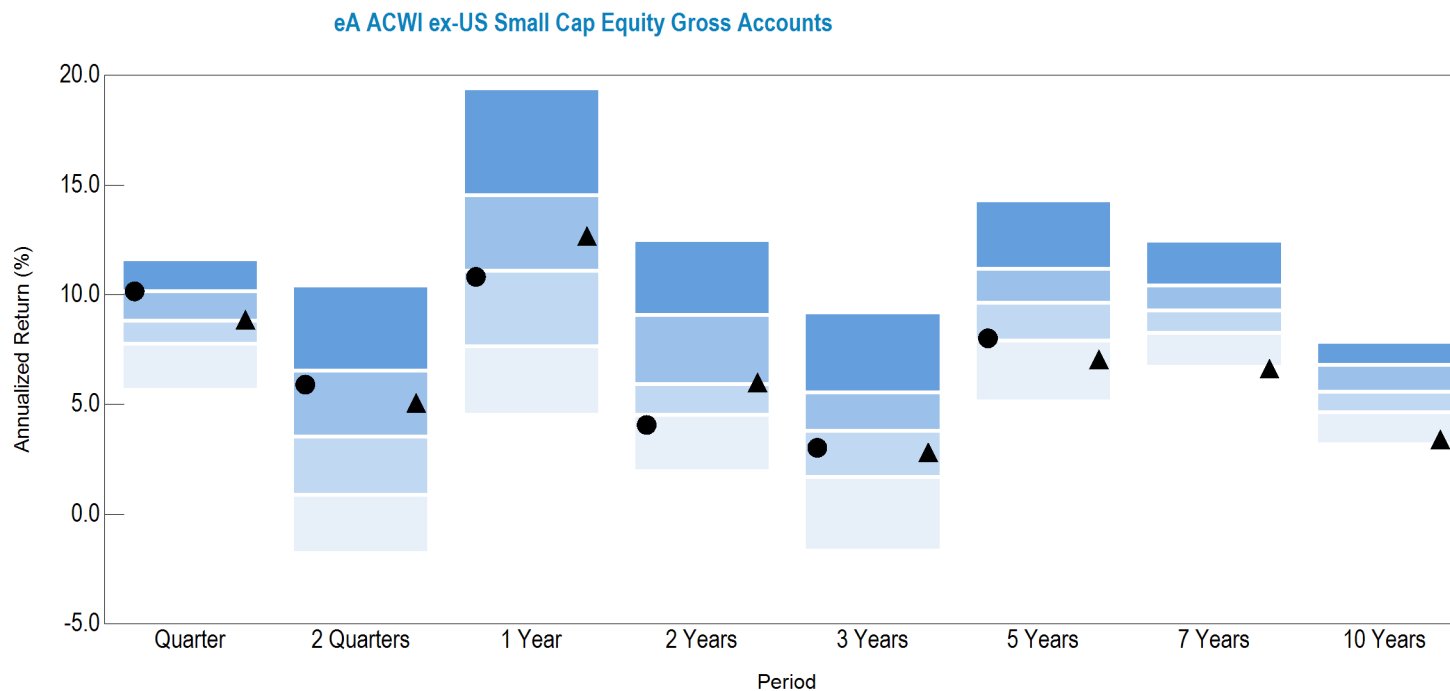
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	--	9.1%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Belgium	--	5.1%	0.0%	0.8%	--	0.0%	0.0%	--	0.0%
Czech Republic*	--	5.6%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Denmark	15.4%	6.5%	1.0%	1.2%	0.1%	0.0%	0.0%	0.0%	0.1%
Finland	--	7.7%	0.0%	0.7%	--	0.0%	0.0%	--	0.0%
France	9.4%	7.4%	7.3%	7.1%	0.1%	0.0%	0.0%	0.0%	0.2%
Germany	7.4%	8.5%	10.3%	6.5%	-0.1%	0.1%	0.1%	0.0%	0.0%
Greece*	--	-3.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-0.1%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Ireland	--	3.9%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Italy	4.4%	6.2%	4.3%	1.5%	0.0%	0.0%	0.0%	-0.1%	-0.1%
Netherlands	-0.1%	11.3%	4.5%	2.3%	-0.3%	0.1%	0.0%	-0.2%	-0.4%
Norway	--	1.5%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Poland*	--	17.7%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Portugal	--	8.2%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Russia*	--	-4.8%	0.0%	1.0%	--	0.2%	-0.1%	--	0.1%
Spain	15.4%	14.7%	5.3%	2.2%	0.0%	0.2%	0.0%	0.0%	0.3%
Sweden	8.5%	10.0%	4.3%	2.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Switzerland	7.9%	8.8%	12.6%	6.1%	-0.1%	0.1%	0.1%	-0.1%	0.1%
United Kingdom	3.2%	5.1%	23.8%	12.8%	-0.2%	-0.2%	0.1%	-0.2%	-0.5%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	12.2%	11.0%	1.3%	5.2%	0.1%	0.0%	-0.2%	0.0%	-0.2%
China*	--	13.0%	0.0%	6.0%	--	-0.5%	0.0%	--	-0.5%
Hong Kong	--	13.2%	0.0%	2.3%	--	-0.2%	0.0%	--	-0.2%
India*	--	17.1%	0.0%	1.9%	--	-0.1%	-0.1%	--	-0.2%
Indonesia*	--	7.1%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Japan	9.9%	4.5%	17.6%	17.1%	0.9%	0.0%	0.1%	0.0%	1.0%
Korea*	--	16.7%	0.0%	3.3%	--	-0.1%	-0.3%	--	-0.4%
Malaysia*	--	8.3%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
New Zealand	--	2.3%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Philippines*	--	6.3%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Singapore	13.0%	13.5%	5.7%	0.9%	0.0%	0.2%	0.2%	0.0%	0.4%
Taiwan*	--	11.8%	0.0%	2.7%	--	0.0%	-0.2%	--	-0.2%
Thailand*	--	8.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Americas									
Brazil*	--	10.3%	0.0%	1.7%	--	0.0%	0.0%	--	-0.1%
Canada	5.3%	2.7%	1.3%	7.1%	0.2%	0.2%	0.0%	-0.1%	0.2%
Chile*	--	16.1%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Colombia*	--	5.7%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	--	16.1%	0.0%	0.8%	--	0.0%	-0.1%	--	-0.1%
Peru*	--	5.5%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	1.0%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Israel	--	5.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Qatar*	--	1.3%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
South Africa*	--	4.6%	0.0%	1.6%	--	0.0%	0.0%	--	0.0%
Turkey*	--	10.9%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
United Arab Emirates*	--	1.6%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Totals									
Americas	5.3%	5.5%	1.3%	10.1%	0.1%	0.1%	-0.2%	-0.1%	0.0%
Europe	6.4%	7.3%	73.5%	45.6%	-0.4%	0.1%	0.3%	-0.2%	-0.1%
Asia/Pacific	10.7%	9.4%	24.6%	41.5%	0.3%	0.0%	-0.5%	-0.1%	-0.3%
Other	--	4.8%	0.0%	2.8%	--	0.0%	0.0%	--	0.0%
Cash	0.1%	--	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	7.5%	7.9%	100.0%	100.0%	0.1%	0.3%	-0.4%	-0.4%	-0.5%
Totals									
Developed	7.5%	6.9%	99.5%	77.3%	0.5%	-0.2%	0.4%	0.2%	0.9%
Emerging*	--	11.4%	0.0%	22.7%	--	-0.6%	-0.8%	--	-1.4%
Cash	0.1%	--	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	11.6	10.4	19.4	12.5	9.2	14.3	12.5	7.9
25th Percentile	10.2	6.6	14.5	9.1	5.6	11.2	10.4	6.8
Median	8.8	3.6	11.1	5.9	3.8	9.6	9.3	5.6
75th Percentile	7.8	0.9	7.7	4.5	1.7	7.9	8.3	4.7
95th Percentile	5.7	-1.8	4.6	2.0	-1.6	5.2	6.7	3.2
# of Portfolios	54	54	54	51	45	36	29	24
● Templeton	10.2 (27)	5.9 (36)	10.8 (52)	4.1 (84)	3.0 (65)	8.0 (75)	-- (--)	-- (--)
▲ MSCI ACWI ex US Small Cap Gross	8.9 (48)	5.1 (42)	12.7 (35)	6.0 (50)	2.8 (68)	7.1 (82)	6.6 (97)	3.4 (93)

Characteristics

	Portfolio	MSCI ACWI ex US Small Cap Gross
Number of Holdings	109	4,273
Weighted Avg. Market Cap. (\$B)	2.2	2.1
Median Market Cap. (\$B)	1.6	0.8
Price To Earnings	22.9	20.2
Price To Book	2.5	2.4
Price To Sales	1.8	2.1
Return on Equity (%)	14.0	12.9
Yield (%)	2.2	2.3
Beta (holdings; global)	1.0	1.0

Top Holdings

INTERPUMP GROUP	2.1%
DEWAN HOUSING FINANCE	2.1%
BUCHER INDUSTRIES	2.0%
TSUMURA	2.0%
BADGER DAYLIGHTING	2.0%
MEITEC	1.9%
KOBAYASHI PHARMACEUTICAL	1.8%
THULE GROUP	1.8%
GERRESHEIMER	1.8%
JENOPTIK	1.8%

