

# REGIONAL TRANSIT **ISSUE PAPER**

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Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
13	12/13/17	Retirement	Action	11/13/17

Subject: Receive and File Investment Performance Results for the ATU, IBEW and Salaried Employee Retirement Plans for the Quarter Ended September 30, 2017 (ALL). (Adelman)

## ISSUE

Receive and File Investment Performance Results for the ATU, IBEW and Salaried Employee Retirement Plans for the Quarter Ended September 30, 2017 (ALL). (Bernegger)

## RECOMMENDED ACTION

Motion: Receive and File Investment Performance Results for the ATU, IBEW and Salaried Employee Retirement Plans for the Quarter Ended September 30, 2017 (ALL). (Bernegger)

## FISCAL IMPACT

None

## DISCUSSION

Pension funds are invested consistent with the Statement of Investment Objectives and Policy Guidelines adopted by each Retirement Board. Attached are the two investment performance reports prepared by the Boards' pension investment consultants. The first report is the Third Quarter 2017 Market Update (Attachment 1) and the second is the Investment Measurement Service Quarterly Review as of September 30, 2017 (Attachment 2). These reports provide a detailed analysis of the performance of each of the investment managers retained by the Retirement Boards to manage the Retirement Funds for the quarter ended September 30, 2017. The second report compares the performance of each investment manager with benchmark indices, other fund managers of similarly invested portfolios and other indices.

### Investment Compliance Monitoring

In accordance with the Statement of Investment Objectives and Policy Guidelines for the Sacramento Regional Transit District Retirement Plans (Investment Policy), State Street Bank performs daily investment compliance monitoring on the Plans' three (3) actively managed funds. As of September 30, 2017, there were no compliance warnings or alerts to be reported; therefore, the investments are in compliance with the Investment Policy. The final attached report includes the monitoring summary (Attachment 3).

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Approved:

Presented:

FINAL

VP Finance/CFO

Treasury Controller

# REGIONAL TRANSIT ISSUE PAPER

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Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
	12/13/17	Retirement	Action	11/13/17

Subject: Receive and File Investment Performance Results for the ATU, IBEW and Salaried Employee Retirement Plans for the Quarter Ended September 30, 2017 (ALL). (Adelman)

The table below provides an overview of the quarter performance, quarter ending September 30, 2017 – gross of investment management fees:

Investment Manager - Description - Benchmark	Benchmark <u>Index</u>	ATU, IBEW & Salaried Fund	Investment Gains/ <u>(Losses)</u>	Pension Fund Contributions/ <u>(Withdrawals)</u>
Boston Partners (large cap value) Russell 1000 Value	3.11%	<b>4.89%</b>	\$2,222,387	\$(1,019,591)
S&P 500 Index (large cap value) S&P 500	4.48%	<b>4.49%</b>	\$2,029,272	\$(562,691)
Atlanta Capital (small cap) Russell 2000	5.67%	3.55%	\$880,357	-
Brandes (international equities) MSCI EAFE*	-	-	\$155	-
JPMorgan (international equities) MSCI EAFE	-	-	-	-
Pyrford (international equities) MSCI EAFE	5.40%	2.80%	\$715,918	-
MSCI EAFE Index (international equities) MSCI EAFE	5.40%	<b>5.48%</b>	\$574,164	-
AQR (small cap international equities) MSCI EAFE SC	7.46%	<b>8.55%</b>	\$1,142,980	-
Dimensional Fund Advisors (emerging markets) MSCI EM	7.89%	6.68%	\$1,010,409	-
Metropolitan West (fixed income) Barclays Agg.	0.85%	<b>0.93%</b>	\$824,535	-
Totals	3.79%	3.51%	\$9,400,177	\$(1,582,282)

**Bold** – fund exceeding respective benchmark

\*The investments held in Brandes are foreign tax reclaim receivables. Currently, staff and the custodian do not have an estimated time of receipt. Until receipt of funds, Brandes will remain as a fund manager.

The table below provides an overview of the year to date performance, as of June 30, 2017 – net of investment management fees:

Investment Manager - Description - Benchmark	Benchmark <u>Index</u>	ATU, IBEW & Salaried Fund	Investment Gains/ <u>(Loss)</u>	Pension Fund Contributions/ <u>(Withdrawals)</u>
Boston Partners (large cap value) Russell 1000 Value	15.12%	<b>20.81%</b>	\$8,313,102	\$(2,208,504)
S&P 500 Index (large cap value) S&P 500	18.61%	<b>18.61%</b>	\$7,607,154	\$(2,245,146)
Atlanta Capital (small cap) Russell 2000	20.74%	16.25%	\$3,558,132	\$(346,863)
Brandes (international equities) MSCI EAFE	-	-	\$160	-
JPMorgan (international equities) MSCI EAFE	-	-	\$2,834,479	\$(25,953,819)
Pyrford (international equities) MSCI EAFE**	-	-	\$298,505	\$25,953,819
MSCI EAFE Index (international equities) MSCI EAFE	19.10%	<b>19.44%</b>	\$1,798,773	\$(12,201,601)
AQR (small cap international equities) MSCI EAFE SC**	21.84%	20.40%	\$2,406,311	\$12,201,601
Dimensional Fund Advisors (emerging markets) MSCI EM	22.46%	20.32%	\$2,682,326	-
Metropolitan West (fixed income) Barclays Agg.	0.07%	<b>0.55%</b>	\$487,266	-
Totals	12.55%	12.10%	\$29,986,208	\$(4,800,513)

**Bold** – fund exceeding respective benchmark

\*\*Manager has not had investment activity for a full year. Information will be included when appropriate data is available.

# Callan

December 13, 2017



## **Sacramento Regional Transit District**

Third Quarter 2017  
Market Update

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**Anne Heaphy**

Fund Sponsor Consulting

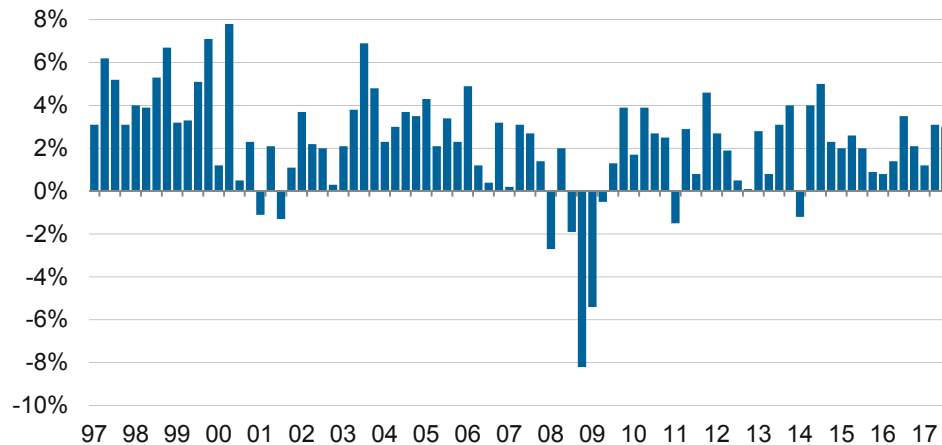
**Uvan Tseng, CFA**

Fund Sponsor Consulting

# Economic Commentary

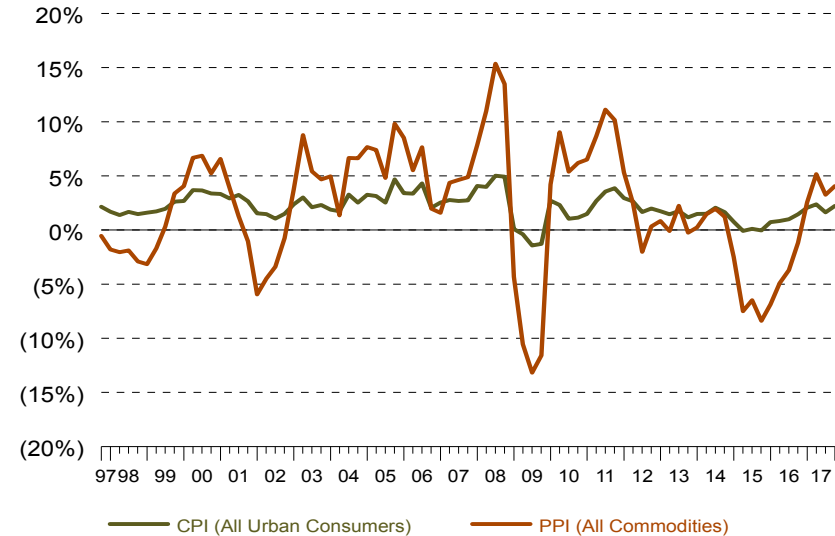
## Third Quarter 2017

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

- The first estimate of the third quarter GDP came in at an unexpectedly solid 3.0%. Growth was supported by a rise in inventory investment and a decrease in imports, offsetting the setback in consumer spending and construction related to hurricanes Harvey & Irma. The rebuilding efforts are likely to boost GDP in the 4th quarter and into 2018. Second quarter GDP was revised up to 3.1%, the fastest pace since the first quarter of 2015.
- In the first two months of the quarter, job growth was weaker than expected, though still within consensus range (July: +138,000; August: +169,000). In September, 33,000 jobs were shed from the payroll, reflecting effects of hurricanes that blew through the Southeastern U.S. Nonetheless, unemployment rate fell 0.2% to 4.2%, the lowest reading since January 2001. Labor market participation broke through its resistance level and climbed 0.3% to 63.1%. Average hourly earnings grew 2.9% year-over-year.
- Hurricane Harvey gave a boost to energy prices, inflating the headline figure above core. For the trailing 12 months ended September, Headline CPI was +2.2%, and Core CPI (excluding food and energy) was +1.7%.

# Asset Class Performance

Periods Ended September 30, 2017

YTD as of 12/12/17:

S&P 500:

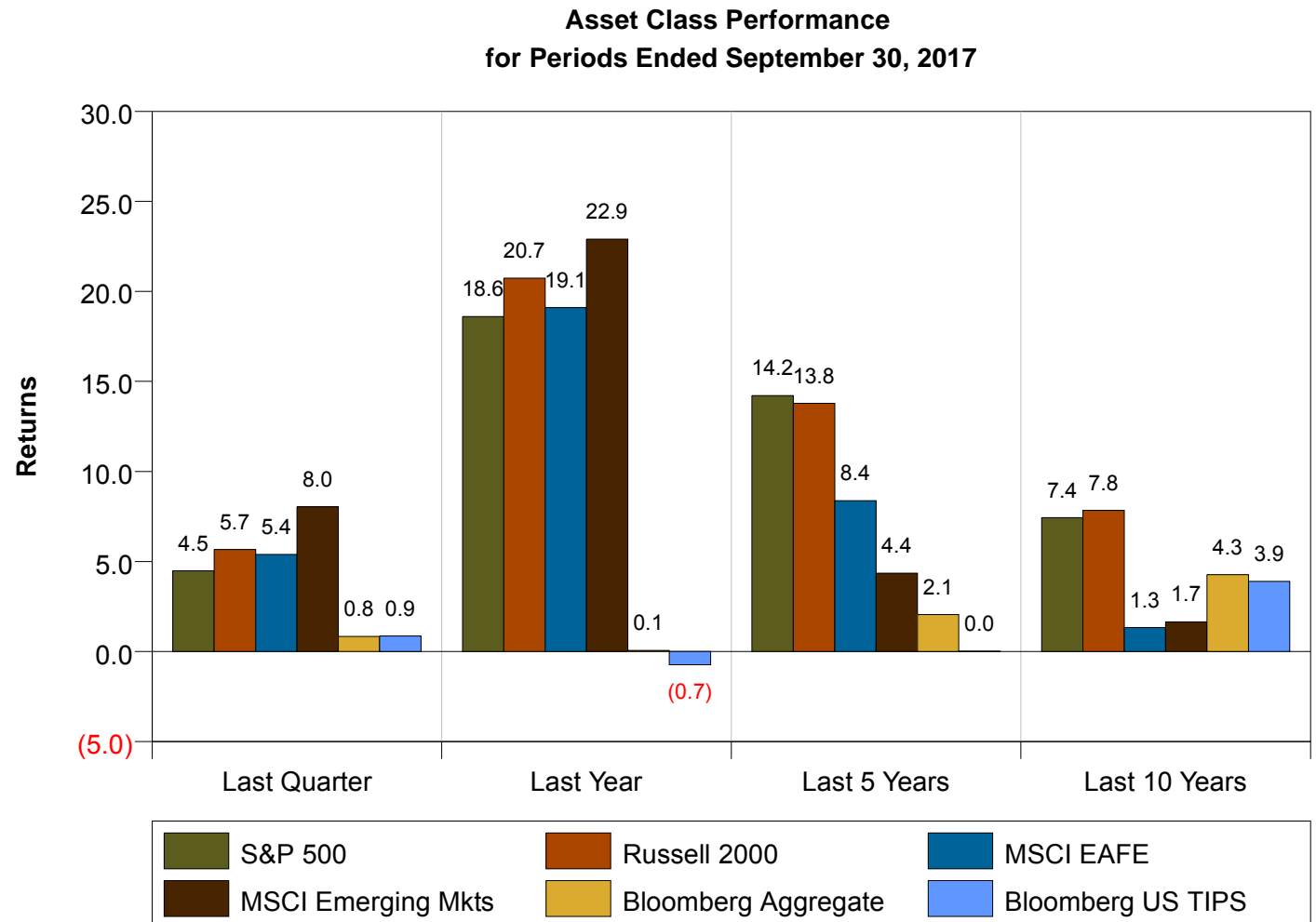
Russell 2000:

MSCI EAFE:

MSCI Emerging Markets:

Bloomberg Aggregate:

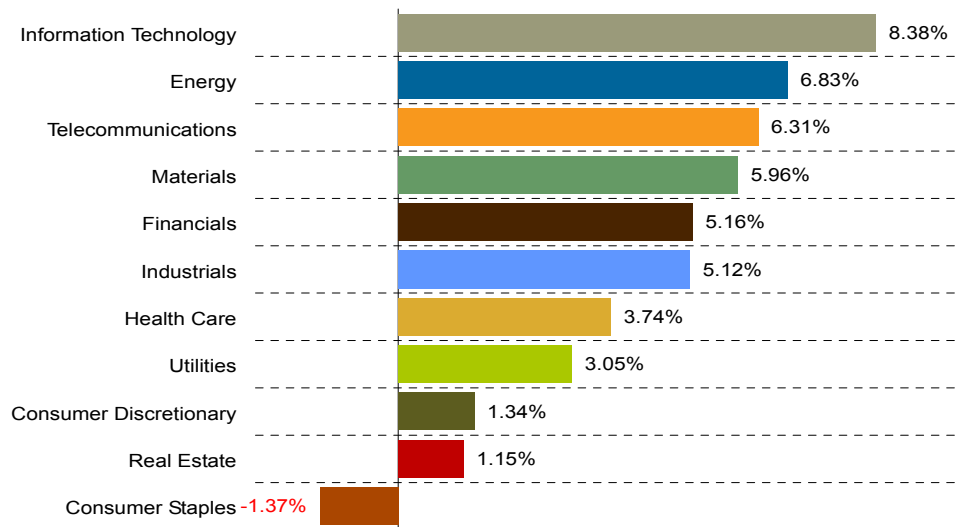
Bloomberg TIPS:



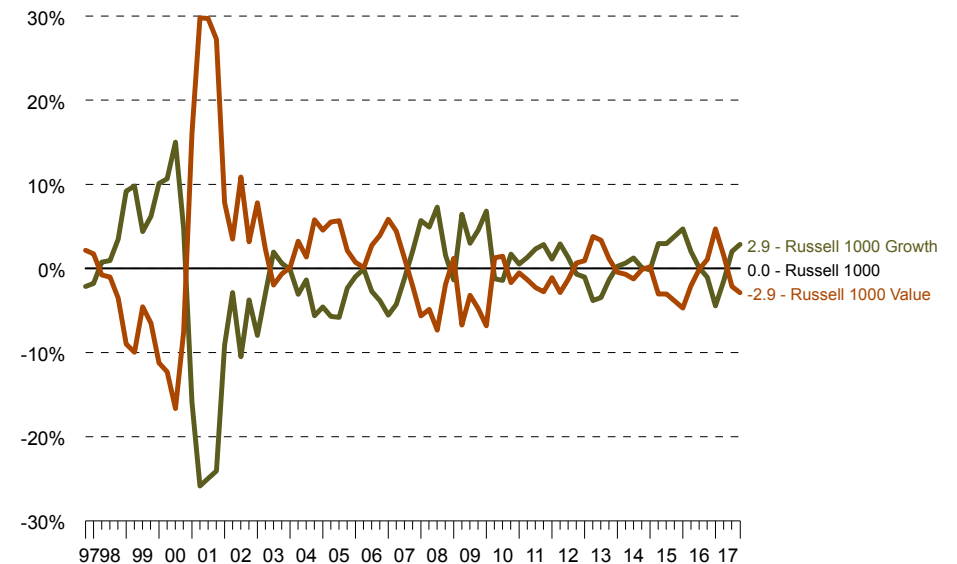
# U.S. Equity

Third Quarter 2017

## Russell 3000 Sector Returns



## Rolling One-Year Relative Returns (versus Russell:1000 Index)



## Third Quarter Index Returns

Russell 3000:	4.6%
S&P 500:	4.5%
Russell Mid Cap:	3.5%
Russell 2000:	5.7%

Source: Russell Investment Group

# U.S. Equity Style Returns

Periods Ended September 30, 2017

3Q 2017				Annualized 1 Year Returns		
Value	Core	Growth		Value	Core	Growth
3.6%	4.9%	6.1%	Large	16.0%	19.8%	23.4%
2.1%	3.5%	5.3%	Mid	13.4%	15.3%	17.8%
5.1%	5.7%	6.2%	Small	20.6%	20.7%	21.0%

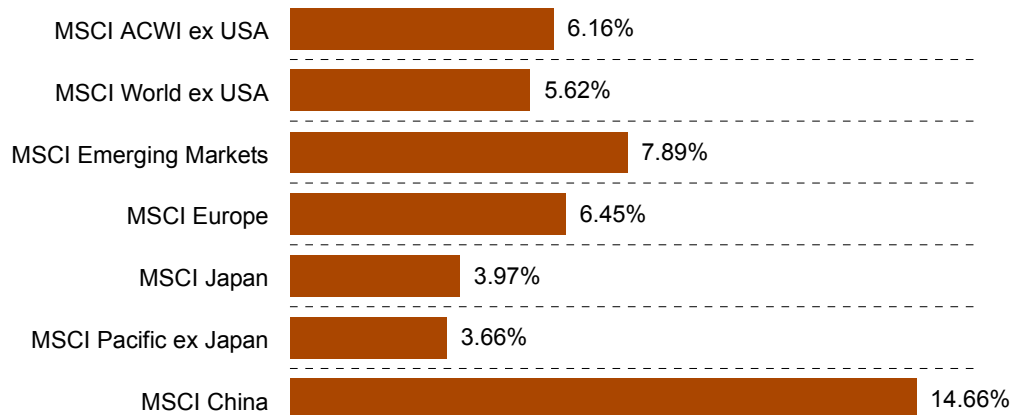
- Several U.S. stock market indices hit record highs during the third quarter, as investors concentrated on meaningful tax reform and shrugged off turbulent events in the news, including escalating tensions with North Korea, several severe natural disasters, and uncertainty around domestic agenda items.
- Small cap stocks reversed course from the prior two quarters and outperformed large cap. In addition, growth led value across market capitalizations, fueled by the globally dominant Tech names, the so-called “FAANG” stocks. Growth outpaced value by 2.5% in large caps and by 1.1% in small caps.

Large Cap Core is represented by the Russell Top 200 Index, Large Cap Value is represented by the Russell Top 200 Value Index and Large Cap Growth is represented by the Russell Top 200 Growth Index. Mid Cap Core is represented by the Russell Mid Cap Index, Mid Cap Value is represented by the Russell Mid Cap Value Index and Mid Cap Growth is represented by the Russell Mid Cap Growth Index. Small Cap Core is represented by the Russell 2000 Index, Small Cap Value is represented by the Russell 2000 Value Index and Small Cap Growth is represented by the Russell 2000 Growth Index.

# Non-US Equity

Third Quarter 2017

## Regional Quarterly Performance (U.S. Dollar)



Source: MSCI, Callan

## Quarterly Return Attribution for EAFE (U.S. Dollar)

Country	Total	Local	Currency	Weight
Australia	3.14%	0.82%	2.29%	6.83%
Austria	12.68%	8.71%	3.65%	0.25%
Belgium	9.24%	5.39%	3.65%	1.18%
Denmark	7.71%	4.01%	3.56%	1.86%
Finland	3.27%	-0.37%	3.65%	1.00%
France	8.36%	4.54%	3.65%	10.77%
Germany	7.74%	3.95%	3.65%	9.76%
Hong Kong	5.11%	5.16%	-0.05%	3.45%
Ireland	6.06%	2.32%	3.65%	0.46%
Israel	-12.71%	-12.62%	-1.21%	0.48%
Italy	13.68%	9.67%	3.65%	2.47%
Japan	3.97%	4.16%	-0.18%	23.03%
Netherlands	9.25%	5.74%	3.65%	3.72%
New Zealand	-0.14%	1.14%	-1.27%	0.16%
Norway	19.20%	13.27%	5.23%	0.70%
Portugal	13.18%	9.19%	3.65%	0.16%
Singapore	3.11%	1.72%	1.39%	1.27%
Spain	4.27%	0.60%	3.65%	3.46%
Sweden	5.48%	2.07%	3.33%	2.93%
Switzerland	1.97%	3.03%	-1.03%	8.24%
U.K.	5.17%	1.82%	3.29%	17.82%

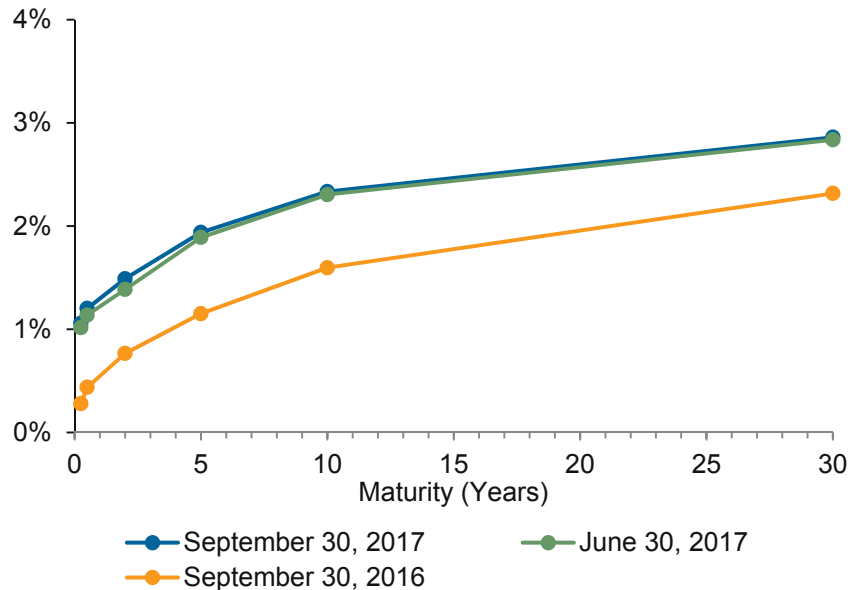
- Non-U.S. developed equity (+5.6%) outperformed the U.S. for the third consecutive quarter as the European market (+6.5%) continued to post positive economic data and corporate earnings growth with some signs of political stability.
- The U.S. dollar continued to weaken, benefitting overseas returns for U.S. investors. The U.S. dollar was down 3-4% versus the euro, Canadian dollar, and the U.K. pound. Losses against the euro stemmed from an upside surprise with European growth and market-friendly outcomes in European elections.
- Regional gains were broad-based, with Emerging Markets (+7.9%) leading the pack and topping developed markets for the third consecutive quarter, fueled by a soft dollar, synchronized global growth, and strong oil & commodity prices. China (+14.7%) continues to be the key driver, with GDP growth of 6.9% that beat expectations.



# Fixed Income

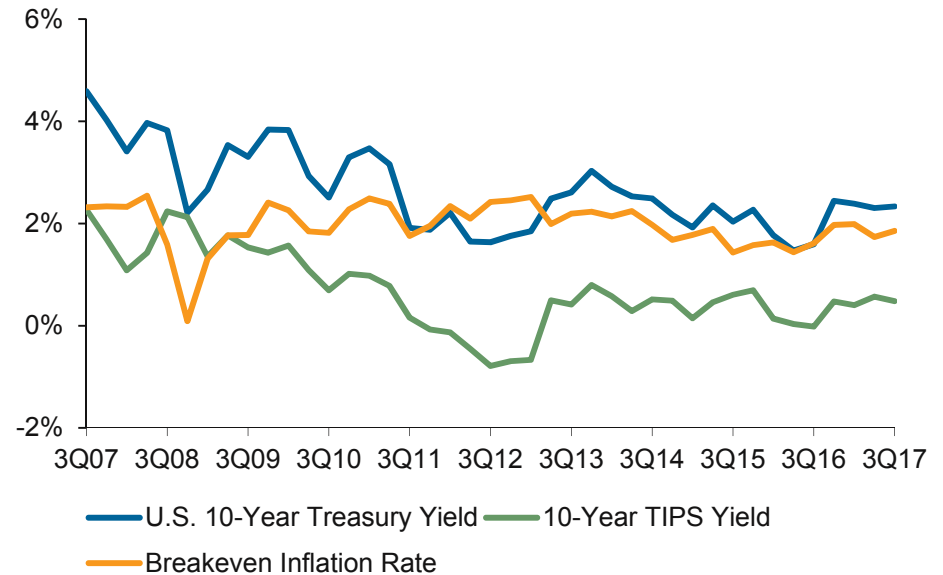
Third Quarter 2017

## U.S. Treasury Yield Curves



Source: Bloomberg

## Historical 10-Year Yields



- During the quarter, bonds participated in the “everything rally” alongside stocks and commodities. Simultaneously, volatility in the fixed income markets sat near historic lows, and overall risk appetite remained strong.
- The yield curve continued its flattening trend, as short-term treasuries rose to 1.5%, the highest level since August 2008, while moderate growth and inflation kept long-term rates low and range bound.
- The 10-year Treasury yield touched 2.00% during the quarter on geopolitical risks related to North Korea, but ended the quarter at 2.33%. And the 10-year breakeven spread (the difference between nominal and real yields) rose to 1.84% as of quarter-end from 1.73% at the end of the second quarter.



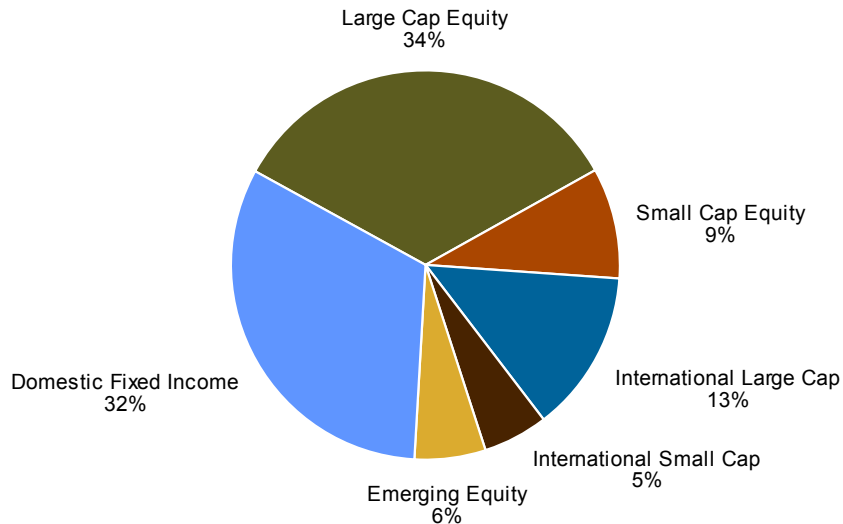
**Sacramento Regional  
Transit District**

Total Fund Overview

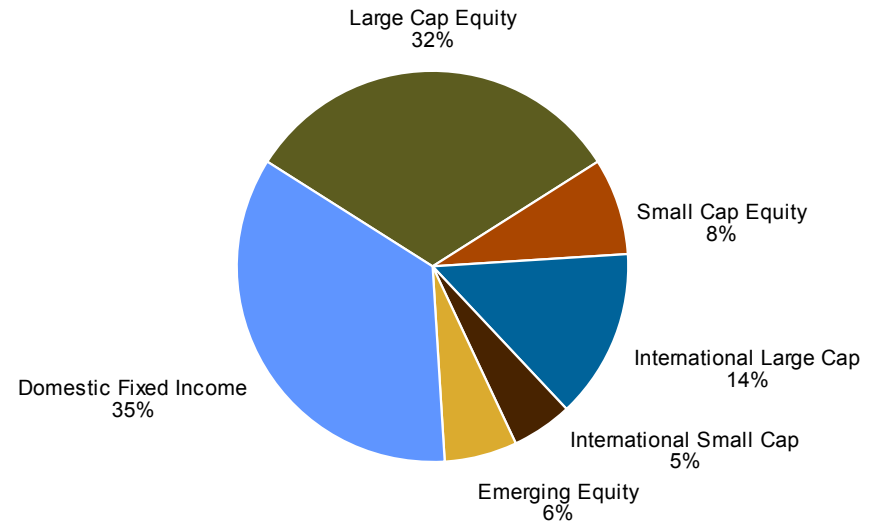
# RT Asset Allocation

As of September 30, 2017

**Actual Asset Allocation**



**Target Asset Allocation**



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap Equity	94,079	33.9%	32.0%	1.9%	5,172
Small Cap Equity	25,667	9.2%	8.0%	1.2%	3,440
International Large Cap	37,380	13.5%	14.0%	(0.5%)	(1,517)
International Small Cap	14,931	5.4%	5.0%	0.4%	1,040
Emerging Equity	16,459	5.9%	6.0%	(0.1%)	(211)
Domestic Fixed Income	89,320	32.1%	35.0%	(2.9%)	(7,923)
Total	277,836	100.0%	100.0%		

# Total Fund

## Performance Attribution

### Relative Attribution Effects for Quarter ended September 30, 2017

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	34%	32%	4.69%	4.48%	0.07%	0.01%	0.08%
Small Cap Equity	9%	8%	3.55%	5.67%	(0.19%)	0.01%	(0.18%)
International Large Cap	13%	14%	3.58%	5.40%	(0.24%)	(0.01%)	(0.25%)
International Small Cap	5%	5%	8.55%	7.46%	0.06%	0.01%	0.06%
Emerging Equity	6%	6%	6.68%	7.89%	(0.07%)	(0.01%)	(0.08%)
Domestic Fixed Income	33%	35%	0.93%	0.85%	0.03%	0.07%	0.09%
<b>Total</b>			<b>3.51%</b>	<b>= 3.79%</b>	<b>+ (0.35%)</b>	<b>+ 0.07%</b>	<b>(0.28%)</b>