Best Performers

	Return %
CHINA ZHENG TONG AUTO SVS. (K:CZTA)	106.1%
DEWAN HOUSING FINANCE (IN:DWH)	57.5%
JENOPTIK	45.2%
TECHNOGYM ORD SHS (I:TGYM)	43.7%
HYUNDAI MIPO DOCKYARD	42.4%
INTERPUMP GROUP	42.2%
ANRITSU (J:AU@N)	41.1%
GRENDENE ON (BR:GRN)	32.2%
LAIRD	31.4%
AAC TECHNOLOGIES HDG. (K:AACA)	28.8%

Worst Performers

	Return %
ASICS	-19.8%
TETHYS OIL	-18.0%
DOREL INDS.'B' SBVTG. (C:DII.B)	-16.7%
CAPCOM	-16.4%
MULLEN GROUP (C:MTL)	-13.9%
AMER SPORTS (M:AMEAS)	-12.7%
GRAN TIERRA ENERGY (TSE) (C:GTE)	-12.3%
VTECH HOLDINGS (K:VTEC)	-10.6%
BENETEAU (F:CHBE)	-8.4%
LPN DEVELOPMENT FB (Q:LPF)	-7.9%

Templeton Performance Attribution vs. MSCI ACWI ex US Small Cap Gross

	Total Effects	Attribution Effects				Returns		Sector Weights			
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	-3.8%	-4.0%	4.4%	4.2%			
Materials	-0.8%	-1.3%	-0.1%	0.6%	-2.3%	10.3%	4.2%	11.0%			
Industrials	0.7%	0.8%	0.0%	-0.1%	13.6%	9.7%	18.6%	19.7%			
Consumer Discretionary	-0.1%	0.0%	0.0%	0.0%	7.7%	8.6%	20.5%	15.9%			
Consumer Staples	0.2%	0.2%	0.0%	0.0%	10.2%	7.2%	7.5%	6.6%			
Health Care	0.0%	0.1%	0.0%	-0.1%	9.7%	9.4%	5.9%	7.1%			
Financials	1.2%	1.1%	0.0%	0.1%	19.2%	7.0%	9.9%	10.3%			
Information Technology	0.2%	0.3%	0.0%	-0.1%	16.9%	15.4%	11.0%	11.2%			
Telecommunication Services	-0.1%	--	0.0%	--	--	12.0%	0.0%	1.0%			
Utilities	-0.1%	--	-0.1%	--	--	10.8%	0.0%	2.6%			
Real Estate	-0.2%	-0.6%	0.2%	0.2%	-0.5%	6.1%	3.2%	10.2%			
Cash	-0.4%	0.0%	-0.4%	0.0%	0.1%	--	6.7%	0.0%			
Unclassified	0.2%	0.0%	0.0%	0.2%	8.3%	8.9%	8.0%	0.0%			
Portfolio	0.8%	=	0.7%	+	-0.5%	+	0.6%	9.6%	8.9%	100.0%	100.0%

Templeton Performance Attribution vs. MSCI ACWI ex US Small Cap Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	--	10.3%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Belgium	16.0%	9.7%	1.9%	1.4%	0.1%	0.0%	0.0%	0.0%	0.1%
Czech Republic*	--	9.5%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Denmark	--	13.0%	0.0%	1.0%	--	-0.1%	0.0%	--	-0.1%
Finland	-8.6%	0.4%	3.4%	1.2%	-0.1%	-0.2%	0.0%	-0.2%	-0.4%
France	-8.4%	10.4%	0.5%	3.0%	-0.5%	-0.1%	0.0%	0.5%	-0.2%
Germany	17.5%	12.0%	5.5%	4.4%	0.2%	0.0%	0.0%	0.1%	0.4%
Greece*	--	11.9%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-2.2%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Ireland	--	12.1%	0.0%	0.7%	--	0.0%	0.0%	--	0.0%
Italy	32.8%	16.0%	2.7%	2.6%	0.4%	0.0%	0.0%	0.0%	0.5%
Luxembourg	0.2%	8.9%	1.1%	0.0%	0.0%	0.0%	0.0%	-0.1%	-0.1%
Netherlands	11.0%	9.1%	5.0%	1.5%	0.0%	0.1%	0.1%	0.1%	0.2%
Norway	4.1%	-1.9%	1.0%	1.2%	0.1%	0.0%	0.0%	0.0%	0.1%
Poland*	23.2%	23.4%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%
Portugal	--	1.6%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Russia*	--	5.3%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Spain	-4.2%	8.3%	2.0%	1.8%	-0.2%	0.0%	0.0%	0.0%	-0.2%
Sweden	8.2%	4.2%	4.0%	3.6%	0.1%	0.0%	0.0%	0.0%	0.2%
Switzerland	22.8%	13.3%	3.1%	3.2%	0.3%	0.0%	0.0%	0.0%	0.3%
United Kingdom	13.2%	6.3%	6.0%	12.4%	0.8%	0.1%	-0.1%	-0.4%	0.4%

Templeton Performance Attribution vs. MSCI ACWI ex US Small Cap Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	--	8.0%	0.0%	4.8%	--	0.2%	-0.3%	--	-0.1%
China*	-5.6%	10.0%	0.6%	4.9%	-0.8%	-0.2%	0.0%	0.7%	-0.3%
Hong Kong	9.6%	4.6%	8.8%	1.7%	0.1%	-0.1%	0.0%	0.4%	0.3%
India*	40.6%	26.8%	1.6%	2.5%	0.3%	-0.1%	0.0%	-0.1%	0.0%
Indonesia*	--	0.8%	0.0%	0.6%	--	0.0%	0.0%	--	0.0%
Japan	6.3%	6.9%	18.4%	22.5%	-0.1%	0.2%	-0.2%	0.0%	-0.2%
Korea*	22.0%	10.6%	3.5%	3.7%	0.4%	0.0%	0.0%	0.0%	0.4%
Malaysia*	--	12.4%	0.0%	0.7%	--	0.0%	0.0%	--	0.0%
New Zealand	--	8.1%	0.0%	0.8%	--	0.0%	0.0%	--	0.0%
Philippines*	1.7%	6.3%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Singapore	--	12.2%	0.0%	1.2%	--	0.0%	0.0%	--	-0.1%
Taiwan*	13.1%	17.7%	2.6%	3.7%	-0.2%	-0.1%	-0.1%	0.0%	-0.3%
Thailand*	9.9%	3.8%	0.9%	0.9%	0.1%	0.0%	0.0%	0.0%	0.1%
Americas									
Brazil*	23.1%	20.7%	1.9%	0.9%	0.0%	0.1%	0.0%	0.0%	0.2%
Canada	3.4%	4.5%	6.8%	7.8%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Chile*	--	17.3%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Colombia*	--	-1.3%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	--	11.7%	0.0%	0.6%	--	0.0%	-0.1%	--	0.0%
United States	7.2%	6.1%	11.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%

Templeton Performance Attribution vs. MSCI ACWI ex US Small Cap Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	8.9%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Israel	--	17.7%	0.0%	1.0%	--	-0.1%	0.0%	--	-0.1%
Qatar*	--	2.8%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
South Africa*	--	5.7%	0.0%	1.3%	--	0.0%	0.0%	--	0.0%
Turkey*	--	5.4%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
United Arab Emirates*	--	-9.2%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Totals									
Americas	7.4%	6.8%	19.8%	9.6%	0.2%	-0.1%	0.0%	0.2%	0.2%
Europe	11.7%	8.6%	36.7%	39.4%	1.2%	0.0%	0.0%	-0.1%	1.1%
Asia/Pacific	10.4%	9.5%	36.7%	48.0%	0.6%	0.1%	-0.6%	-0.1%	-0.1%
Other	--	8.7%	0.0%	2.9%	--	0.0%	-0.1%	--	-0.1%
Cash	0.1%	--	6.8%	0.0%	0.0%	-0.4%	0.0%	0.0%	-0.4%
Total	9.6%	8.9%	100.0%	100.0%	2.0%	-0.4%	-0.8%	-0.1%	0.7%
Totals									
Developed	8.8%	7.7%	81.2%	78.4%	1.6%	0.0%	-0.6%	0.1%	1.0%
Emerging*	19.8%	13.1%	12.1%	21.6%	1.1%	-0.3%	-0.2%	-0.5%	0.1%
Cash	0.1%	--	6.8%	0.0%	0.0%	-0.4%	0.0%	0.0%	-0.4%

Interest rate environment

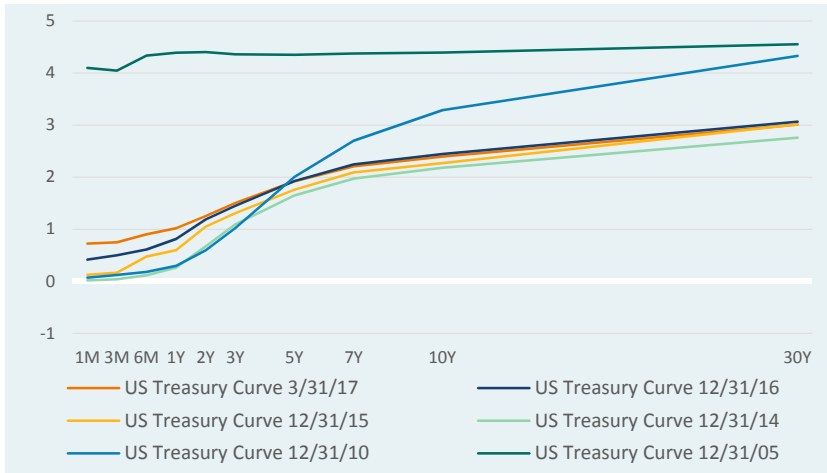
- U.S. Treasuries have an attractive yield relative to other developed sovereign bonds, but remain historically expensive.
- Despite broad agreement that the U.S. has entered an environment of rising interest rates, the broad yield curve rose very little over the past year. However, the short end of the curve has increased in line with Federal Reserve rate rises. Inflation has historically had a significant impact on the yield curve, which indicates investors should keep an eye on inflation trends.
- In March, the Federal Reserve announced a change to the federal funds target rate from 0.50-0.75% to 0.75-1.00%. The move resulted in the U.S. Treasury curve flattening moderately as short-term interest rates increased and long-term rates remained materially unchanged. The Fed has indicated two additional rate hikes are expected to occur this year.
- Developed sovereign yields are expected to rise only modestly over the next year, with very little movement expected in longer dated bonds. Central banks of most developed economies are nearing the end of the monetary easing cycle or have begun to pull back, as in the case of the U.S. Federal Reserve.
- Many emerging market governments continue with monetary easing, suggesting these economies may be in an earlier stage of the economic cycle.

Area	Short Term (3M)	10 Year
United States	0.75%	2.39%
Germany	(0.92%)	0.33%
France	(0.57%)	0.97%
Spain	(0.39%)	1.65%
Italy	(0.34%)	2.31%
Greece	2.39%	6.90%
U.K.	0.13%	1.14%
Japan	(0.20%)	0.07%
Australia	1.59%	2.70%
China	2.93%	3.28%
Brazil	10.91%	10.06%
Russia	9.50%	7.87%

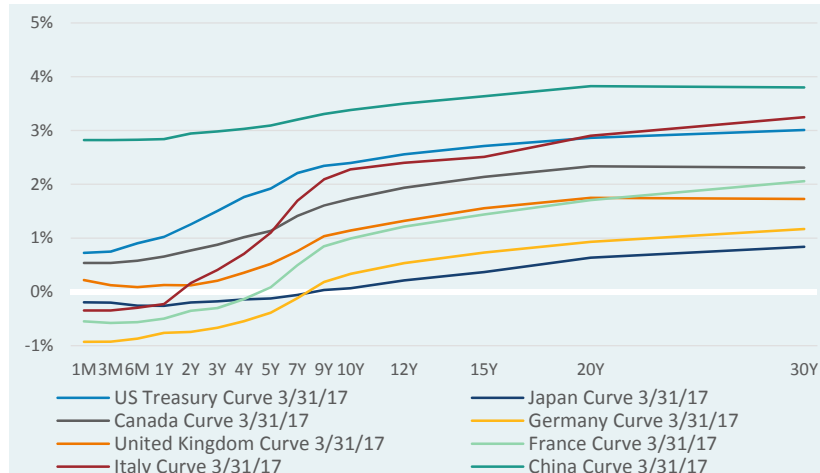
Source: Bloomberg, as of 3/31/17

Yield environment

U.S. YIELD CURVE

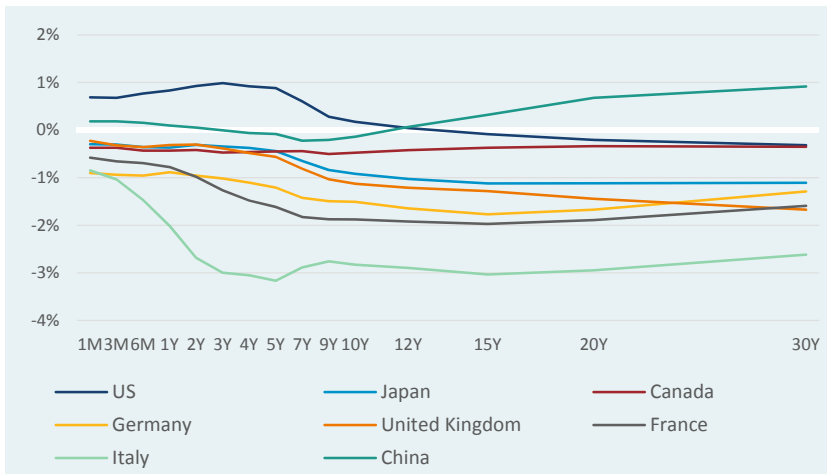


GLOBAL GOVERNMENT YIELD CURVES

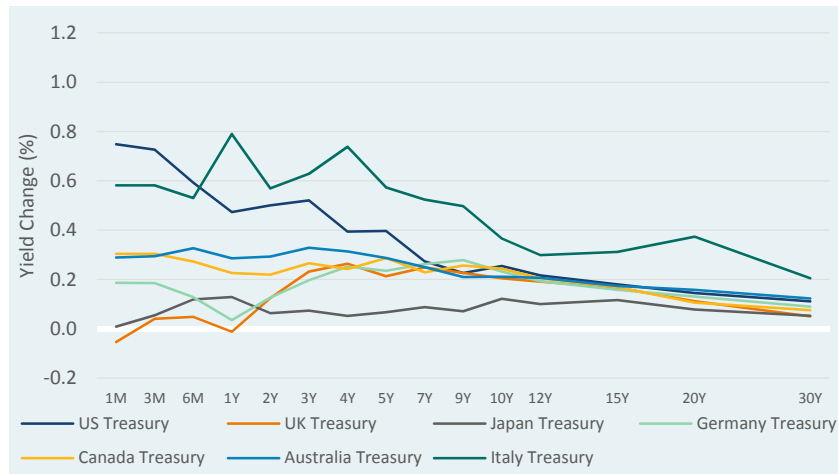


Global investors continue to prefer U.S. Treasuries due to higher relative yields

YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/17

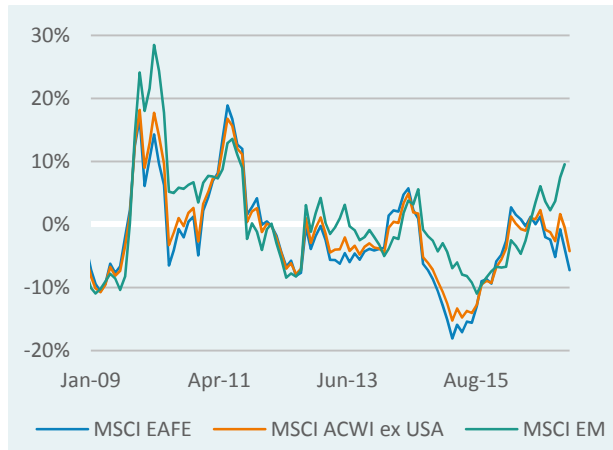
Currency

In the first quarter, the U.S. dollar reversed part of its gains following the presidential election in November. On a trade weighted basis, the dollar was down 3.6% against a basket of major currencies. Currency movement has been an important influence in unhedged foreign asset exposure. Over the past year, U.S. dollar strength has eroded positive equity returns in developed markets, while dollar weakness against emerging markets has added to returns.

Emerging market currencies rallied in the first quarter following a sharp decline to end last year. The JPM Emerging Market Currency Index was up 2.5%.

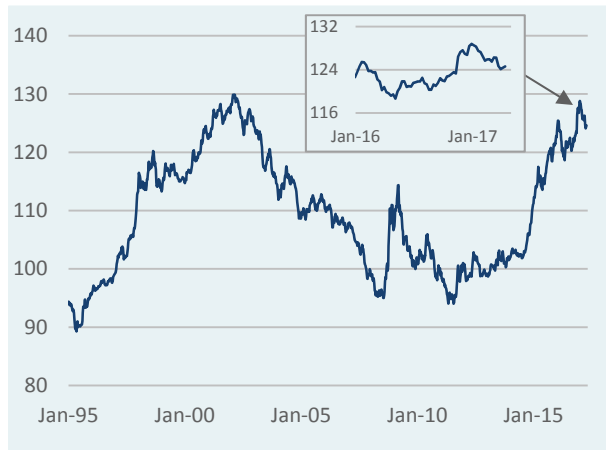
While long-term movements in the U.S. are often driven by broad mean reversion to fair value based on purchasing power parity, shorter term moves are still likely to be heavily influenced by developments in foreign trade policy, where much uncertainty remains.