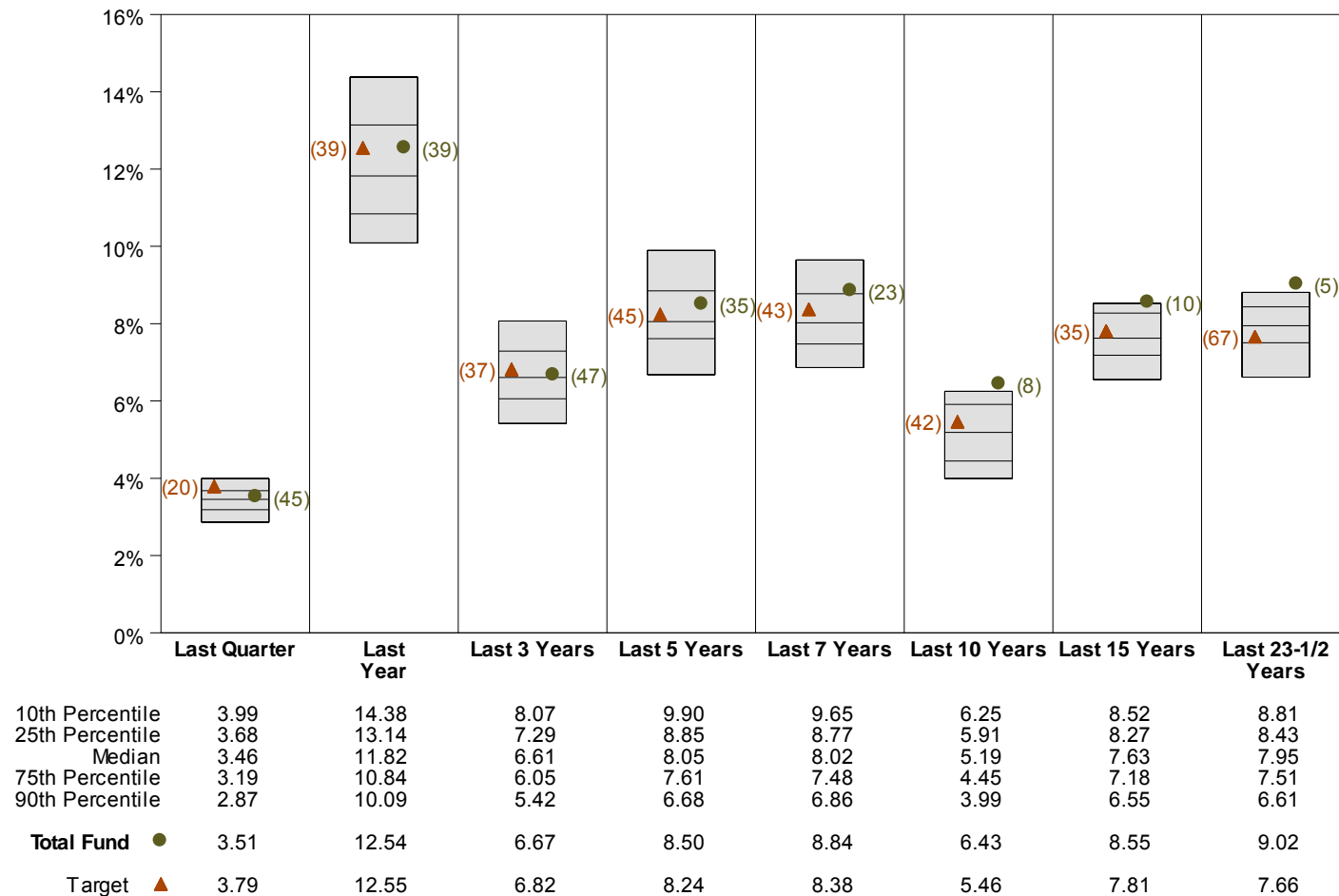
### One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	34%	32%	20.01%	18.61%	0.44%	0.07%	0.51%
Small Cap Equity	9%	8%	17.18%	20.74%	(0.33%)	(0.01%)	(0.34%)
International Large Cap	13%	14%	16.22%	19.10%	(0.37%)	(0.08%)	(0.45%)
International Small Cap	5%	5%	21.54%	21.84%	(0.01%)	(0.01%)	(0.01%)
Emerging Equity	6%	6%	21.03%	22.46%	(0.08%)	(0.06%)	(0.14%)
Domestic Fixed Income	34%	35%	0.82%	0.07%	0.29%	0.14%	0.43%
<b>Total</b>			<b>12.54%</b>	<b>= 12.55%</b>	<b>+ (0.06%)</b>	<b>+ 0.05%</b>	<b>(0.01%)</b>

# Total Fund

Performance as of September 30, 2017

Performance vs Callan Public Fund Sponsor - Mid Database (Gross)



# Total Fund

## Manager Asset Allocation

	September 30, 2017			June 30, 2017
	Market Value	Net New Inv.	Inv. Return	Market Value
<b>Consolidated Plan</b>				
<b>Domestic Equity</b>	<b>\$119,746,253</b>	<b>\$(1,582,282)</b>	<b>\$5,132,016</b>	<b>\$116,196,519</b>
<b>Large Cap</b>	<b>\$94,078,988</b>	<b>\$(1,582,282)</b>	<b>\$4,251,658</b>	<b>\$91,409,611</b>
Boston Partners	47,053,204	(1,019,591)	2,222,387	45,850,408
SSgA S&P 500	47,025,784	(562,691)	2,029,272	45,559,203
<b>Small Cap</b>	<b>\$25,667,265</b>	<b>\$0</b>	<b>\$880,357</b>	<b>\$24,786,908</b>
Atlanta Capital	25,667,265	0	880,357	24,786,908
<b>International Equity</b>	<b>\$68,769,777</b>	<b>\$0</b>	<b>\$3,443,626</b>	<b>\$65,326,150</b>
<b>International Large Cap</b>	<b>\$37,379,712</b>	<b>\$0</b>	<b>\$1,290,237</b>	<b>\$36,089,475</b>
Brandes	9,452	0	155	9,297
SSgA EAFE	11,057,499	0	574,164	10,483,335
Pyrford	26,312,761	0	715,918	25,596,843
<b>International Small Cap</b>	<b>\$14,931,309</b>	<b>\$0</b>	<b>\$1,142,980</b>	<b>\$13,788,329</b>
AQR	14,931,309	0	1,142,980	13,788,329
<b>Emerging Equity</b>	<b>\$16,458,755</b>	<b>\$0</b>	<b>\$1,010,409</b>	<b>\$15,448,346</b>
DFA Emerging Markets	16,458,755	0	1,010,409	15,448,346
<b>Fixed Income</b>	<b>\$89,319,569</b>	<b>\$0</b>	<b>\$824,534</b>	<b>\$88,495,034</b>
Metropolitan West	89,319,569	0	824,534	88,495,034
<b>Total Plan - Consolidated</b>	<b>\$277,835,599</b>	<b>\$(1,582,282)</b>	<b>\$9,400,177</b>	<b>\$270,017,704</b>

# Total Fund

## Manager Returns as of September 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Domestic Equity</b>	<b>4.46%</b>	<b>19.40%</b>	<b>11.00%</b>	<b>14.46%</b>	<b>14.79%</b>
Domestic Equity Benchmark**	4.73%	19.13%	11.14%	14.21%	14.27%
<b>Large Cap Equity</b>	<b>4.69%</b>	<b>20.01%</b>	<b>10.12%</b>	<b>14.19%</b>	<b>14.44%</b>
Boston Partners	4.89%	21.36%	9.35%	14.09%	14.65%
Russell 1000 Value Index	3.11%	15.12%	8.53%	13.20%	13.24%
SSgA S&P 500	4.49%	18.66%	10.88%	14.27%	-
S&P 500 Index	4.48%	18.61%	10.81%	14.22%	14.38%
<b>Small Cap Equity</b>	<b>3.55%</b>	<b>17.18%</b>	<b>14.65%</b>	<b>15.42%</b>	<b>16.15%</b>
Atlanta Capital	3.55%	17.18%	14.65%	15.42%	16.15%
Russell 2000 Index	5.67%	20.74%	12.18%	13.79%	13.51%
<b>International Equity</b>	<b>5.36%</b>	<b>18.40%</b>	<b>4.94%</b>	<b>7.64%</b>	<b>5.85%</b>
Custom International Benchmark***	6.27%	19.55%	4.73%	8.01%	6.12%
<b>International Large Cap</b>	<b>3.58%</b>	<b>16.22%</b>	<b>4.61%</b>	-	-
SSgA EAFE	5.48%	19.56%	5.39%	8.66%	-
Pyrford	2.80%	-	-	-	-
MSCI EAFE Index	5.40%	19.10%	5.04%	8.38%	6.38%
<b>International Small Cap</b>	<b>8.55%</b>	<b>21.54%</b>	-	-	-
AQR	8.55%	21.54%	-	-	-
MSCI EAFE Small Cap Index	7.46%	21.84%	11.13%	12.85%	9.98%
<b>Emerging Markets Equity</b>	<b>6.68%</b>	<b>21.03%</b>	<b>5.57%</b>	-	-
DFA Emerging Markets	6.68%	21.03%	5.57%	-	-
MSCI Emerging Markets Index	7.89%	22.46%	4.90%	3.99%	2.54%
<b>Domestic Fixed Income</b>	<b>0.93%</b>	<b>0.82%</b>	<b>2.82%</b>	<b>2.54%</b>	<b>3.88%</b>
Met West	0.93%	0.82%	2.82%	2.54%	3.88%
Bloomberg Aggregate Index	0.85%	0.07%	2.71%	2.06%	2.95%
<b>Total Plan</b>	<b>3.51%</b>	<b>12.54%</b>	<b>6.67%</b>	<b>8.50%</b>	<b>8.84%</b>
Target*	3.79%	12.55%	6.82%	8.24%	8.38%

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap

\*\* Domestic Equity Benchmark = 80% S&P500, 20% Russell 2000 as of 5/1/2015

\*\*\* Custom International Benchmark = MSCI EAFE until 6/30/2013, MSCI ACWI ex US until 7/31/2016, and MSCI ACWI ex US IMI thereafter

# Callan

September 30, 2017



## **Sacramento Regional Transit District Retirement Plans**

**Investment Measurement Service  
Quarterly Review**

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The following report was prepared by Callan using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); Callan computer software; Callan investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. Callan assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information providers external to Callan. Reasonable care has been taken to assure the accuracy of the Callan database and computer software. Callan does not provide advice regarding, nor shall Callan be responsible for, the purchase, sale, hedge or holding of individual securities, including, without limitation securities of the client (i.e., company stock) or derivatives in the client's accounts. In preparing the following report, Callan has not reviewed the risks of individual security holdings or the conformity of individual security holdings with the client's investment policies and guidelines, nor has it assumed any responsibility to do so. Advice pertaining to the merits of individual securities and derivatives should be discussed with a third party securities expert. Copyright 2017 by Callan.



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### September 30, 2017

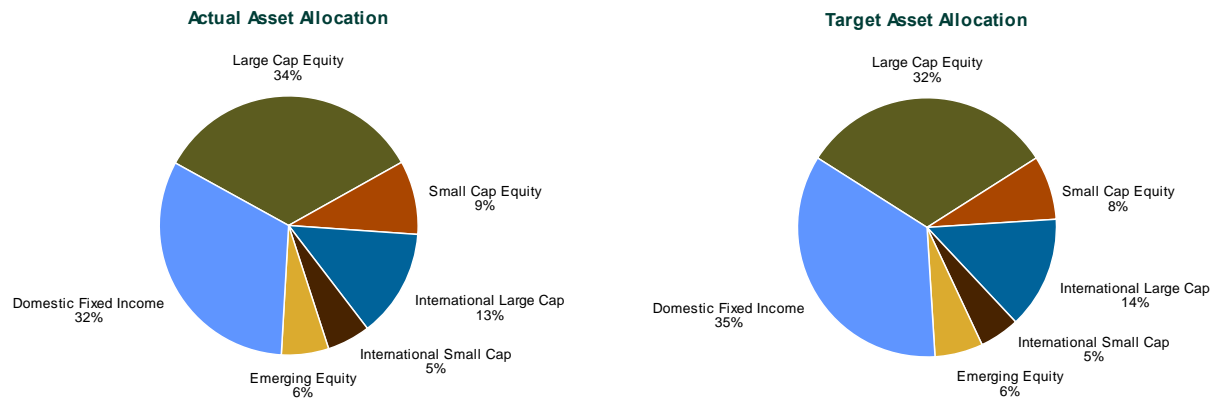
<b>Executive Summary</b>	<b>1</b>
<b>Capital Markets Review</b>	<b>3</b>
<b>Combined Plan</b>	
Actual vs Target Asset Allocation	20
Quarterly Total Plan Attribution	21
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Total Fund Performance	24
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Asset Growth Summary	27
Investment Manager Performance	28
<b>Domestic Equity</b>	
Domestic Equity	34
Large Cap	38
SSgA S&P 500	42
Boston Partners	46
Atlanta Capital	55
<b>International Equity</b>	
International Equity	65
SSgA EAFE	70
Pyrford	76
AQR	84
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# Sacramento Regional Transit District

## Executive Summary for Period Ending September 30, 2017

### Asset Allocation



### Performance

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Total Plan</b>	<b>3.51%</b>	<b>12.54%</b>	<b>6.67%</b>	<b>8.50%</b>	<b>8.84%</b>
Target*	3.79%	12.55%	6.82%	8.24%	8.38%

### Recent Developments

This is the first full quarter of performance for Pyrford as the replacement for JP Morgan EAFE Plus

### Organizational Issues

N/A

### Manager Performance

Manager	Peer Group Ranking		
	Last Year	Last 3 Years	Last 7 Years
Boston Partners	22	39	19
Atlanta Capital	81	16	23
AQR	[63]	[41]	[44]
Pyrford	[99]	[93]	[58]
DFA	81	74	[74]
MetWest	88	93	80

*Brackets indicate performance linked with manager's composite*

### Watch List

N/A

### Items Outstanding

N/A

\*Current quarter target = 35% Bloomberg Barclays Aggregate Index, 32% S&P 500 Index, 8% Russell 2000 Index, 14% MSCI EAFE Index, 5% MSCI EAFE Small Cap Index, and 6% MSCI Emerging Markets Index.



Third Quarter 2017

## Why So Sad?

### ECONOMY

**2** The disconnect sharpened in the quarter between the state of the economy, which is pretty good, and sentiment, which is not so good. Global geopolitical upheaval dominates the news cycle. But the world economy is in much better shape than this sentiment might suggest.

## Managing Risk While Hunting for Returns

### FUND SPONSOR

**4** Endowments and foundations performed best over the one-year period ending with the third quarter, while Taft-Hartley plans surpassed other groups over the past three- and five-year periods. Corporate plans did best over a 10-year period.

## Up, Up, Up, and Away for Global Stocks

### EQUITY

**6** The **S&P 500**, **Russell 2000**, and **Nasdaq Composite** all hit record highs on the final trading day of the quarter. Non-U.S. developed equity outperformed the U.S. for the third consecutive quarter; emerging markets outperformed developed ones, also for the third straight quarter.

## Healthy Risk Appetite Drove Yields

### FIXED INCOME

**9** Global fixed income markets generally performed well in the third quarter. Moderate growth and inflation kept long-term rates low and range-bound in the U.S. Rates were also low outside the U.S., but dollar weakness boosted returns, especially for emerging market debt.

## Best Location? Europe These Days

### REAL ESTATE

**11** The **NCREIF Property Index** notched 35 straight quarters of gains, while the **NCREIF Open End Diversified Core Equity Index** rebounded from last quarter's seven-year low. Europe was the strongest-performing region, with the **FTSE EPRA/NAREIT Europe Index** up 4.8%.