EFFECT OF CURRENCY (1YR ROLLING)



Source: MPI, as of 3/31/17

LONG-TERM TRADE WEIGHTED DOLLAR

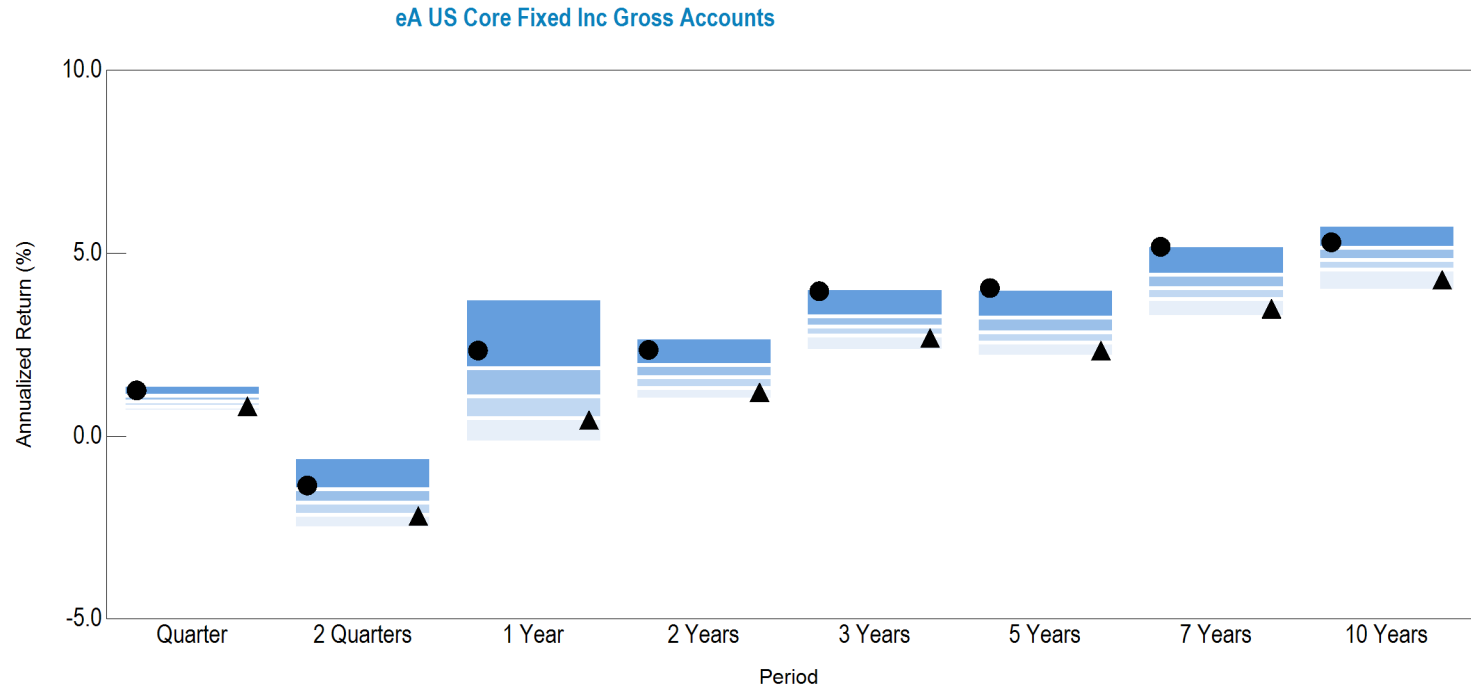


Source: FRED, as of 4/7/17

JPM EM CURRENCY INDEX

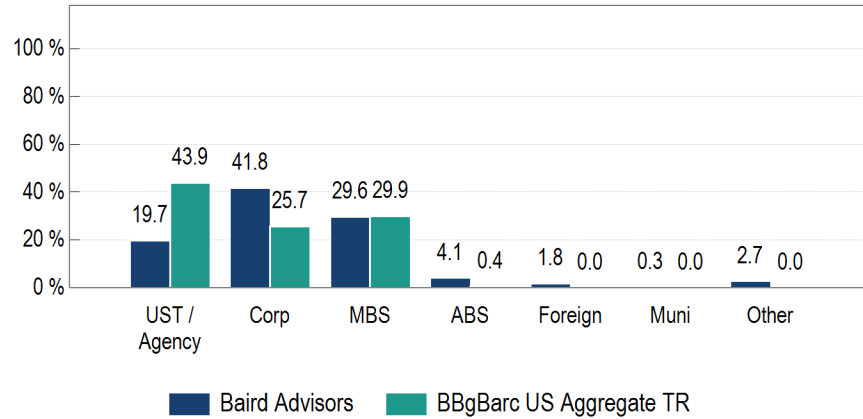


Source: Bloomberg, as of 3/31/17

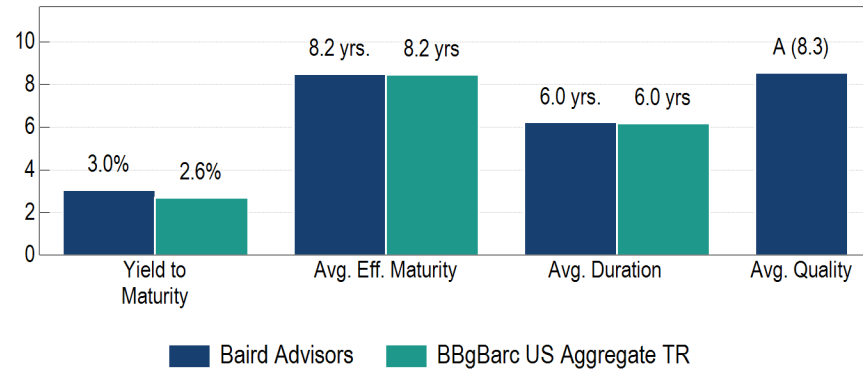


	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	1.4	-0.6	3.8	2.7	4.0	4.0	5.2	5.8
25th Percentile	1.1	-1.4	1.9	1.9	3.3	3.2	4.4	5.1
Median	0.9	-1.8	1.1	1.6	3.0	2.8	4.1	4.8
75th Percentile	0.8	-2.1	0.5	1.3	2.8	2.6	3.7	4.6
95th Percentile	0.7	-2.5	-0.2	1.0	2.3	2.2	3.3	4.0
# of Portfolios	218	218	218	217	216	213	205	192
● Baird Advisors	1.3 (11)	-1.3 (20)	2.3 (13)	2.4 (8)	4.0 (6)	4.0 (5)	5.2 (6)	5.3 (19)
▲ BBgBarc US Aggregate TR	0.8 (77)	-2.2 (79)	0.4 (78)	1.2 (86)	2.7 (81)	2.3 (90)	3.5 (87)	4.3 (90)

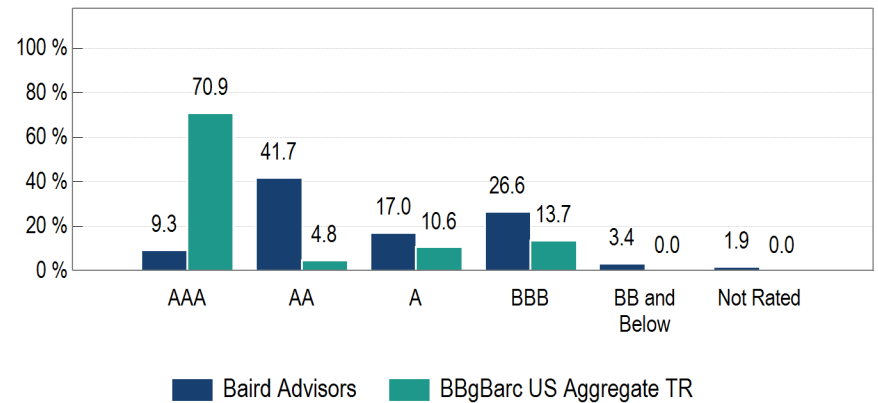
Sectors
Baird Advisors



Characteristics
Baird Advisors



Quality Ratings
Baird Advisors

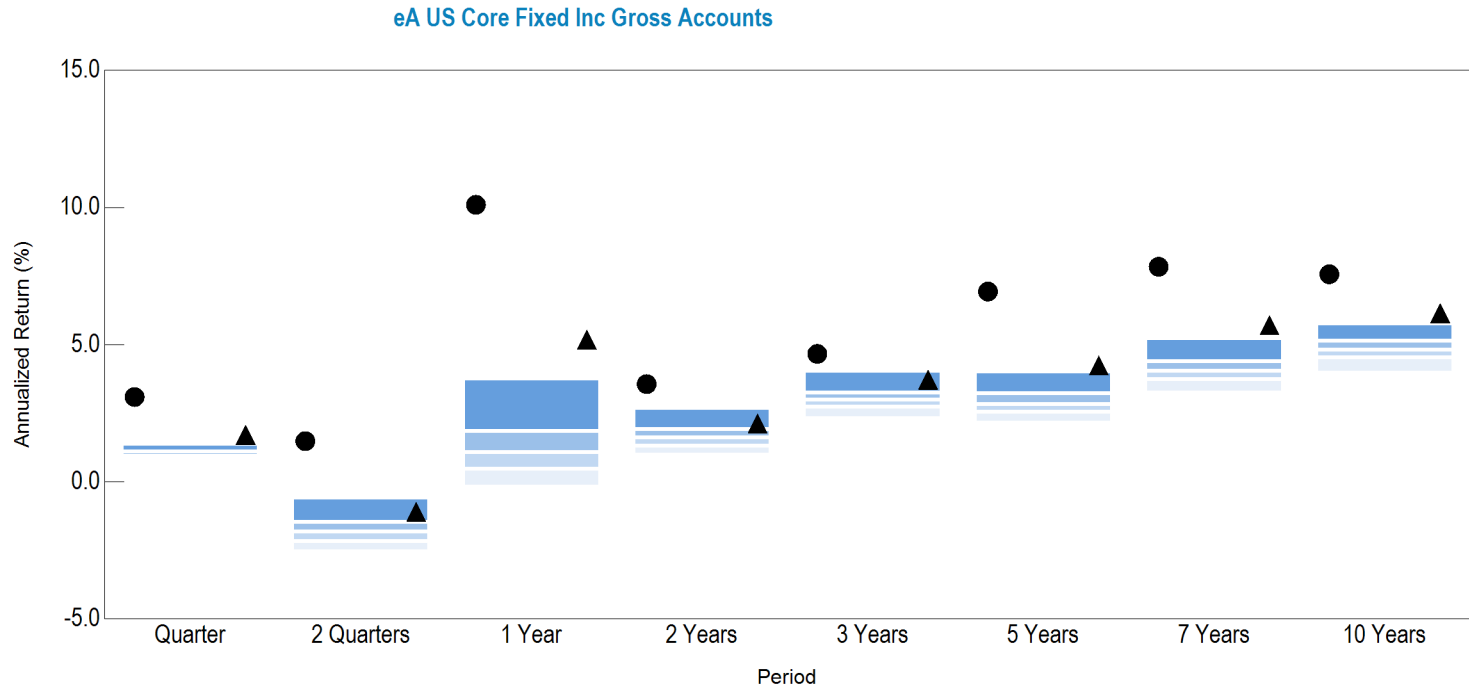


PERFORMANCE BY QUALITY

	<u>NUMBER OF ISSUES</u>	<u>FINAL MARKET VALUE (\$000)</u>	<u>FINAL MARKET VALUE %</u>	<u>QUARTERLY RETURN %</u>	<u>QUARTERLY CONTRIBUTION TO TOTAL RETURN %</u>
Cash & Equiv	1	10,026	1.8	0.17	0.00
Govt & Agency	73	237,833	42.7	0.88	0.38
AAA	17	49,572	8.9	0.69	0.06
AA	19	24,508	4.4	2.00	0.09
A	45	87,447	15.7	1.11	0.17
BAA	52	115,853	20.8	1.91	0.40
Below BAA	25	31,748	5.7	2.59	0.15
Other	0	-	0.0	0.00	0.00
Total Account	232	\$556,987	100.0	1.25	1.25

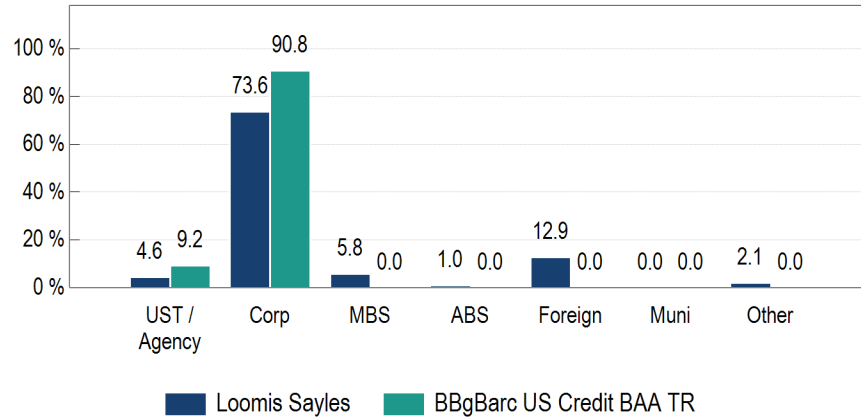
PERFORMANCE BY DURATION

	<u>NUMBER OF ISSUES</u>	<u>FINAL MARKET VALUE (\$000)</u>	<u>FINAL MARKET VALUE %</u>	<u>QUARTERLY RETURN %</u>	<u>QUARTERLY CONTRIBUTION TO TOTAL RETURN %</u>
Under 1 Year	25	38,432	6.9	2.25	0.16
1 - 3 Years	57	102,486	18.4	0.75	0.14
3 - 6 Years	95	231,706	41.6	0.71	0.30
Over 6 Years	55	184,363	33.1	1.99	0.66
Total Account	232	\$556,987	100.0	1.25	1.25

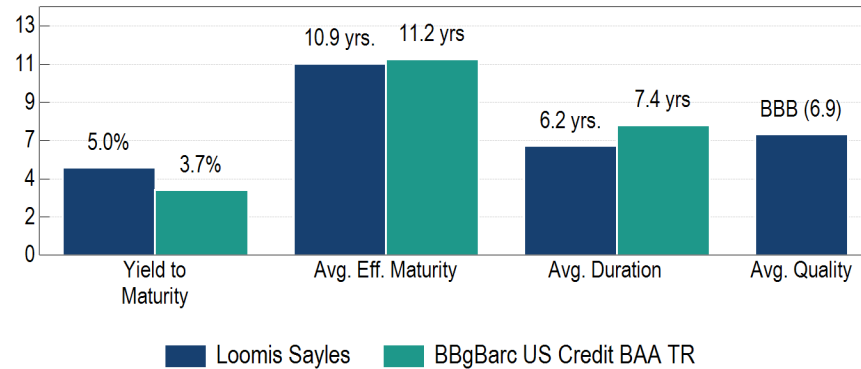


	Quarter		2 Quarters		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	1.4	-0.6	3.8	2.7	4.0	4.0	5.2	5.8								
25th Percentile	1.1	-1.4	1.9	1.9	3.3	3.2	4.4	5.1								
Median	0.9	-1.8	1.1	1.6	3.0	2.8	4.1	4.8								
75th Percentile	0.8	-2.1	0.5	1.3	2.8	2.6	3.7	4.6								
95th Percentile	0.7	-2.5	-0.2	1.0	2.3	2.2	3.3	4.0								
# of Portfolios	218	218	218	217	216	213	205	192								
● Loomis Sayles	3.1	(1)	1.5	(1)	10.1	(1)	3.6	(2)	4.7	(3)	6.9	(1)	7.8	(1)	7.6	(1)
▲ BBgBarc US Credit BAA TR	1.7	(3)	-1.1	(13)	5.2	(1)	2.1	(17)	3.7	(9)	4.2	(3)	5.7	(3)	6.1	(3)