## PE Market Sees 'Golden Era'

### PRIVATE EQUITY

**13** Low volatility and gently rising markets fostered ongoing "Golden Era" conditions in the private equity market. Fundraising is on pace to best last year's post-GFC high; buyout and venture investments slowed slightly but dollar volume remained healthy.

## Kickin' It with Risk

### HEDGE FUNDS

**14** The **Credit Suisse Hedge Fund Index** rose 1.8% in the quarter, while the median manager in the *Callan Hedge Fund-of-Funds Database* advanced 2.0%. The median *Callan Long/Short Equity FoF* (+3.1%) handily beat the *Callan Absolute Return FOF* (+1.8%).

## Strongest First Half in DC Index History

### DEFINED CONTRIBUTION

**15** The **Callan DC Index™** rose 3.1% during the second quarter and is now up 7.9% year-to-date—its strongest first-half performance since its 2006 inception. Still, the Index trailed the typical Age 45 Target Date Fund, up 3.7% in the second quarter and 9.4% in the first half.

## Broad Market Quarterly Returns

**U.S. Equity**  
Russell 3000

**+4.6%**

**Non-U.S. Equity**  
MSCI ACWI ex USA

**+6.2%**

**U.S. Fixed Income**  
Bloomberg Barclays Agg

**+0.8%**

**Non-U.S. Fixed Income**  
Bloomberg Barclays GBI ex US

**+2.5%**

Sources: Bloomberg Barclays, MSCI, Russell Investment Group

# Why So Sad?

ECONOMY | Jay Kloepfer

The disconnect sharpened in the third quarter of 2017 between the state of the underlying economy, which is pretty good, and sentiment, which is not so good, teetering on downright gloomy.

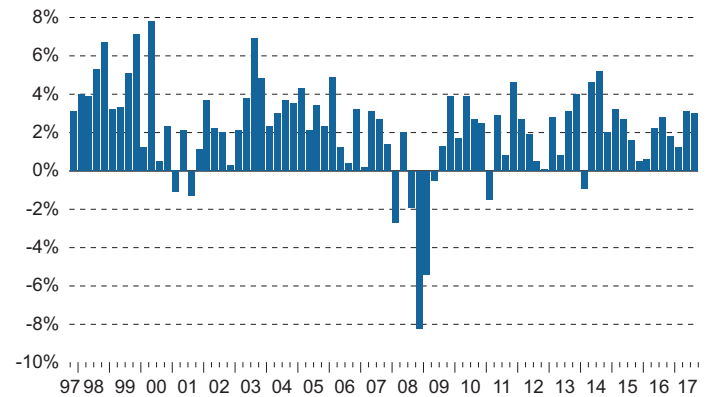
Geopolitical upheaval across the globe dominated the news cycle, feeding anxieties about the future of monetary and fiscal policy, taxes, trade, and conflict. Tension remained high with North Korea and continued to escalate with Russia. Richly priced capital markets spurred concerns about an “inevitable” correction. Comparisons to the pre-Global Financial Crisis (GFC) period in 2007, to before the Dot-Com Bubble in 2000, and particularly to 1987 before the 20% one-day drop in the U.S. stock market abound. Then two hurricanes of historic proportions slammed the Caribbean, the Gulf of Mexico, and the U.S. mainland within a couple weeks of each other in September.

Stepping back from the conjecture and hand-wringing, the state of the global economy as we head into the fourth quarter of 2017 is much better than this general sentiment might suggest. Investors are certainly less concerned about the economy than the news would lead us to believe. The U.S. economy has actually gathered momentum as 2017 progressed. After a relatively weak first quarter (1.4% growth), GDP was revised up to 3.1% in the second quarter and grew an astounding 3.0% in the third quarter *after* accounting for the impact of Harvey and Irma. Without the hurricanes, real GDP would likely have seen a robust gain in excess of 4%, perhaps as strong as 4.5%. Initial estimates for fourth quarter growth are equally lofty.

What gives? Is this growth spurt the last, exuberant gasp before the economy collapses from exhaustion? First and foremost, we should recall that expansions do not die of old age; they typically expire under the weight of imbalances in spending versus income, a run-up in debt, a build-up in inventory for demand that wanes, or over-building for economic activity that doesn't materialize. These imbalances are obvious in hindsight but difficult to spot in the moment. The current cycle is particularly hard to pin down; the expansion may be getting long in the tooth

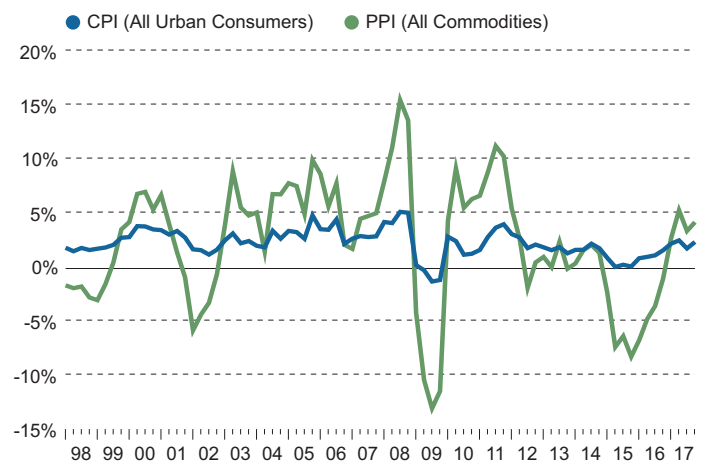
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

after more than seven years, but the GDP gains since the GFC (2.2% per year) are substantially lower than those enjoyed in previous recoveries (above 3%). Consumers spent the first several years following the GFC deleveraging, whether voluntarily or involuntarily. Businesses have been persistently reluctant to invest in capital, except perhaps for equipment replacement and technology.

Consumer spending is finally leading GDP growth, fueled by tight labor markets, a long-awaited nudge upward in wages and salaries, and in a perhaps less sanguine development, a renewed interest in and ability to borrow. While mortgage debt is still more difficult to obtain than pre-GFC, consumer credit as a percentage of disposable income has regained its pre-GFC peak of 24% and then some, reaching past 26% in the third quarter of 2017. Business spending is also finally accelerating after years of fits and starts. The ISM Report on Business for September shows strength across almost all measures of manufacturing and non-manufacturing activity. The Purchasing Managers' Index came in at 58.8 in August and 60.8 in September, well above 50, the dividing line between expansion and contraction. The new orders, production, and employment indices are even stronger, and coupled with a sharp decline in inventories following the hurricanes, activity is poised to be even stronger in the fourth quarter.

The sustainability of the 2017 burst in growth will certainly fall under scrutiny. Hopes for near-term fiscal stimulus in the U.S. are diminished, and tight labor markets suggest limited potential for further growth from the existing set of labor and capital inputs available in the U.S. economy.

Outside the U.S., euro zone GDP for the second quarter was revised upwards to 2.3% from 1.7%, and preliminary data support continued improvement in the third quarter. The long-awaited response to the stimulus appears to have arrived. In China, annual growth increased by 6.9% in the second quarter, identical to the first quarter and slightly ahead of expectations. Initial data on industrial production and investment in fixed

### The Long-Term View

Index	2017 3rd Qtr	Periods ended Dec. 31, 2016			
		Year	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	4.57	12.74	14.67	7.07	9.29
S&P 500	4.48	11.96	14.66	6.95	9.15
Russell 2000	5.67	21.31	14.46	7.07	9.69
Non-U.S. Equity					
MSCI ACWI ex USA	6.16	4.50	5.00	0.96	–
MSCI Emerging Markets	7.89	11.19	1.28	1.84	–
MSCI ACWI ex USA Small Cap	6.90	3.91	7.74	2.89	–
Fixed Income					
Bloomberg Barclays Agg	0.85	2.65	2.23	4.34	5.63
90-Day T-Bill	0.26	0.33	0.12	0.80	2.71
Bloomberg Barclays Long G/C	1.53	6.67	4.07	6.85	7.58
Bloomberg Barclays GI Agg ex US	2.48	1.49	-1.39	2.44	4.73
Real Estate					
NCREIF Property	1.70	7.97	10.91	6.93	8.63
FTSE NAREIT Equity	0.94	8.52	12.01	5.08	11.13
Alternatives					
CS Hedge Fund	1.81	1.25	4.34	3.75	–
Cambridge PE*	--	9.26	12.77	9.40	15.39
Bloomberg Commodity	2.52	11.77	-8.95	-5.57	2.55
Gold Spot Price	3.42	8.63	-5.97	6.08	4.82
Inflation – CPI-U	0.76	2.07	1.36	1.81	2.26

\*Most recent quarterly data not available.

Sources: Bloomberg Barclays, Bloomberg, Credit Suisse, FTSE, MSCI, NCREIF, Russell Investment Group, Standard & Poor's, Thomson Reuters/Cambridge, Bureau of Economic Analysis.

assets released in July and August are consistent with a third quarter slowdown. Robust gains in developed non-U.S. and emerging equity markets are fueled by renewed optimism, or at least reduced skepticism, about growth prospects in many markets around the globe.

### Recent Quarterly Economic Indicators

	3Q17	2Q17	1Q17	4Q16	3Q16	2Q16	1Q16	4Q15
Employment Cost–Total Compensation Growth	2.5%	2.4%	2.4%	2.2%	2.3%	2.3%	1.9%	2.0%
Nonfarm Business–Productivity Growth	1.6%*	1.5%	0.1%	1.3%	2.5%	0.8%	-1.2%	-2.6%
GDP Growth	3.0%	3.1%	1.2%	1.8%	2.8%	2.2%	0.6%	0.5%
Manufacturing Capacity Utilization	75.2%	75.7%	75.4%	75.1%	74.9%	75.1%	75.4%	75.4%
Consumer Sentiment Index (1966=100)	95.1	96.4	97.2	93.2	90.3	92.4	91.5	91.3

\*Estimate.

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan.

# Managing Risk While Hunting for Returns

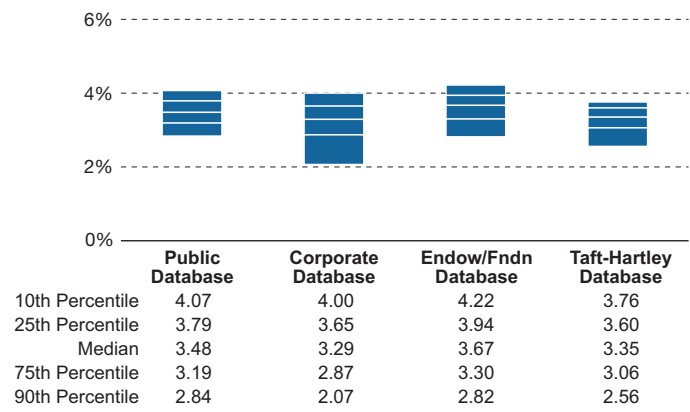
## FUND SPONSOR

Low interest rates and low return expectations continued to drive strategic allocation discussions for fund sponsors. Many felt compelled to take on market risk to reach return targets. Sponsors are now examining if there is anything they can do to tamp down the risk within their large growth allocation short of actually reducing it.

For instance, to offset risk in a crisis situation, plans have examined strategies including Treasury bond allocations, momentum, multi-asset class (MACs), and even gold.

These discussions, as we have noted before, turn diversification on its head: Investors are looking for investments with similar underlying return factors (in this case equity) while seeking at least some diversification to smooth the ride within that large growth allocation. A broader growth allocation can then consider investments like high yield, convertibles, low volatility equity, hedge funds, MACs, and option-based strategies. This approach also allows for new strategies to be brought into the fold, based on prospective diversification or return enhancement. The broadening of growth assets often leads

## Callan Fund Sponsor Returns for the Quarter

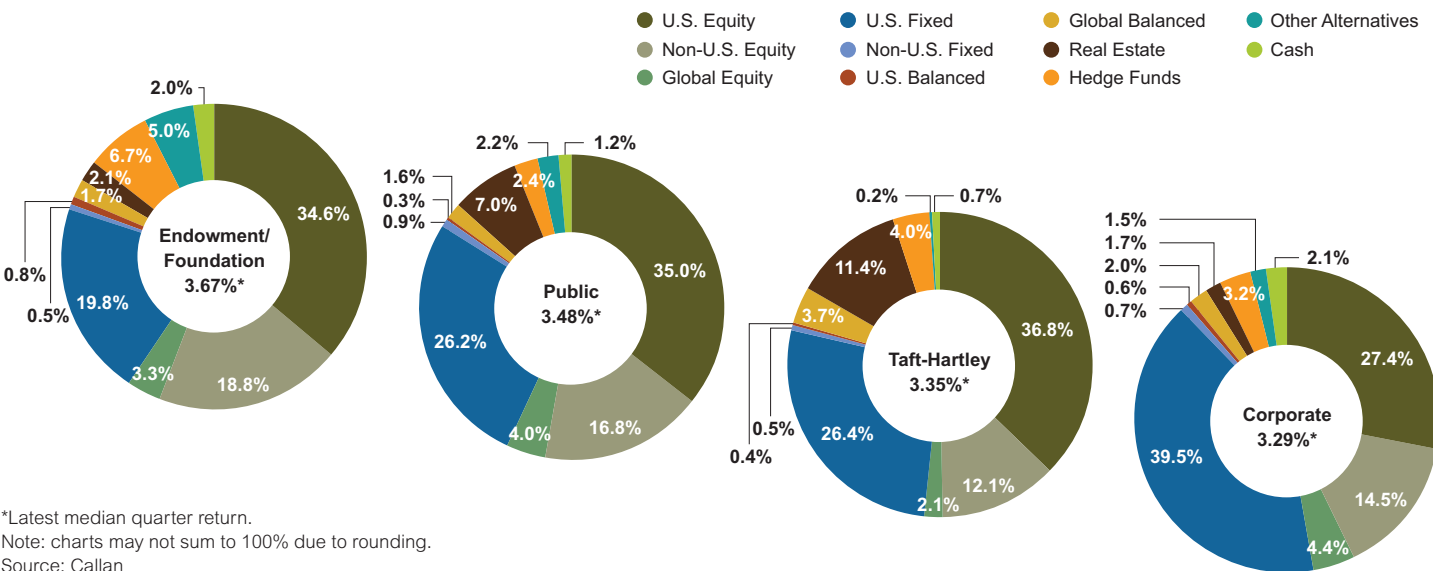


Source: Callan

to a sharper focus on refining fixed income exposure to gain a “purer” exposure to interest rates.

In addition, the active/passive discussion continues to loom large. The argument to retain active to protect in a down market and be nimble in a volatile, low-return environment is compelling, but plan sponsors are weary of historical

## Callan Fund Sponsor Average Asset Allocation





underperformance in actively managed equity. And tied to that discussion is the use of passive management to control costs.

For defined contribution (DC) plans, regulations, lawsuits, and implementation are driving factors for the decision-making process. Some of this conversation has led to negotiating a reduction of fees for the plans, in some cases to a significant extent. Heightened fee sensitivity and litigation have resulted in little traction for non-traditional asset classes such as liquid alternatives.

Target date funds (TDFs) dominate asset flows in DC plans; they now account for almost 30% of DC assets, according to the Callan DC Index™. TDFs have received an average of 71% of flows into DC plans over the last three years.

Over the last five years, Callan has seen several trends in asset allocation by different types of fund sponsors:

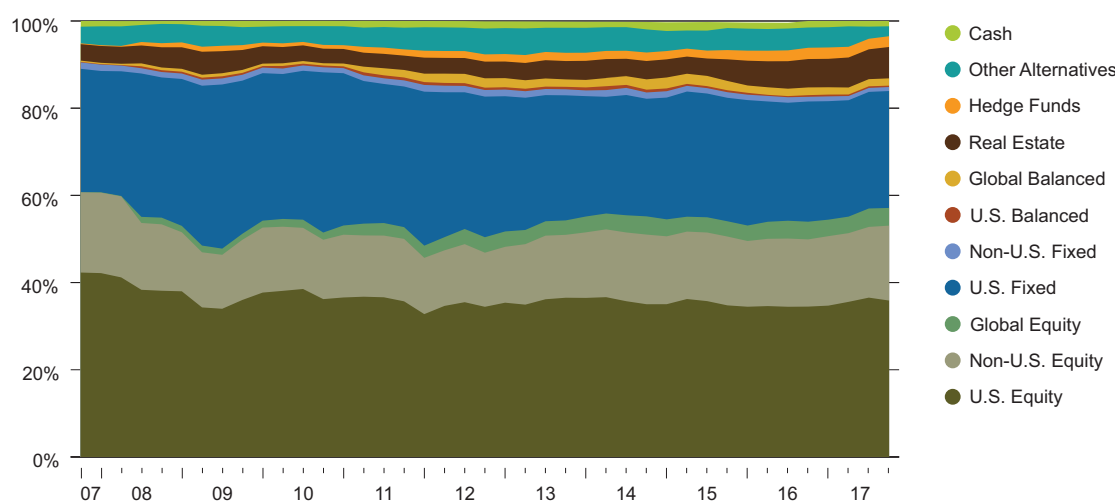
- Corporate funds: The range of U.S. fixed income allocations has widened, as these sponsors are in different stages of efforts to de-risk.

- Public funds: Many have increased their allocation to non-U.S. equity and real estate at the expense of fixed income. Capital market return expectations have created a difficult environment for total return investors.
- Endowments and foundations: They continue to move assets from fixed income to asset classes with expectations for higher returns. Global equity, non-U.S. equity, and real estate have all benefited from this shift.

The performance by fund sponsors continued to be robust. Over the one-year ending with the third quarter, only corporate sponsors did not exceed the 10.9% return of a quarterly rebalanced 60% S&P 500/40% Bloomberg Barclays Aggregate portfolio. Endowments and foundations performed best over that one-year period, while corporate plans did best over a 10-year period. Taft-Hartley plans were the best-performing group over the past three and five years, partially due to a larger home-country bias.

## Callan Public Fund Database Average Asset Allocation

(10 Years)



Source: Callan. Callan's database includes the following groups: public defined benefit, corporate defined benefit, endowments/foundations, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

# Global Equity

## U.S. Stocks: The 'Everything Rally' Marched On

**+4.6%**

RUSSELL 3000

The Goldilocks environment ("Not too hot, not too cold, but just right") and investor complacency continued to keep volatility at multi-decade lows and propel stock markets to new highs, in spite of escalating tensions with North Korea, several severe natural disasters, and uncertainty around the prospects for tax reform and other U.S. domestic agenda items. The **S&P 500 Index**, **Russell 2000 Index**, and **Nasdaq Composite Index** all hit record highs on the final trading day of the quarter. It was the Nasdaq's 50th record close this year.

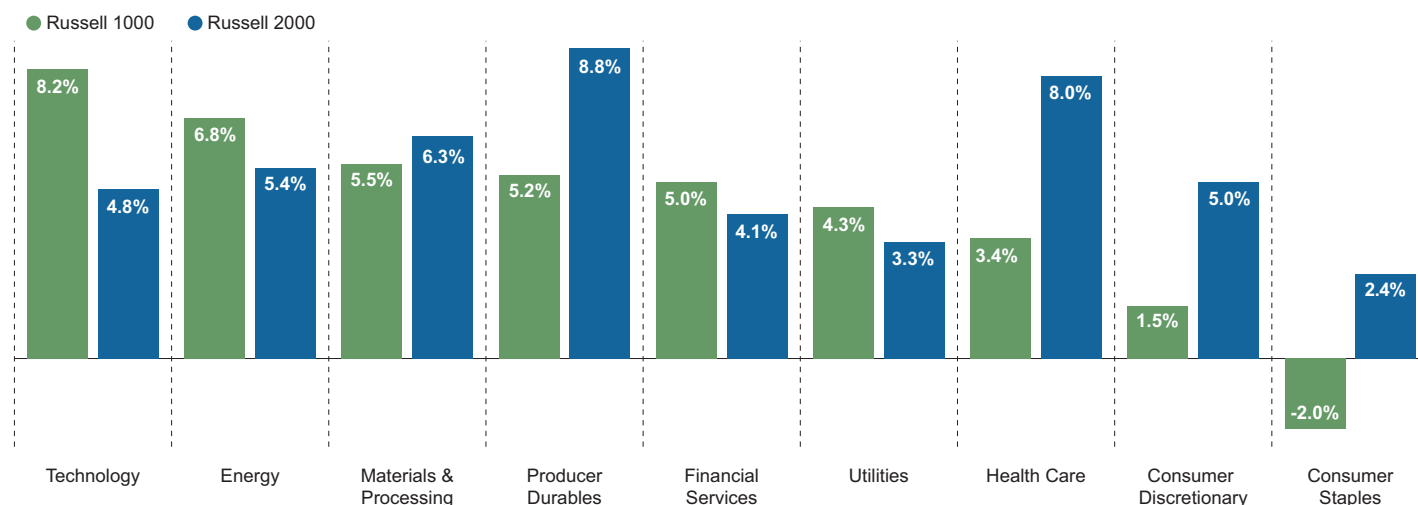
Stocks, bonds, and commodities alike rewarded investors in what's been coined the "everything rally," marked by its surprisingly low volatility. Even cash is up from its dismal 0% days and posted a +0.3% quarterly result. Investors' attention remained focused on the hopeful promise of tax reform along with the generally upbeat picture of the U.S. economy. But contrarians question where longer-term alpha can be found amid stretched equity valuations.

The Tech (+8.6%) and Energy (+6.8%) sectors led the S&P 500 (+4.5%). The globally dominant Tech names (the so-called "FAAMG" stocks, or Facebook, Amazon, Apple, Microsoft, and Google) continued to drive results in the sector, which now accounts for 23% of the S&P 500 and 38% of the **Russell 1000 Growth Index**. Tech alone has accounted for approximately 40% of the S&P 500's return year-to-date, with key drivers being strong earnings reports, increasing market share, and product innovation. Record-high valuations for several companies raised concern over their influence on the overall performance of the Index should a correction occur.

The Energy sector continued to see signs of incremental improvement during the quarter due to a backdrop of improving supply and demand. Consumer Staples (-1.3%) was the sole sector to deliver a negative result as momentum-oriented stocks and sectors garnered favor.

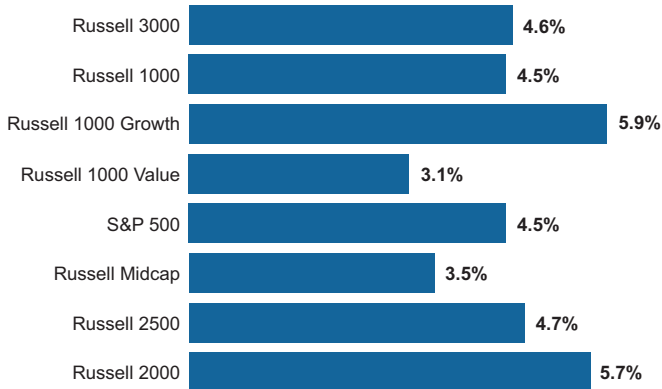
Small cap stocks outperformed large cap. In addition, growth outperformed value (Russell 1000 Growth: +5.9% vs. **Russell 1000 Value**: +3.1%; **Russell 2000 Growth**: +6.2% vs. **Russell 2000 Value**: +5.1%). Biotech (+14.5%) and a surge in small

## Quarterly Performance of Select Sectors



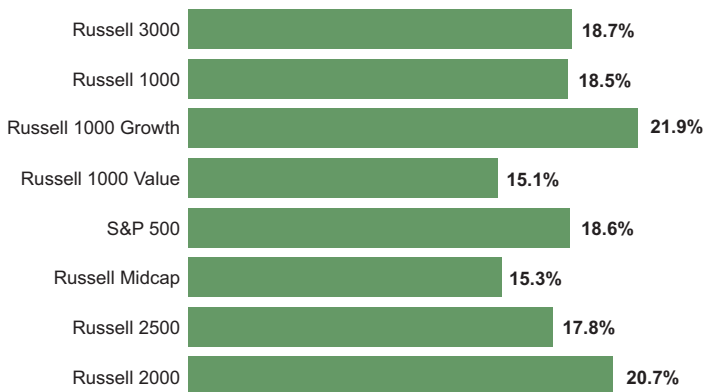
Source: Russell Investment Group

### U.S. Equity: Quarterly Returns



Sources: Russell Investment Group and Standard & Poor's

### U.S. Equity: One-Year Returns



Sources: Russell Investment Group and Standard & Poor's

cap value on tax reform news in September bolstered small cap stocks during the quarter. Biotech benefited from the easing of pricing risks as well as the FDA's approval of genetics-based therapeutics.

From a factor perspective, momentum (+27.5% YTD) remained the top performer while defensive (+8.5% YTD) was

the laggard. Investor behavior has had a meaningful influence on results as investors tend to project their optimism across the broad market and chase momentum during periods of strength.

### Global Stocks: Stronger Outside the U.S.

**+6.2%**

MSCI ACWI ex USA

Non-U.S. developed economies continued to gain traction. Second quarter GDP growth in the euro zone was 2.3% (year-over-year) with consumer confidence and demand both showing strength. The euro gained ground versus the U.S. dollar and the pound continued to strengthen on hawkish comments from the Bank of England. Outside of Europe, Japan's economy continued to slowly recover; second quarter GDP growth was 2.5% (annualized). While this was lower than expected, the economy has now expanded for six consecutive quarters.

Non-U.S. developed equity (**MSCI World ex USA: +5.6%**) outperformed the U.S. for the third consecutive quarter as the European market (**MSCI Europe: +6.5%**) continued to post positive economic data and corporate earnings growth with some signs of political stability.

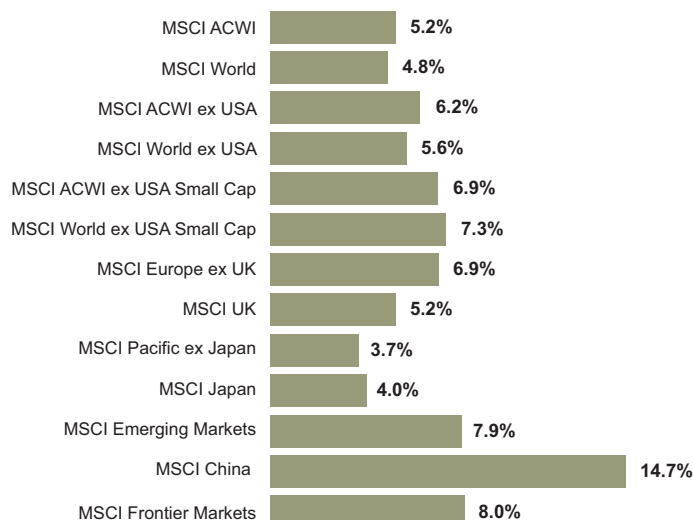
The dollar's losses against the euro stemmed from an upside surprise with European growth and market-friendly outcomes in European elections. Economically sensitive sectors outperformed defensive securities.

All sectors generated positive returns. Energy and Materials were the top two performers as a result of higher oil and commodity prices. WTI and Brent prices surged by 12% and 20%, respectively, driven by favorable supply and demand dynamics. Copper rallied 9% due to tightening supply and positive economic data from China.

Value outpaced growth as economically sensitive sectors posted strong quarterly results.

## Non-U.S. Equity: Quarterly Returns

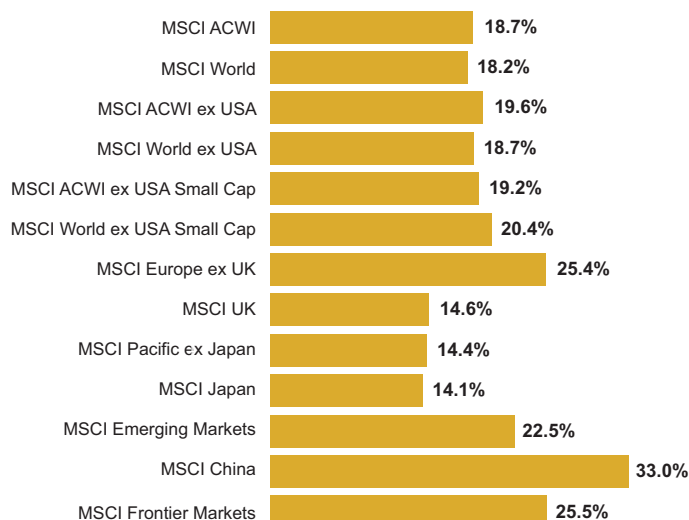
(U.S. Dollar)



Source: MSCI

## Non-U.S. Equity: One-Year Returns

(U.S. Dollar)



Source: MSCI

## Emerging Markets: Upbeat Signs Across the Board

**+7.9%**

MSCI EM

Emerging markets topped developed markets for the third consecutive quarter, fueled by a soft dollar, synchronized global growth, and strong

oil and commodity prices. Brazil was the best-performing country within emerging markets given the hope of achieving fiscal reforms to spur economic growth. China continued to fare well with GDP growth of 6.9% exceeding expectations; the Chinese Tech and Real Estate sectors were top performers.

All sectors within emerging markets posted positive returns, led by economically sensitive sectors such as Real Estate, Energy, Materials, and Financials.

Brazilian and Russian banks surged during the quarter, spurred by rising oil and commodity prices and improving lending conditions.

Despite a strong showing by value factors, growth and momentum dominated the market given the returns of large cap Asian tech companies, helped in part by the demand for mobility and connectivity.

## Non-U.S. Small Cap: Mixed Messages

**+6.9%**

MSCI ACWI ex USA SC

Developed non-U.S. small cap (**MSCI World ex USA Small Cap: +7.3%**) outperformed large cap in the risk-on market environment marked by

improving economic activity in Europe. The top three performing countries were Germany (+17.0%), Norway (+16.4%), and Italy (+13.5%). All sectors posted positive returns, led by Energy and Technology.

Small cap (**MSCI Emerging Markets Small Cap: +5.6%**) lagged large cap in emerging markets due to the strong performance of large cap Asian technology companies. The top three performing countries were Peru (+42.8%), Brazil (+31.8%), and Chile (+19.8%), all benefiting from higher oil and commodity prices.

Growth outperformed value in developed small cap, propelled by optimism surrounding European growth. Conversely, value outpaced growth in emerging market small cap, supported by positive oil and commodity prices.

# Global Fixed Income

## U.S. Bonds: Low Volatility Drove Returns

**+0.8%**

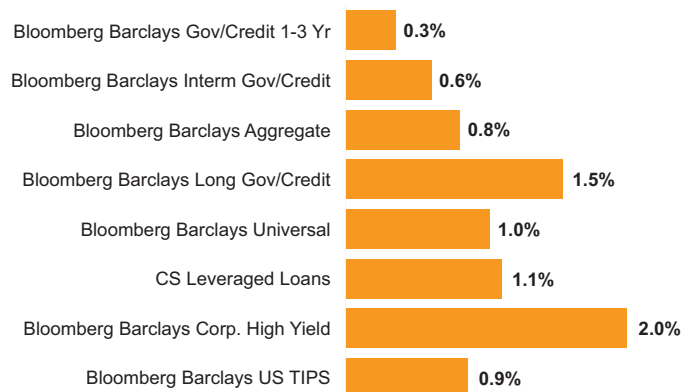
BB AGGREGATE

Yields rose modestly, particularly on the short end of the U.S. Treasury yield curve. The 10-year Treasury yield touched 2.00% during the quarter on geopolitical risks related to North Korea, but ended the quarter at 2.33%. Moderate growth and inflation kept long-term rates low and range-bound. Volatility in fixed income markets (as well as equities) sat at near historic lows; the overall risk appetite remained strong. And in general, lower-rated credits again outperformed investment grade.