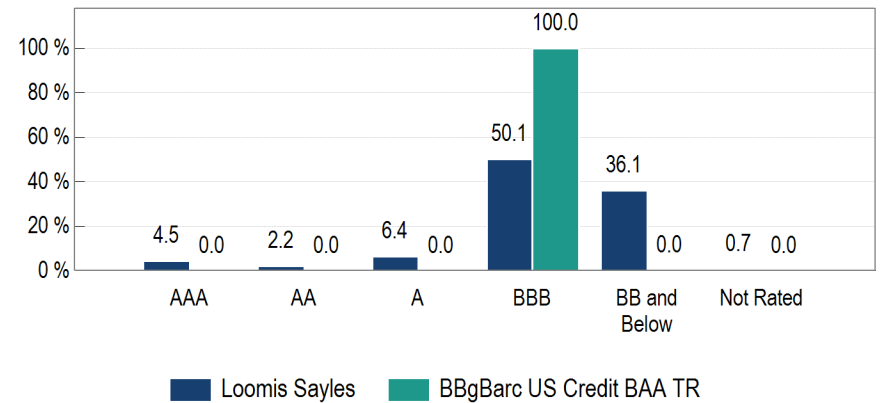
Sectors
Loomis Sayles



Characteristics
Loomis Sayles



Quality Ratings
Loomis Sayles

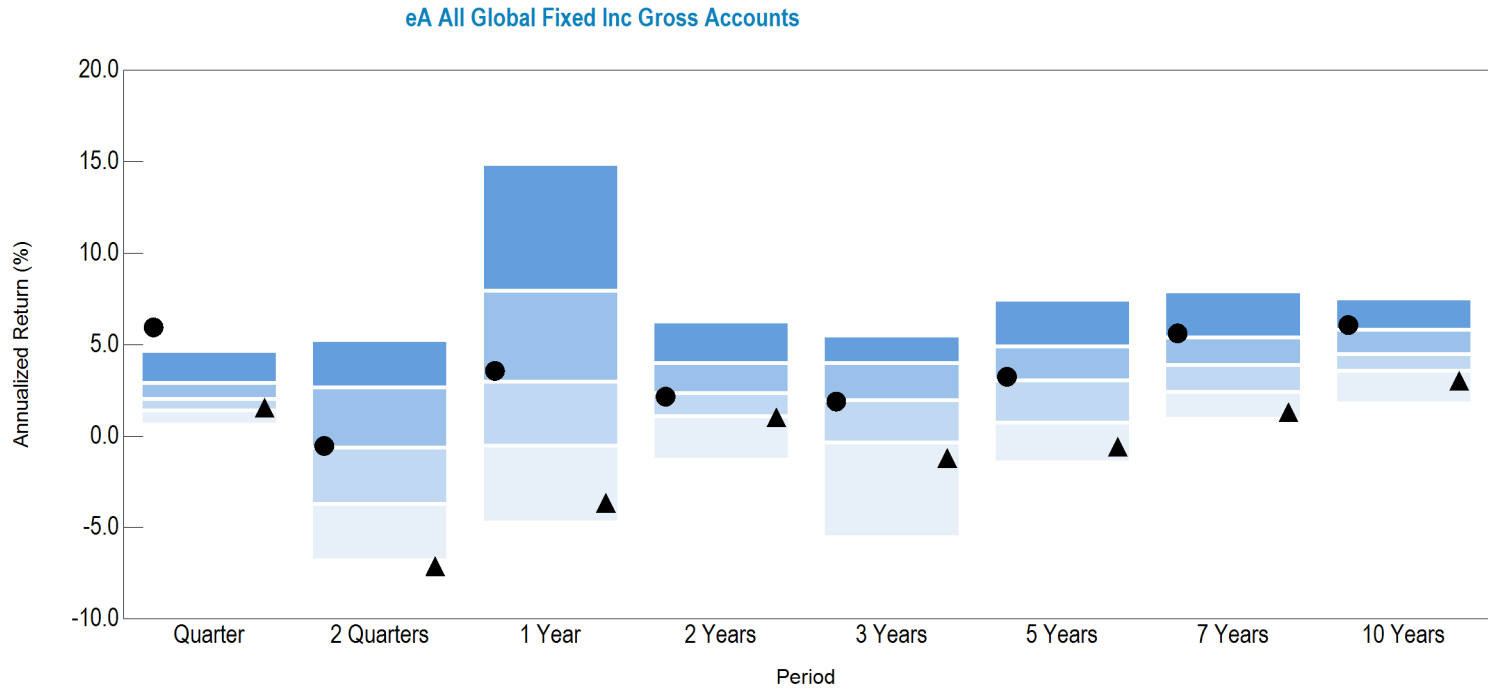


PERFORMANCE BY QUALITY

	<u>NUMBER OF ISSUES</u>	<u>FINAL MARKET VALUE (\$000)</u>	<u>FINAL MARKET VALUE %</u>	<u>QUARTERLY RETURN %</u>	<u>QUARTERLY CONTRIBUTION TO TOTAL RETURN %</u>
Cash & Equiv	2	5,971	1.9	0.23	0.00
Govt & Agency	5	13,012	4.2	0.11	0.00
AAA	19	15,467	5.0	2.65	0.13
AA	4	4,455	1.4	0.58	0.01
A	31	21,522	6.9	7.18	0.48
BAA	174	128,194	41.3	2.74	1.19
BA	94	73,826	23.8	3.61	0.82
B	35	24,661	7.9	4.88	0.38
CAA & Lower	10	2,048	0.7	0.71	0.00
Not Rated	51	21,361	6.9	0.86	0.07
Total Account	425	\$310,517	100.0	3.09	3.09
			Return including Hedges:	3.08	

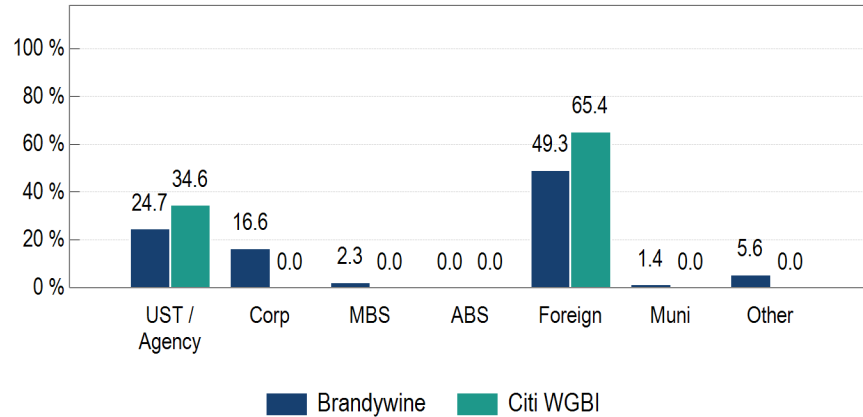
PERFORMANCE BY DURATION

	<u>NUMBER OF ISSUES</u>	<u>FINAL MARKET VALUE (\$000)</u>	<u>FINAL MARKET VALUE %</u>	<u>QUARTERLY RETURN %</u>	<u>QUARTERLY CONTRIBUTION TO TOTAL RETURN %</u>
Cash & Equiv	2	5,971	1.9	0.23	0.00
Under 1 Year	53	24,594	7.9	0.05	0.02
1 - 3 Years	83	72,706	23.4	2.42	0.54
3 - 7 Years	180	126,457	40.7	3.48	1.43
Over 7 Years	107	80,789	26.0	4.28	1.09
Other	0				
Total Account	425	\$310,517	100.0	3.09	3.09
			Return including Hedges:	3.08	

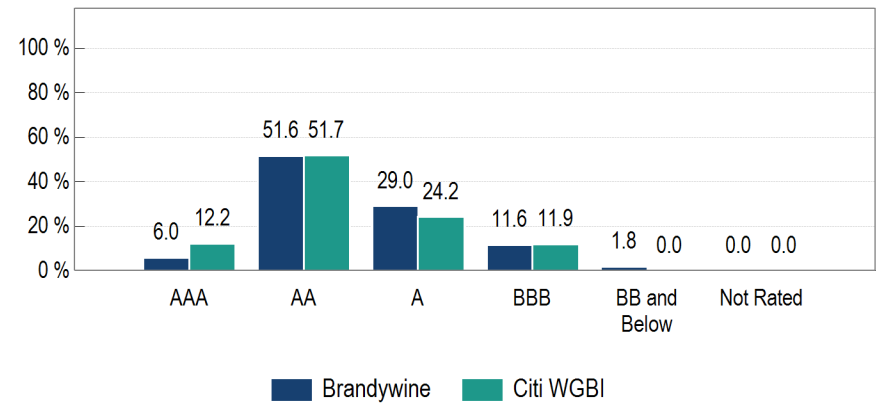


	Return (Rank)							
	Quarter	2 Quarters	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	4.6	5.2	14.9	6.2	5.5	7.4	7.9	7.5
25th Percentile	2.9	2.7	8.0	4.0	4.0	4.9	5.4	5.8
Median	2.0	-0.6	3.0	2.4	2.0	3.1	3.9	4.5
75th Percentile	1.4	-3.7	-0.5	1.1	-0.3	0.8	2.4	3.6
95th Percentile	0.6	-6.8	-4.7	-1.3	-5.5	-1.4	1.0	1.8
# of Portfolios	434	434	434	423	404	338	266	181
● Brandywine	5.9 (3)	-0.5 (50)	3.6 (48)	2.2 (55)	1.9 (51)	3.2 (48)	5.6 (23)	6.1 (22)
▲ Citi WGBI	1.6 (70)	-7.1 (97)	-3.7 (92)	1.0 (77)	-1.2 (84)	-0.6 (91)	1.3 (92)	3.0 (87)

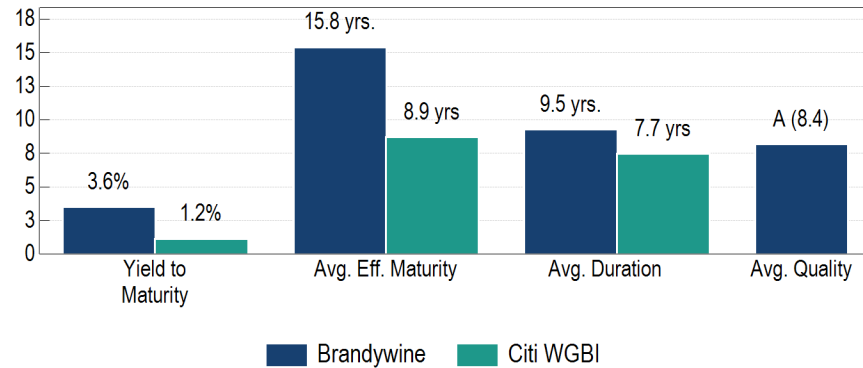
Sectors
Brandywine



Quality Ratings
Brandywine



Characteristics
Brandywine



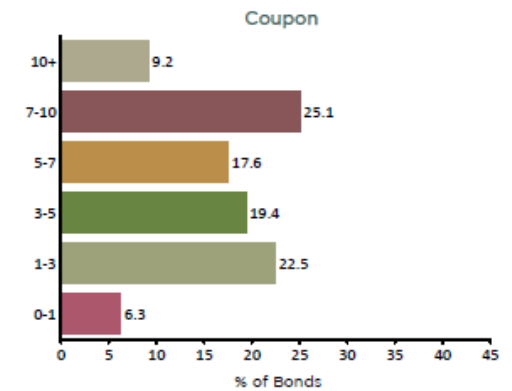
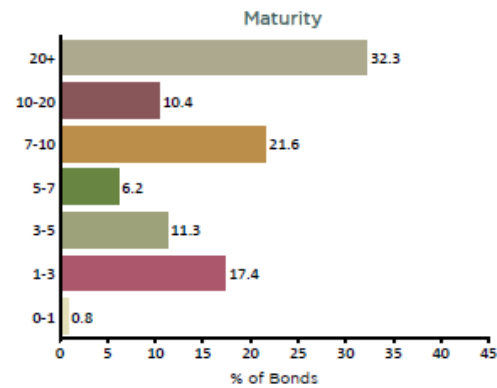
Brandywine