The **Bloomberg Barclays U.S. Aggregate Bond Index** was up 0.8% in the quarter. The **Bloomberg Barclays U.S. Corporate Bond Index** rose 1.3%. High yield corporates fared even better, with the **Bloomberg Barclays U.S. Corporate High Yield Bond Index** up 2.0%. TIPS rebounded from their underperformance in the previous quarter.

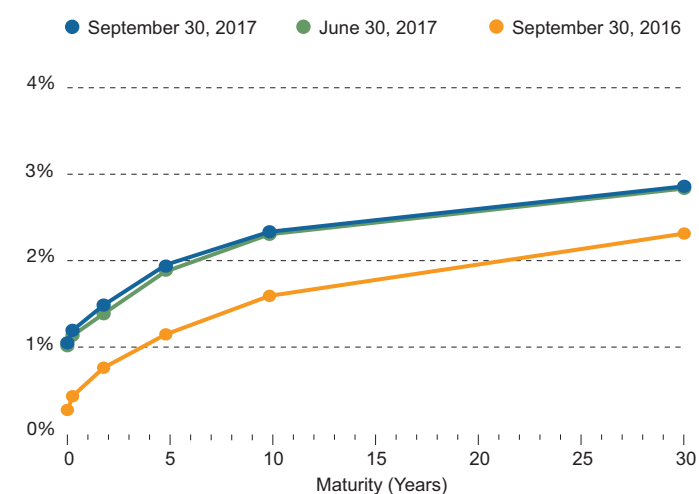
The **Bloomberg Barclays U.S. TIPS Index** rose 0.9% and the 10-year breakeven spread (the difference between nominal and real yields) rose to 1.84% as of quarter-end from 1.73% at the end of the second quarter.

## U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and Credit Suisse

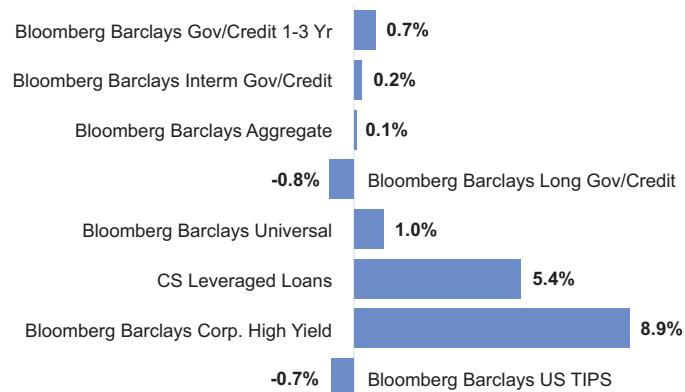
## U.S. Treasury Yield Curves



Source: Bloomberg

Corporate credit spreads tightened on strong demand and robust corporate earnings. Financials and Utilities were the leading sectors during the quarter. High yield credit continued to perform well, aided by the hunt for yield. The upward trend in earnings along with corporate discipline has led to the highest rating agency upgrade-downgrade ratio since 2013.

## U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and Credit Suisse

## GLOBAL FIXED INCOME (Continued)

The municipal bond market also performed well; the **Bloomberg Barclays Municipal Bond Index** returned 1.1% for the quarter and the shorter duration 1-10 Year Blend Index was up 0.7%.

### Global Bonds: Many Reasons to Cheer

**+2.5%**

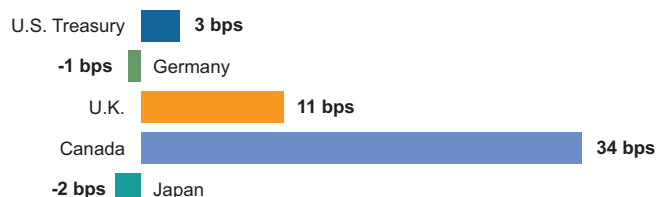
BB GBL AGG EX US

Rates were also steady overseas, though dollar weakness boosted returns. The **Bloomberg Barclays Global Aggregate Index** returned +1.8% (unhedged) versus +0.8% for the hedged version. Emerging market debt posted solid returns. The **JPM EMBI Global Diversified Index** (\$ denominated) was up 2.6%. Gains were broad-based with only beleaguered Venezuela (-11%) down. The local currency **JPM GBI-EM Global Diversified**

**Index** increased 3.6%. Returns were mixed for this index, with Brazil (+11%) being the best performer and Argentina's first-ever local bonds (-4%) being the worst on worries over the success of reforms.

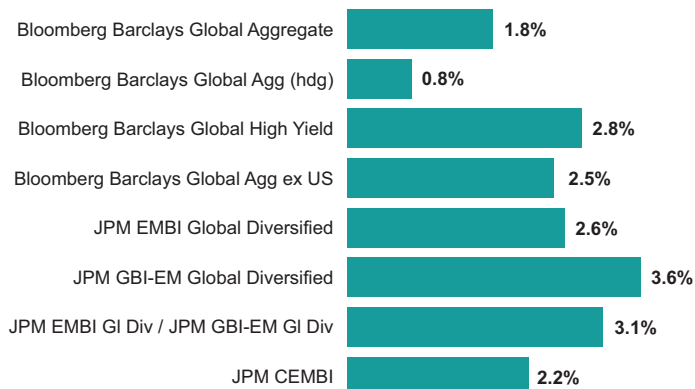
### Change in 10-year Global Government Bond Yields

2Q17 to 3Q17



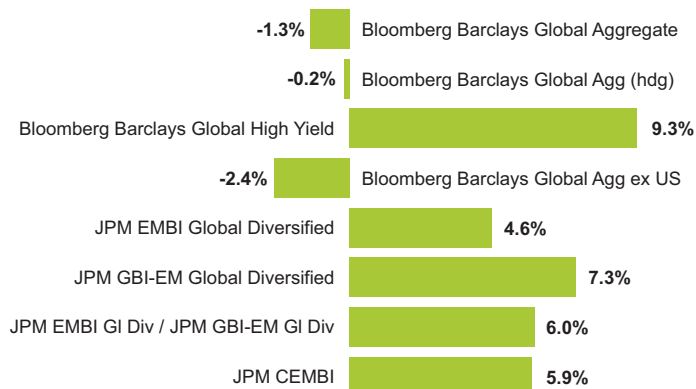
Source: Bloomberg Barclays

### Non-U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg Barclays and JP Morgan

### Non-U.S. Fixed Income: One-Year Returns



Sources: Bloomberg Barclays and JP Morgan

# Europe Continues as Best-Performing Region

REAL ESTATE | Kevin Nagy

The **NCREIF Property Index** advanced 1.7% during the third quarter (1.1% from income and 0.6% from appreciation). This marked the 35th consecutive quarter of positive returns for the Index. Appreciation return resumed its decreasing trend after an increase during the second quarter.

Industrial (+3.3%) was the best-performing sector for the sixth consecutive quarter followed by Hotel (+2.3%), Multi-Family (+1.7%), and Office (+1.4%); Retail (+1.2%) was the worst performer.

The West was the strongest region for the fourth quarter in a row, increasing 2.2%, and the East brought up the rear with a +1.3% return.

Transaction volume increased to \$11.8 billion, up 53% from the second quarter and 22% from the third quarter of 2016. Appraisal capitalization rates fell 8 basis points to 4.39%. Transaction capitalization suffered a steeper decline, falling 83 bps to 5.26%. The spread between appraisal and transaction rates decreased to 87 bps.

Occupancy rates fell to 93.3%. Industrial and Retail occupancy rates increased slightly while Apartment and Office rates decreased.

The **NCREIF Open End Diversified Core Equity Index** rose 1.9% (1.1% from income and 0.8% from appreciation), a 17 bps increase from the second quarter. Appreciation return increased by 18 bps from the second quarter's seven-year low.

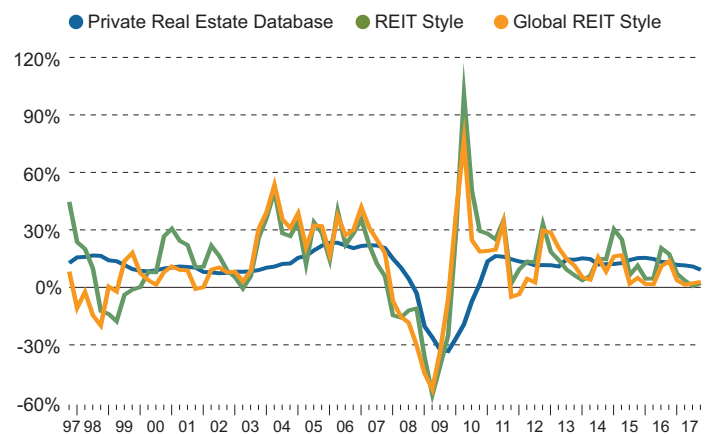
Global real estate investment trusts (REITs), tracked by the **FTSE EPRA/NAREIT Developed REIT Index** (USD), outperformed

U.S. REITs and posted a 1.8% return. U.S. REITs, as measured by the **FTSE NAREIT Equity REITs Index**, advanced 0.9% for the quarter.

In the U.S., REITs started the quarter with a strong July but then surrendered most of the gains with poor showings in August and September. Sectors experiencing strong secular demand, such as Industrial (+6.5%) and Data Centers (+5.2%), were the best performers as the continued rise of e-commerce and cloud storage provided ample tailwind. Hotels (+2.8%) and Self-Storage (+4.7%) also did well, buoyed by expectations of inflation and rising interest rates. Health Care (-5.4%) was the worst-performing sector.

Europe, as represented by the **FTSE EPRA/NAREIT Europe Index**, was again the strongest-performing region, rising 4.8% in U.S. dollar terms. Strong, diversified growth across the majority of the region's economies was the main driver of positive returns. The region largely shrugged off destabilizing political events such as the Catalan independence referendum.

## Rolling One-Year Returns



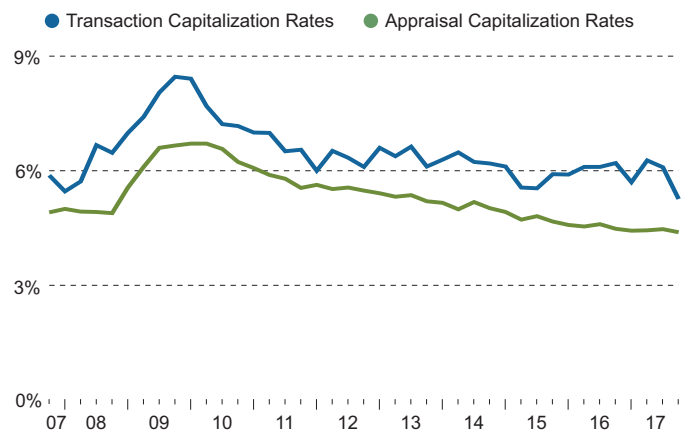
Source: Callan

REAL ESTATE (Continued)

For the second quarter in a row, the Asia-Pacific region outperformed the U.S. but underperformed Europe. Hong Kong

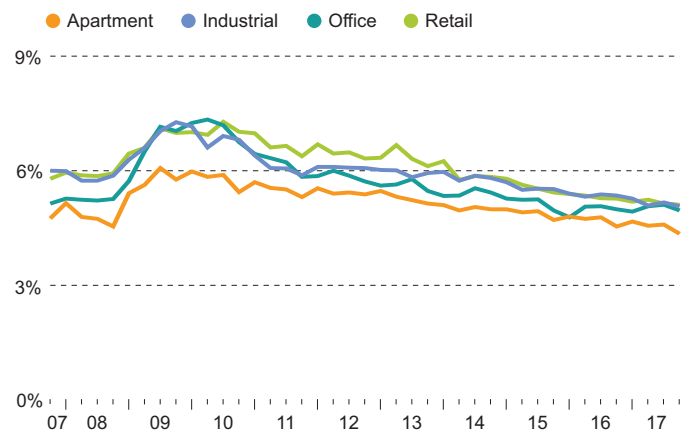
provided the best regional performance while Japan lagged behind, hurt by a strengthening yen.

NCREIF Transaction and Appraisal Capitalization Rates



Source: NCREIF  
Note: Transaction capitalization rate is equal weighted.

NCREIF Capitalization Rates by Property Type



Source: NCREIF  
Note: Capitalization rates are appraisal-based.



# Low Volatility + Rising Markets = Strong Liquidity

## PRIVATE EQUITY | Gary Robertson

Third quarter private equity partnership commitments totaled \$84.0 billion, with 210 new partnerships formed, according to *Private Equity Analyst*. The number of funds raised decreased 34% from 319 in the second quarter, but the dollar volume dipped only 2% from \$85.0 billion. Apollo IX is the largest fund raised so far in 2017, holding a \$24.6 billion final close in the third quarter—and it is the largest buyout fund ever raised.

Investments by buyout funds into companies totaled 446 deals, down 12% from 504 in the prior quarter, according to *Buyouts* newsletter. The announced total volume was \$51 billion, up 6% from \$48 billion in the second quarter. The quarter's largest deal was the \$7.5 billion take-private of Panera Bread by JAB, a family-owned holding company. Sixteen deals with announced values of \$1 billion or more closed in the quarter.

New investments in venture capital companies totaled 1,706 rounds of financing with \$21.5 billion of announced value, according to the National Venture Capital Association (NVCA). The number of rounds declined 21% from the 2,164 in the second quarter, and announced dollar value decreased 6% from \$22.9 billion.

*Buyouts* reported that there were 446 private M&A exits of buyout-backed companies, with 43 deals disclosing values totaling

### Funds Closed January 1 to September 30, 2017

Strategy	No. of Funds	Amt (\$mm)	Percent
Venture Capital	382	29,109	12%
Buyouts	272	167,111	67%
Subordinated Debt	52	22,627	9%
Distressed Debt	17	9,601	4%
Secondary and Other	31	9,869	4%
Fund-of-funds	85	11,122	4%
<b>Totals</b>	<b>839</b>	<b>249,439</b>	<b>100%</b>

Source: Private Equity Analyst  
Figures may not total due to rounding.

\$50.8 billion. The M&A exits were down 12% from the prior quarter's 504, but the announced value increased 6% from \$48.1 billion. Buyout-backed IPOs in the third quarter fell to only one raising \$43 million, a sharp decrease compared to last quarter's seven IPOs (a two-year high), raising an aggregate \$2.0 billion.

Venture-backed exits (both private sales and IPOs) totaled 182 transactions, and disclosed value totaled \$11.2 billion. The number of exits rose 2% from the second quarter's 179, and the announced dollar volume increased 9% from \$10.3 billion.

Please see our upcoming issue of *Private Markets Trends* for more in-depth coverage.

### Private Equity Performance Database (%) (Pooled Horizon IRRs through June 30, 2017\*)

Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	2.01	8.79	11.89	14.74	9.37	8.32	19.63
Growth Equity	3.69	14.51	9.51	12.74	9.94	11.84	13.20
All Buyouts	6.51	18.69	10.43	14.36	8.71	13.86	12.55
Mezzanine	4.00	11.72	8.63	9.91	8.73	9.47	8.79
Distressed	4.30	17.77	8.19	11.95	9.15	11.29	11.36
<b>All Private Equity</b>	<b>4.96</b>	<b>15.79</b>	<b>10.35</b>	<b>13.94</b>	<b>8.98</b>	<b>12.19</b>	<b>13.15</b>
S&P 500	3.09	17.90	9.61	14.63	7.18	8.35	7.15
Russell 3000	3.02	18.51	9.10	14.58	7.26	8.66	7.44

Private equity returns are net of fees.

Sources: Standard & Poor's and Thomson Reuters/Cambridge

\*Most recent data available at time of publication.

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of *Capital Market Review* and other Callan publications.

# Kickin' It with Risk

## HEDGE FUNDS | Jim McKee

Discarding worries of stubbornly slow global economic growth and other distractions, markets focused on positive economic news and hopes of U.S. tax reform this quarter, suggesting rising stock prices ahead. Volatility as a measure of perceived market risk reached cyclical lows across the major markets. Amid this risk-on environment, hedge funds got some traction. Illustrating raw hedge fund performance without implementation costs, the asset-weighted **Credit Suisse Hedge Fund Index** (CS HFI) rose 1.8%. As a proxy for live hedge fund portfolios, the median manager in the **Callan Hedge Fund-of-Funds Database** advanced 2.0%, net of all fees and expenses.

Within CS HFI, the best-performing strategy was *Emerging Markets* (+5.6%), where embedded market beta explained some but not all of the gains. Other strategies performing particularly well were *Equity Market Neutral* (+4.4%) and *Long/Short Equity* (+3.0%); both benefited from an improved stock-picking environment. *Managed Futures* (+1.3%) and *Global Macro* (+1.8%) benefited modestly from top-down trends and discretionary calls, particularly in the equity markets.

Within Callan's Hedge Fund-of-Funds Database, market exposures meaningfully affected performance in the quarter. Supported by the equity rally, the median *Callan Long/Short Equity FOF* (+3.1%) handily beat the *Callan Absolute Return FOF* (+1.8%). With exposures to both non-directional and directional styles, the *Core Diversified FOF* advanced 1.9%.

### Callan Style Group Quarterly Returns



Sources: Callan and Merrill Lynch

### Callan Database Median and Index Returns\* for Periods ended September 30, 2017

	Quarter	YTD	Year	3 Years	5 Years	10 Years	15 Years
<b>Hedge Fund-of-Funds Database</b>	<b>2.02</b>	<b>5.47</b>	<b>7.26</b>	<b>2.87</b>	<b>4.97</b>	<b>3.11</b>	<b>5.16</b>
CS Hedge Fund Index	1.81	4.70	5.91	1.96	4.16	3.24	6.00
CS Equity Market Neutral	4.38	7.00	4.16	1.37	2.48	-2.89	0.55
CS Convertible Arbitrage	1.61	4.10	4.54	2.76	3.51	3.61	4.76
CS Fixed Income Arbitrage	0.22	4.20	6.12	3.02	3.86	3.57	4.04
CS Multi-Strategy	1.38	6.56	7.80	5.33	6.97	5.01	7.06
CS Distressed	1.56	5.52	9.29	1.27	5.47	3.70	7.68
CS Risk Arbitrage	1.66	5.70	6.52	3.37	3.44	3.10	4.38
CS Event-Driven Multi-Strategy	0.58	4.27	6.12	-1.19	3.47	2.73	6.49
CS Long/Short Equity	2.99	9.81	9.59	3.94	6.86	3.91	6.88
CS Global Macro	1.83	0.26	4.86	1.48	2.53	4.58	7.31
CS Managed Futures	1.32	-3.12	-8.59	-0.17	0.00	2.09	3.25
CS Emerging Markets	5.58	13.02	12.72	5.88	6.21	3.53	8.63

\*Returns less than one year are not annualized. Sources: Callan and Credit Suisse.

# DC Index Clocks Strongest First Half in Its History

DEFINED CONTRIBUTION | Tom Szkwarla

The Callan DC Index™ rose a healthy 3.1% during the second quarter, reflecting strong equity market performance, and is now up 7.9% year-to-date—its best first-half performance since its 2006 inception. Still, the Index trailed the typical Age 45 Target Date Fund (TDF), which gained 3.7% in the second quarter and 9.4% in the first half. TDFs have benefited from higher exposures to non-U.S. equity and emerging markets, which are both up sharply year to date, than the typical DC participant.

Since the Index's inception in 2006, the average TDF has outperformed DC plans by 76 basis points annually. Due to their heavier equity exposure, TDFs have tended to outperform in strong markets and underperform in weak markets.

For the quarter, plan balances rose 3.19%, almost entirely due to return growth (3.06%) rather than inflows (plan sponsor and participant contributions), which contributed just 0.13%.

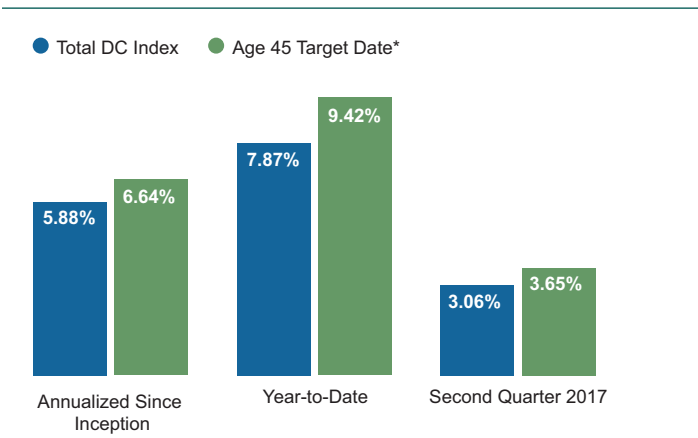
The proportion of net flows into non-U.S. equities during the quarter was the highest since late 2007. Money primarily flowed out of stable value, U.S. small/mid cap equity, and company stock. As usual, TDFs attracted the lion's share of net flows, with 69 cents of every dollar of flows moving into these funds.

Index turnover (i.e., net transfer activity levels within DC plans) came in at 0.43% in the quarter compared to average historical quarterly turnover levels of 0.63%.

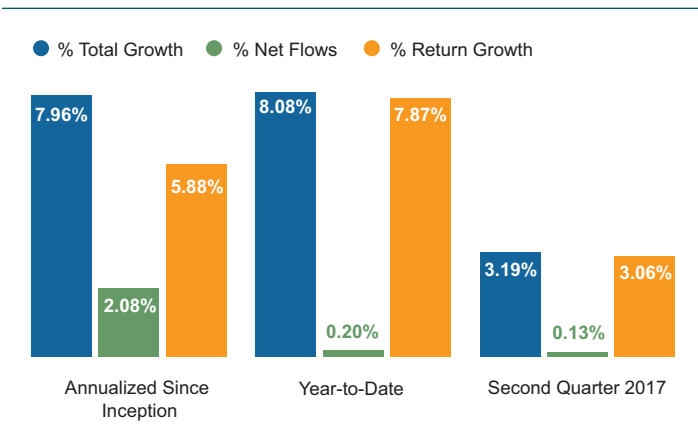
The Callan DC Index's overall equity allocation edged up from last quarter to nearly 70%, slightly above the Index's historical average of 67%. Still, the Index has yet to achieve its pre-Global Financial Crisis equity allocation peak of 73% (fourth quarter of 2007).

*The Callan DC Index is an equally weighted index tracking the cash flows and performance of nearly 90 plans, representing more than one million DC participants and over \$135 billion in assets. The Index is updated quarterly and is available on Callan's website, as is the quarterly DC Observer newsletter.*

## Investment Performance



## Growth Sources



## Net Cash Flow Analysis (Second Quarter 2017) (Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	69.47%
Emerging Market Equity	1.94%
U.S. Small/Mid Cap	-28.57%
Stable Value	-31.80%
Total Turnover**	0.43%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

Note: DC Index inception date is January 2006.

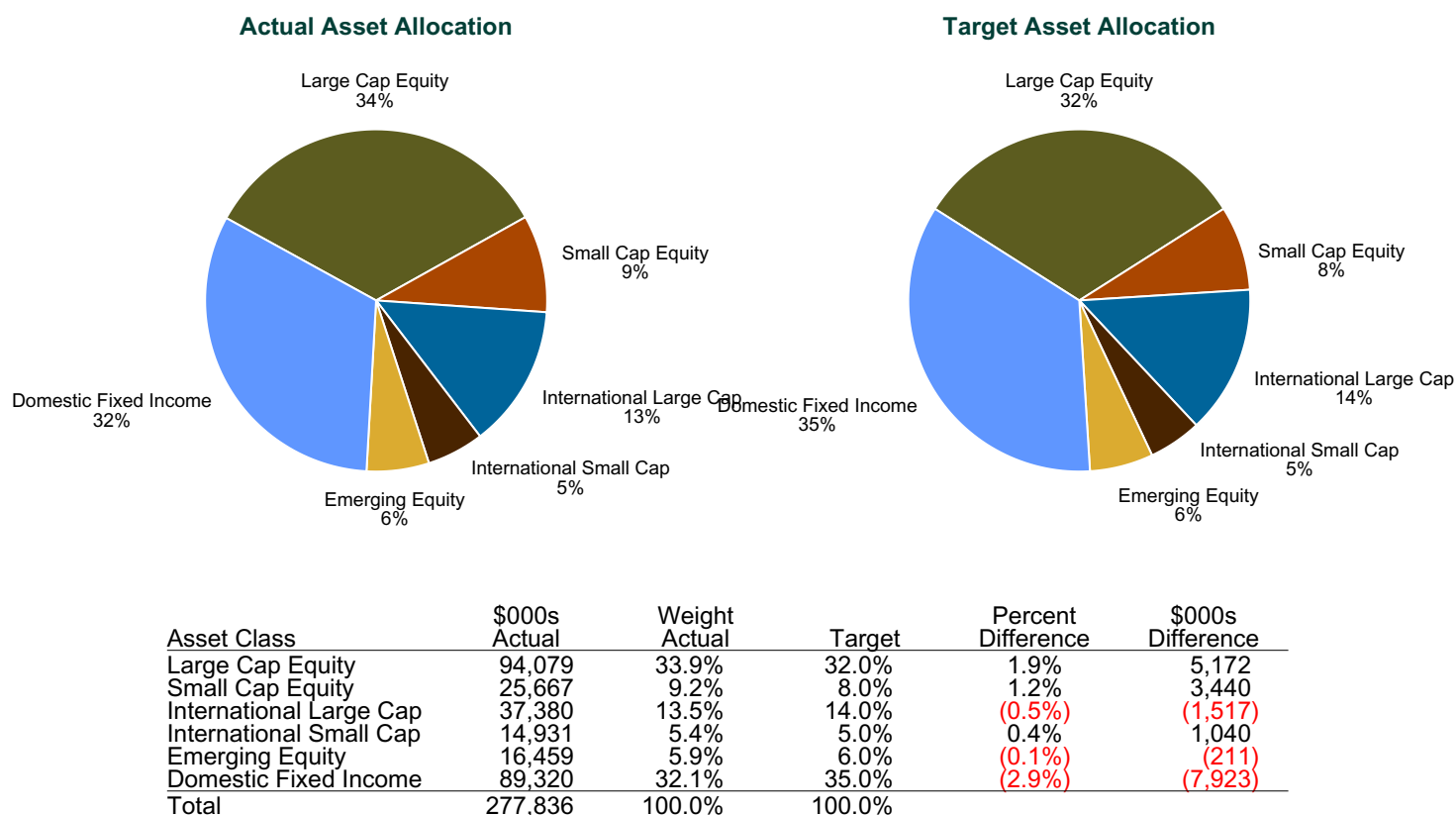
\* The Age 45 Fund transitioned from the average 2030 TDF to the 2035 TDF in June 2013.

\*\* Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

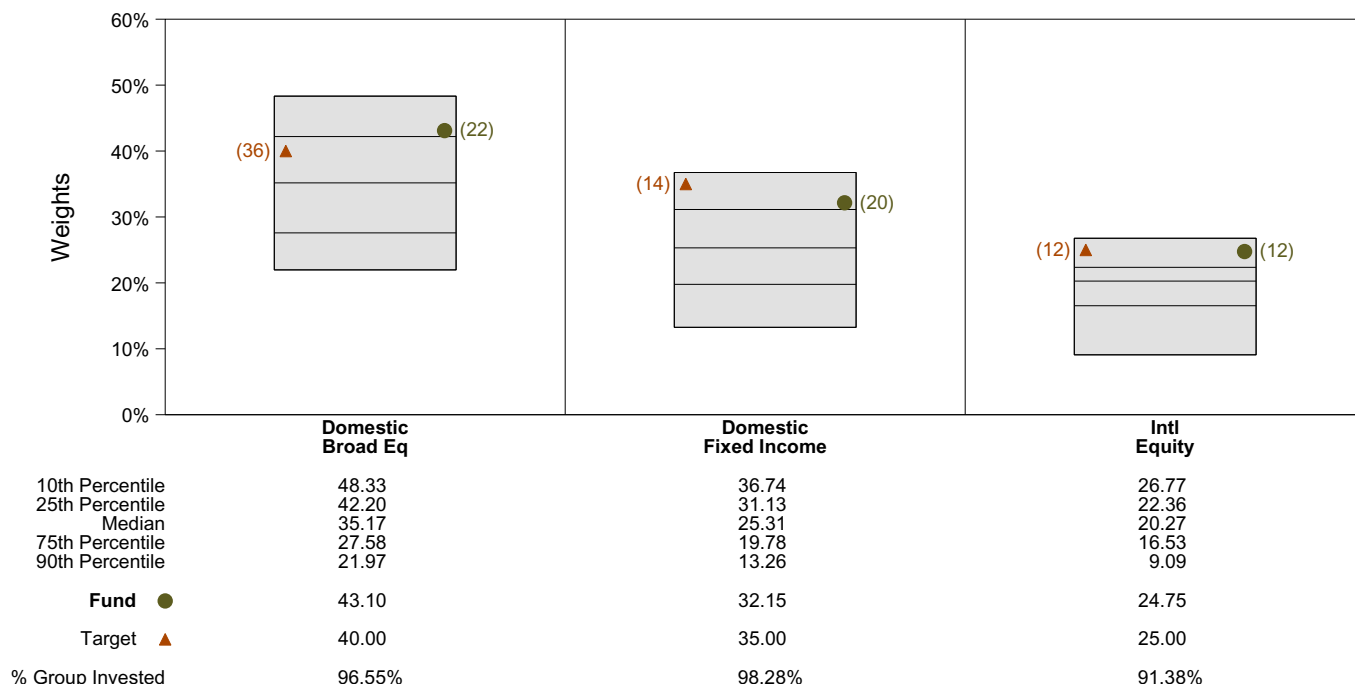


## Actual vs Target Asset Allocation As of September 30, 2017

The top left chart shows the Fund's asset allocation as of September 30, 2017. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor - Mid Databas.