Portfolio Characteristics

Period Ending: March 31, 2017

Portfolio Characteristics

	Portfolio	Primary Benchmark
Yield to Maturity (%)	4.64	1.15
Yield to Worst (%)	4.63	1.15
Modified Duration	6.58	7.67
Effective Duration	6.44	7.83
Average Maturity	13.36	8.94
Average Market Price	102.39	-
Average Coupon (%)	5.48	2.33
Current Yield (%)	4.85	-
# of Issues	139	1,015



Sector Breakdown

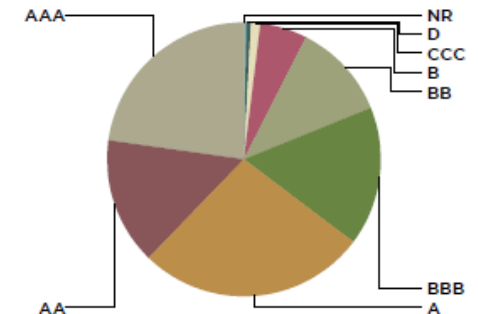
	Market Value (%)	Duration Contribution (In Years)
Government Sovereign	66.12	5.19
Corporate Bond - Investment Grade	9.21	0.57
Government Regional Agencies	6.98	0.45
Corporate Bond - High Yield	5.80	0.26
Municipal Bonds	0.78	0.11
Mortgage Backed Securities	1.89	0.08
Supranational	0.96	0.02
Bank Loan	0.22	0.00
Cash	7.78	-
Derivatives	0.27	(0.10)
Total:	100.00	6.58

PRIMARY BENCHMARK is Citigroup WGBI (USD)

Portfolio Credit Quality (Blended Weighted Average Rating)

Combined Rating	%	Cumulative %
AAA	22.9	22.9
AA	14.9	37.8
A	27.2	65.0
BBB	16.2	81.2
BB	11.6	92.7
B	5.6	98.3
CCC	1.2	99.5
D	0.5	100.0
NR	0.1	100.0

Average Quality: A-



All Averages are US DOLLAR - weighted by the net market value. Average Market Price includes accrued interest. The "Blended Weighted Average Rating" is determined as follows: in line with the methodology used by Barclays Global indices, the middle rating from the three major NRSROs (S & P, Moody's, and Fitch) will be assigned to each security. In the event that ratings are provided by only two agencies, the lowest rating will be assigned. If only one agency assigns a rating, that rating will be applied. If the security is not rated by one of the three major agencies, it is given a rating equivalent to a defaulted bond. The equivalent numerical rating is assigned to each security based on the Security Level scale. A Portfolio Level scale is applied on the weighted average calculation to round for fractional numerical ratings and then converted to an alpha weighted average rating. Cash is included and received the highest rating.

Data included on this page show the aggregate holdings of the Brandywine Emerging Markets Debt Fund ("EMD Fund"), in which the portfolio is invested. Holdings in the EMD Fund are not subject to ACERA's Investment Guidelines. Please note that ACERA owns units of the EMD Fund, not the underlying holdings. Data and characteristics shown are for illustrative purposes only.

Derivatives market value represents the unrealized profit/loss of all derivatives in the portfolio.

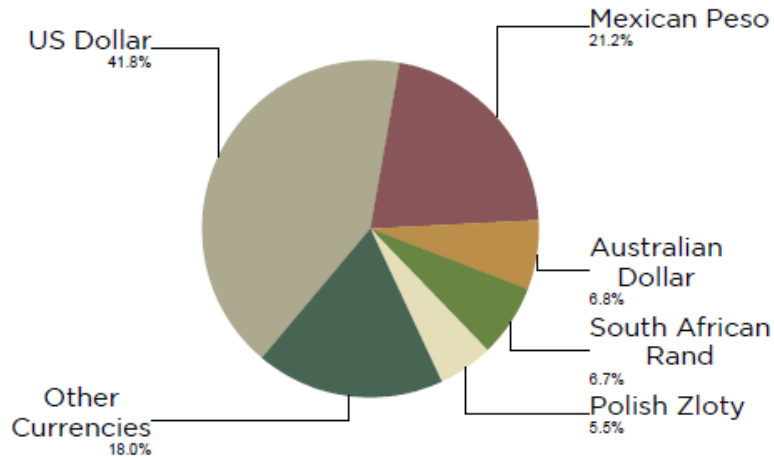
Brandywine
Country & Currency Allocation

Period Ending: March 31, 2017

Country Allocation	3/31/2017			12/31/2016		Currency Allocation	3/31/2017			12/31/2016	
	Portfolio	Index	Active	Portfolio	Change		Portfolio	Index	Active	Portfolio	Change
Japan	-	21.63	(21.63)	-	-	US Dollar	2.19	34.89	(32.70)	9.00	(6.81)
Mexico	13.77	0.72	13.05	12.23	1.53	Euro	5.10	30.99	(25.89)	0.66	4.44
France	-	7.72	(7.72)	0.04	(0.04)	Japanese Yen	4.88	21.63	(16.74)	-	4.88
Italy	0.42	7.32	(6.90)	0.66	(0.25)	Mexican Peso	13.77	0.72	13.05	12.20	1.57
*Brazil	6.72	-	6.72	6.85	(0.13)	British Pound Sterling	15.32	5.62	9.70	15.94	(0.62)
Australia	7.70	1.72	5.99	8.79	(1.09)	Australian Dollar	9.51	1.72	7.80	9.24	0.28
Germany	0.03	5.62	(5.59)	0.03	-	Polish Zloty	7.05	0.53	6.52	1.96	5.09
Poland	6.09	0.53	5.56	1.96	4.13	*Brazilian Real	6.26	-	6.26	6.48	(0.23)
South Africa	5.11	0.43	4.68	5.41	(0.30)	Swedish Krona	6.39	0.36	6.03	6.58	(0.19)
*Indonesia	4.40	-	4.40	4.43	(0.03)	*Indian Rupee	4.79	-	4.79	4.86	(0.07)
Malaysia	4.36	0.33	4.03	3.93	0.43	South African Rand	5.11	0.43	4.68	5.41	(0.30)
Spain	0.82	4.36	(3.54)	0.90	(0.08)	Norwegian Krone	4.88	0.22	4.67	5.14	(0.26)
*Argentina	2.24	-	2.24	2.15	0.09	*Indonesian Rupiah	4.40	-	4.40	4.43	(0.03)
Belgium	-	1.94	(1.94)	-	-	Malaysian Ringgit	4.36	0.33	4.03	3.93	0.43
*Portugal	1.87	-	1.87	1.90	(0.03)	*Colombian Peso	2.74	-	2.74	2.79	(0.05)
Netherlands	0.05	1.79	(1.74)	-	0.05	*Argentine Peso	2.19	-	2.19	2.05	0.14
Canada	0.06	1.65	(1.59)	0.07	-	Canadian Dollar	-	1.65	(1.65)	-	-
*Turkey	0.98	-	0.98	0.95	0.03	*Hungarian Forint	0.97	-	0.97	3.95	(2.98)
*Hungary	0.97	-	0.97	3.95	(2.98)	Danish Krone	-	0.46	(0.46)	-	-
Supranational	0.96	-	0.96	1.07	(0.11)	Singapore Dollar	-	0.32	(0.32)	-	-
*Colombia	0.84	-	0.84	1.15	(0.30)	Swiss Franc	-	0.15	(0.15)	-	-
New Zealand	0.76	-	0.76	1.67	(0.91)	New Zealand Dollar	0.10	-	0.10	0.08	0.02
United Kingdom	6.15	5.62	0.53	6.86	(0.71)	Chilean Peso	-	-	-	5.30	(5.30)
Ireland	0.17	0.63	(0.45)	0.22	(0.05)						
Luxembourg	0.17	-	0.17	0.20	(0.02)						
*Jamaica	0.15	-	0.15	0.17	(0.02)						
European Union	0.03	-	0.03	-	0.03						
United States	34.91	34.89	0.02	32.99	1.92						
Other Countries	-	3.13	(3.13)	1.73	(1.73)						
Derivative P/L	0.27	-	0.27	(0.31)	0.58						
Total:	100.00	100.00	-	100.00	-	Total:	100.00	100.00	-	100.00	-

*Emerging Markets are defined as non-WGBI markets with local currency long-term debt rating below A- (or the equivalent) assigned by all NRSROs that provide such a rating. NRSRO means one of the following Nationally Recognized Statistical Rating Organizations: Standard & Poor's Ratings Services, Moody's Investors Service and Fitch, Inc.

Source of Portfolio Duration by Currency Denomination



**Duration Contribution by Currency
(In Years)**

Currency	3/31/2017					12/31/2016	
	0-3	>3-10	>10-20	>20+	Total	Total	Change
US Dollar	0.03	0.21	0.12	2.39	2.75		(0.24)
Mexican Peso	-	-	0.32	1.08	1.39		0.15
Australian Dollar	-	0.45	-	-	0.45		(0.00)
South African Rand	-	0.03	-	0.41	0.44		(0.02)
Polish Zloty	0.02	0.34	-	-	0.36		0.22
*Brazilian Real	-	0.35	-	-	0.35		0.02
*Indonesian Rupiah	-	0.01	0.30	0.03	0.33		0.01
Euro	-	0.13	(0.03)	0.05	0.15		(0.02)
Malaysian Ringgit	-	0.15	-	-	0.15		0.01
*Argentine Peso	-	0.06	-	-	0.06		0.00
*Hungarian Forint	-	0.06	-	-	0.06		(0.15)
British Pound Sterling	0.08	(0.04)	-	-	0.04		(0.07)
New Zealand Dollar	-	0.04	-	-	0.04		(0.05)
Total	0.12	1.80	0.70	3.96	6.58		(0.15)

**Duration Contribution by Country
vs. Citigroup WGBI (USD)**

Country	(In Years)					Index	Active	12/31/2016 Total Change
	3/31/2017							
	0-3	>3-10	>10-20	>20+	Total			
Japan	-	-	-	-	-	2.19	(2.19)	-
Mexico	-	-	0.32	1.08	1.39	0.04	1.35	0.14
United Kingdom	0.08	(0.03)	-	-	0.05	0.69	(0.64)	(0.06)
France	-	-	-	-	-	0.58	(0.58)	(0.00)
Italy	-	-	-	0.01	0.01	0.49	(0.48)	(0.02)
Germany	-	0.00	(0.03)	-	(0.03)	0.42	(0.45)	(0.03)
South Africa	-	0.03	-	0.41	0.44	0.03	0.41	(0.02)
*Brazil	0.00	0.37	-	-	0.37	-	0.37	0.01
United States	0.00	0.17	0.12	2.14	2.44	2.08	0.36	(0.16)
Australia	0.00	0.45	-	-	0.45	0.11	0.34	(0.00)
Poland	0.02	0.34	-	-	0.36	0.02	0.34	0.22
*Indonesia	-	0.01	0.30	0.03	0.33	-	0.33	0.01
Spain	-	-	-	0.05	0.05	0.30	(0.25)	(0.01)
Belgium	-	-	-	-	-	0.18	(0.18)	-
Netherlands	-	0.00	-	-	0.00	0.14	(0.14)	0.00
*Turkey	-	-	-	0.13	0.13	-	0.13	0.01
Malaysia	-	0.15	-	-	0.15	0.02	0.13	0.01
*Portugal	-	0.12	-	-	0.12	-	0.12	0.02
*Colombia	-	-	-	0.12	0.12	-	0.12	(0.04)
Canada	-	0.00	-	-	0.00	0.11	(0.11)	(0.00)
Austria	-	-	-	-	-	0.09	(0.09)	-
*Argentina	0.00	0.06	-	-	0.06	-	0.06	(0.00)
*Hungary	-	0.06	-	-	0.06	-	0.06	(0.15)
Denmark	-	-	-	-	-	0.04	(0.04)	-
New Zealand	-	0.04	-	-	0.04	-	0.04	(0.05)
Ireland	-	0.00	-	-	0.00	0.04	(0.04)	(0.00)
Supranational	0.02	-	-	-	0.02	-	0.02	(0.00)
Luxembourg	0.00	0.00	-	-	0.00	-	0.00	0.00
*Jamaica	-	0.00	-	-	0.00	-	0.00	(0.00)
Other Countries	-	-	-	-	-	0.09	(0.09)	(0.00)
Total	0.12	1.80	0.70	3.96	6.58	7.67	(1.08)	(0.15)

*Emerging Markets are defined as non-WGBI markets with local currency long-term debt rating below A- (or the equivalent) assigned by all NRSROs that provide such a rating. NRSRO means one of the following Nationally Recognized Statistical Rating Organizations: Standard & Poor's Ratings Services, Moody's Investors Service and Fitch, Inc.

Manager Compliance Checklist

Period Ending: March 31, 2017

MANAGER	INDEX OUTPERFORMANCE						DATABASE BENCHMARK		MANAGER TO BE PLACED ON WATCH LIST	MANAGER TO BE PLACED ON PROBATION
	AFTER FEE VS. INDEX		BEFORE FEE VS. INDEX		RISK ADJUSTED (SHARPE RATIO)		MEDIAN			
	3 YEAR	5 YEAR	3 YEAR	5 YEAR	3 YEAR	5 YEAR	3 YEAR	5 YEAR		
AQR (MSCI ACWI EX US GROSS)	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
BAIRD ADVISORS (BBGBARC US AGGREGATE)	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
BIVLIUM (RUSSELL 3000 +1%) ¹	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
BRANDYWINE FIXED INCOME (CITI WGBI)	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO
CAPITAL GROUP (MSCI ACWI EX US GROSS)	YES	YES	YES	YES	YES	NO	NO	NO	YES	YES
KENNEDY (RUSSELL 2000 VALUE +2.5%)	NO	YES	NO	YES	YES	YES	YES	YES	NO	NO
LOOMIS SAYLES (BBGBARC US CREDIT BAA)	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
MELLON S&P 500 (S&P 500) 1 Year Tracking Error: 0.006345%	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
MONDRIAN (MSCI ACWI EX US GROSS)	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES
NEXT CENTURY-SCG (RUSSELL 2000 GROWTH +2.5%)	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
NEXT CENTURY-USCG (RUSSELL MICROCAP GROWTH +2.5%)	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
PZENA (RUSSELL 1000 VALUE +2%)	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES
TCW (RUSSELL 1000 GROWTH +2%) ²	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
TEMPLETON (MSCI ACWI EX US SMALL CAP GROSS)	NO	YES	YES	YES	YES	YES	NO	NO	YES	YES

¹ Prior to 7/1/13, benchmark was linked to Russell 3000 +2%. ² Prior to 7/1/13, benchmark was linked to Russell 1000 Growth +2.5%.

Policy Index and Benchmark History

Period Ending: March 31, 2017

Total Plan Policy Index	As of:												
	7/1/16	1/1/13	10/1/11	4/1/11	1/1/09	7/1/06	4/1/03	6/1/01	10/1/97	1/1/96	10/1/94	1/1/92	1/1/80
91-day UST Bill									1%	1%	1%	1%	2%
BBgBarc Aggregate	11.25%	11.25%	15%	18%	18%	21%	23%	26%	33%	29%	32%	37%	30%
BBgBarc High Yield	1.50%	1.50%	2.0%	2.4%	2%	3%	3%	3%					
Bloomberg Commodity	0.75%												
Citigroup WGBI ex US	2.25%	2.25%	3%	3.6%	3.6%	4%	4%	5%					
CPI-U +3% (RR)		5.00%	5%										
MSCI ACWI ex US					23%	22%	22%	22%					
MSCI ACWI ex US IMI	26.00%	27.00%	25%	23%									
MSCI EAFE									10%	10%	10%	10%	
MSCI Emg Mkts Free ex Malaysia									3%				
MSCI World net													10%
NCREIF				6%	6%	9%	9%	9%					
NCREIF ODCE	8.00%	6.00%	6%										
Russell 3000	28.00%	32.00%	34%	37%	37%	41%	39%	35%	42%	49%	47%	40%	
Russell 3000 +1% (PE)	18.00%	15.00%	10%										
Russell 3000 +1.5% (PE)				10%	10%								
Russell 3000 +4% (AI)									2%				
S&P 500													55%
S&P Global Infrastructure	1.75%												
S&P Global Natural Resources	2.50%												
Wilshire RE									9%	11%	10%	12%	3%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

US Equity Benchmark		As of:				
		1/1/92	1/1/80			
Russell 3000		100%	0%			
S&P 500		0%	100%			
		100.0%	100.0%			
International Equity Benchmark		As of:				
		4/1/11	6/1/01	10/1/97	1/1/92	1/1/80
MSCI ACWI ex US			100%			
MSCI ACWI ex US IMI		100%				
MSCI EAFE				77%	100%	
MSCI Emg Mkts Free ex Malaysia				23%		
MSCI World net						100%
		100.0%	100.0%	100.0%	100.0%	100.0%
Fixed Income Benchmark		As of:				
		6/1/01	1/1/80			
BBgBarc Aggregate		75%	100%			
BBgBarc High Yield		10%				
Citigroup WGBI ex US		15%				
		100.0%	100.0%			
Real Estate Benchmark		As of:				
		1/1/80				
NCREIF ODCE		100%				
		100.0%				
PEARLS Benchmark		As of:				
		10/1/11	12/1/08			
Russell 3000 +1%		100%				
Russell 3000 +1.5%			100%			
		100.0%	100.0%			
Real Assets Benchmark		As of:				
		7/1/16	10/1/11			
CPI-U +3%			100%			
Bloomberg Commodity		15%				
S&P Global Infrastructure		35%				
S&P Global Natural Resources		50%				
		100.0%	100.0%			

Bivium Benchmark	As of:	
	7/1/13	8/1/08
Russell 3000 +1%	100%	
Russell 3000 +2%		100%
	100.0%	100.0%

Pzena Benchmark	As of:	
	2/1/06	
Russell 1000 Value +2%	100%	
	100.0%	

TCW Benchmark	As of:	
	7/1/13	7/1/99
Russell 1000 Growth +2%	100%	
Russell 1000 Growth +2.5%		100%
	100.0%	100.0%

Kennedy Benchmark	As of:	
	10/1/10	
Russell 2000 Value +2.5%	100%	
	100.0%	

Next Century Benchmark	As of:	
	11/1/02	
Russell 2000 Growth +2.5%	100%	
	100.0%	

Next Century-US Benchmark	As of:	
	7/1/06	
Russell MicroCap Growth +2.5%	100%	
	100.0%	

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$.

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: $\text{excess return} / \text{tracking error}$.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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