## Asset Class Weights vs Callan Public Fund Sponsor - Mid Databas

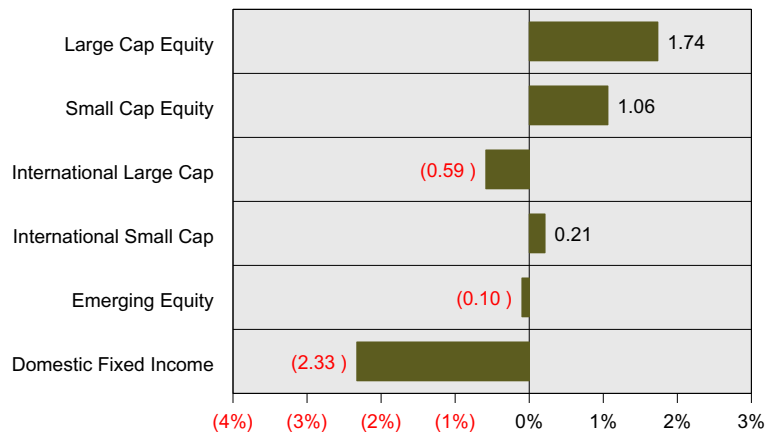


\* Current Quarter Target = 35.0% Bimbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

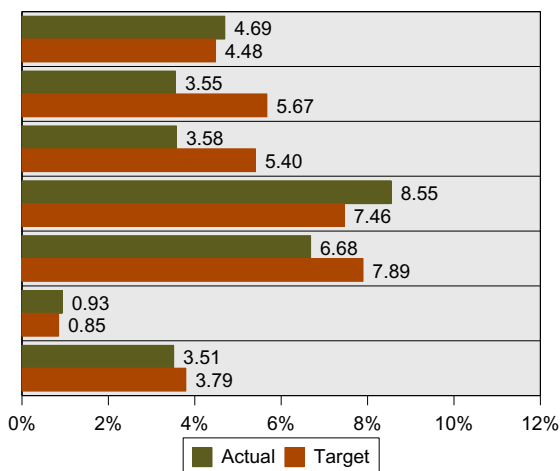
## Quarterly Total Fund Relative Attribution - September 30, 2017

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

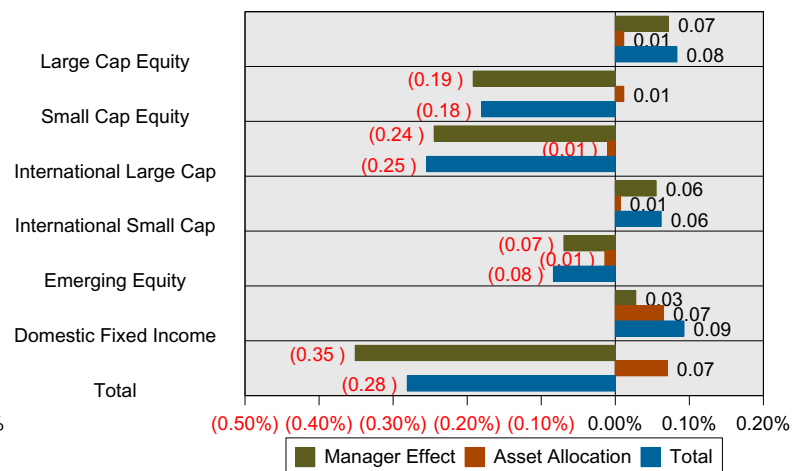
### Asset Class Under or Overweighting



### Actual vs Target Returns



### Relative Attribution by Asset Class



### Relative Attribution Effects for Quarter ended September 30, 2017

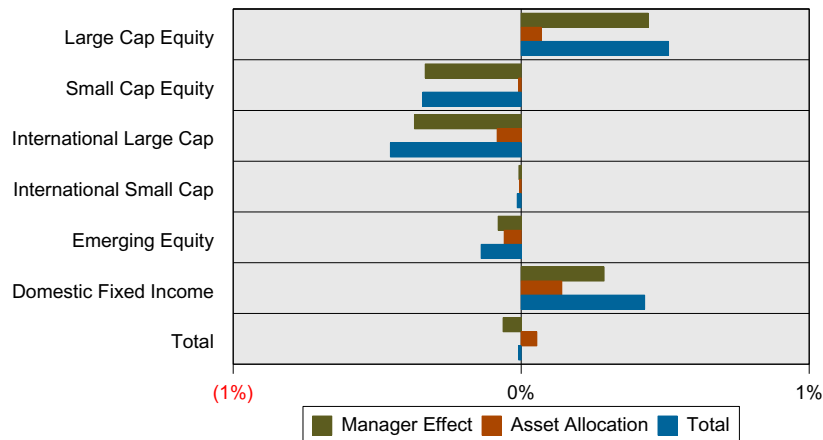
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	34%	32%	4.69%	4.48%	0.07%	0.01%	0.08%
Small Cap Equity	9%	8%	3.55%	5.67%	(0.19%)	0.01%	(0.18%)
International Large Cap	13%	14%	3.58%	5.40%	(0.24%)	(0.01%)	(0.25%)
International Small Cap	5%	5%	8.55%	7.46%	0.06%	0.01%	0.06%
Emerging Equity	6%	6%	6.68%	7.89%	(0.07%)	(0.01%)	(0.08%)
Domestic Fixed Income	33%	35%	0.93%	0.85%	0.03%	0.07%	0.09%
<b>Total</b>			<b>3.51%</b>	<b>3.79%</b>	<b>(0.35%)</b>	<b>0.07%</b>	<b>(0.28%)</b>

\* Current Quarter Target = 35.0% Bimbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

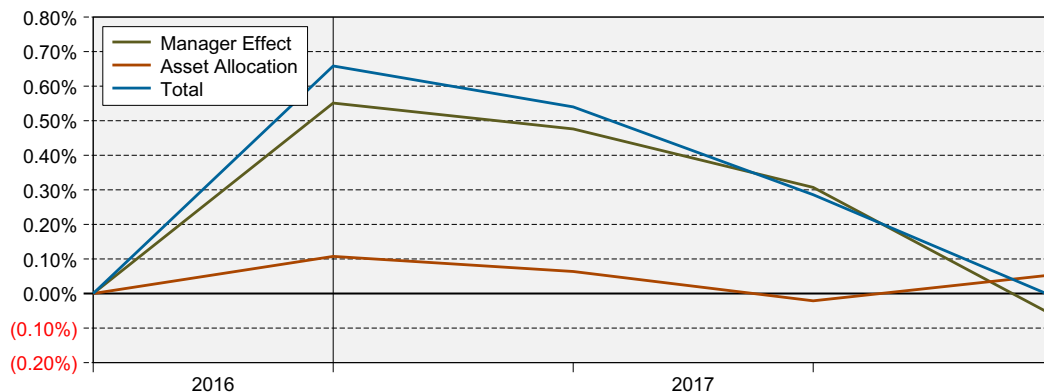
## Cumulative Total Fund Relative Attribution - September 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### One Year Relative Attribution Effects



### Cumulative Relative Attribution Effects



### One Year Relative Attribution Effects

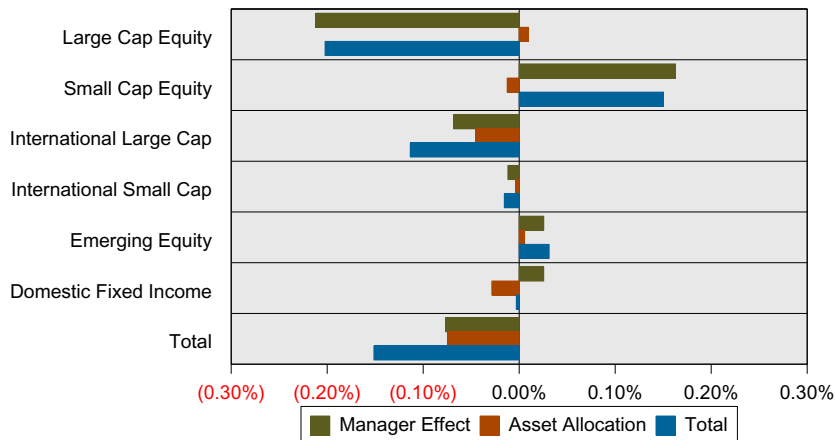
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	34%	32%	20.01%	18.61%	0.44%	0.07%	0.51%
Small Cap Equity	9%	8%	17.18%	20.74%	(0.33%)	(0.01%)	(0.34%)
International Large Cap	13%	14%	16.22%	19.10%	(0.37%)	(0.08%)	(0.45%)
International Small Cap	5%	5%	21.54%	21.84%	(0.01%)	(0.01%)	(0.01%)
Emerging Equity	6%	6%	21.03%	22.46%	(0.08%)	(0.06%)	(0.14%)
Domestic Fixed Income	34%	35%	0.82%	0.07%	0.29%	0.14%	0.43%
<b>Total</b>			<b>12.54%</b>	<b>12.55%</b>	<b>+(0.06%)</b>	<b>+ 0.05%</b>	<b>(0.01%)</b>

\* Current Quarter Target = 35.0% Bimbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

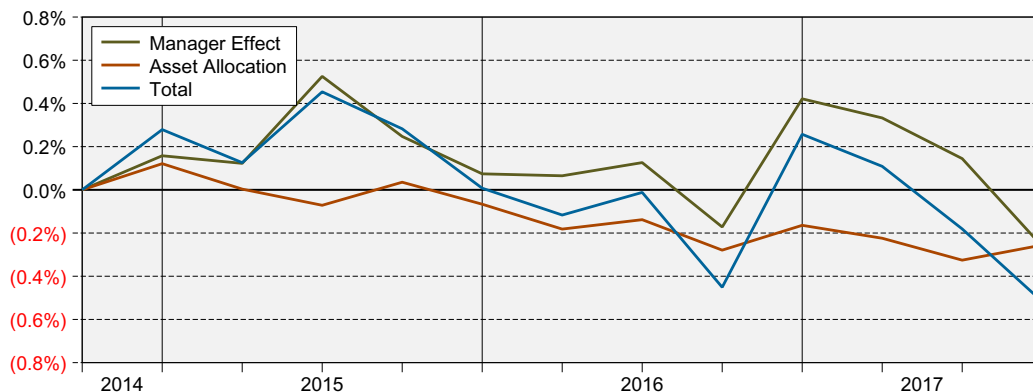
## Cumulative Total Fund Relative Attribution - September 30, 2017

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

### Three Year Annualized Relative Attribution Effects



### Cumulative Relative Attribution Effects



### Three Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap Equity	33%	32%	10.12%	10.81%	(0.21%)	0.01%	(0.20%)
Small Cap Equity	9%	8%	14.65%	12.18%	0.16%	(0.01%)	0.15%
International Large Cap	16%	17%	4.61%	5.04%	(0.07%)	(0.05%)	(0.11%)
International Small Cap	2%	2%	7.36%	7.65%	(0.01%)	(0.00%)	(0.02%)
Emerging Equity	5%	6%	5.57%	4.90%	0.03%	0.01%	0.03%
Domestic Fixed Income	36%	36%	2.82%	2.71%	0.03%	(0.03%)	(0.00%)
<b>Total</b>			<b>6.67%</b>	<b>6.82%</b>	<b>(0.08%)</b>	<b>(0.07%)</b>	<b>(0.15%)</b>

\* Current Quarter Target = 35.0% Bimbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.



## Total Fund Period Ended September 30, 2017

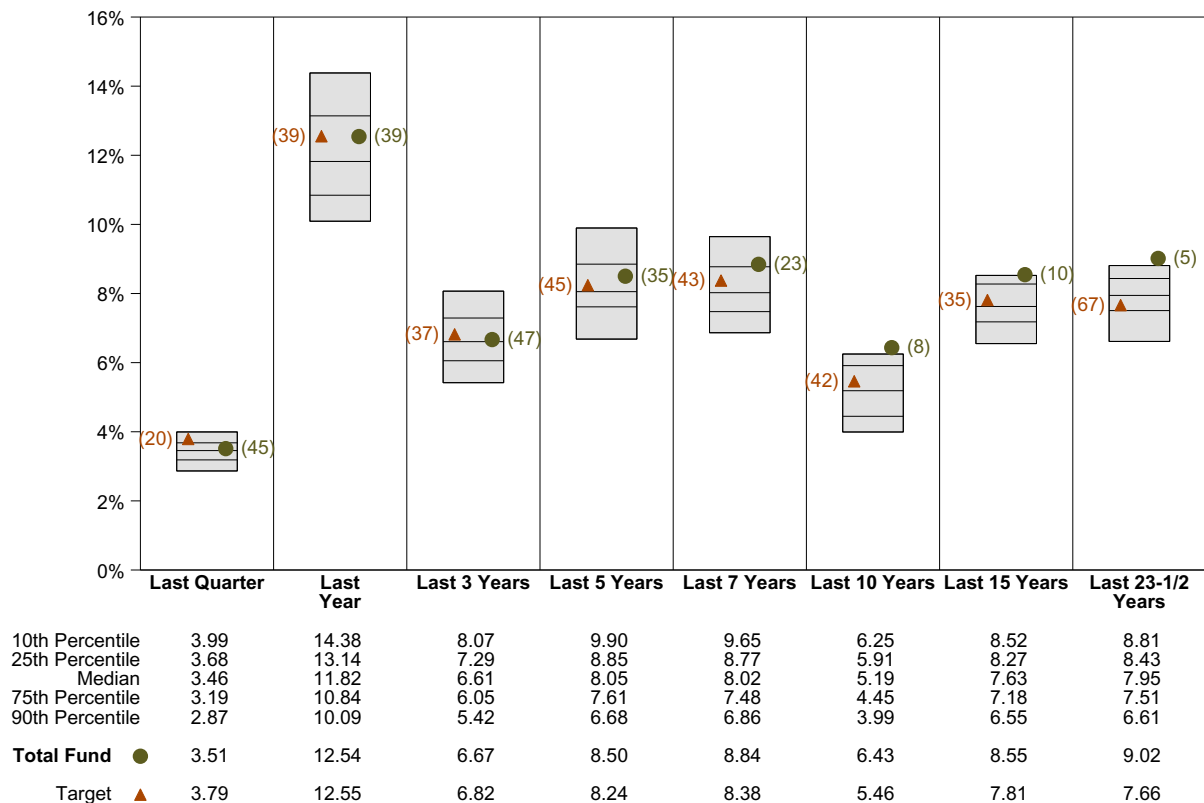
### Investment Philosophy

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM Gross and 5.0% MSCI EAFE Small Cap.

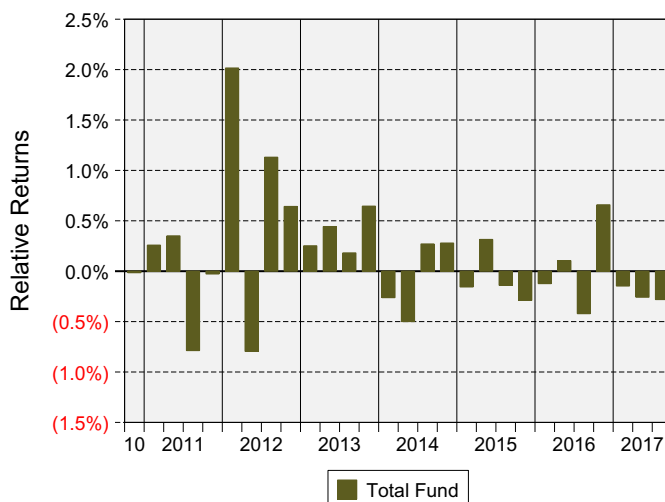
### Quarterly Summary and Highlights

- Total Fund's portfolio posted a 3.51% return for the quarter placing it in the 45 percentile of the Callan Public Fund Sponsor - Mid Databas group for the quarter and in the 39 percentile for the last year.
- Total Fund's portfolio underperformed the Target by 0.28% for the quarter and underperformed the Target for the year by 0.01%.

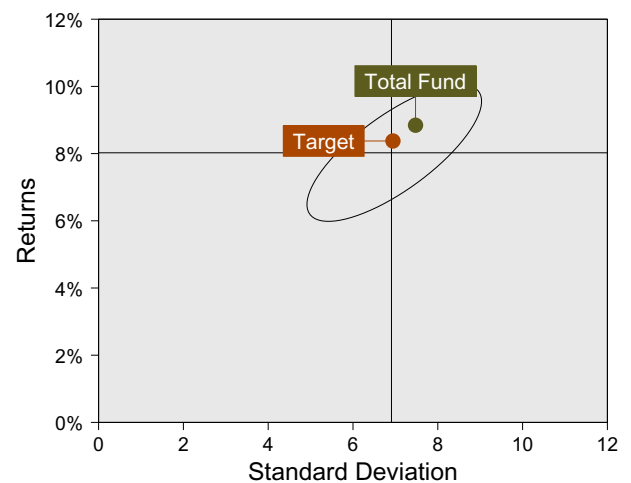
### Performance vs Callan Public Fund Sponsor - Mid Databas (Gross)



### Relative Return vs Target



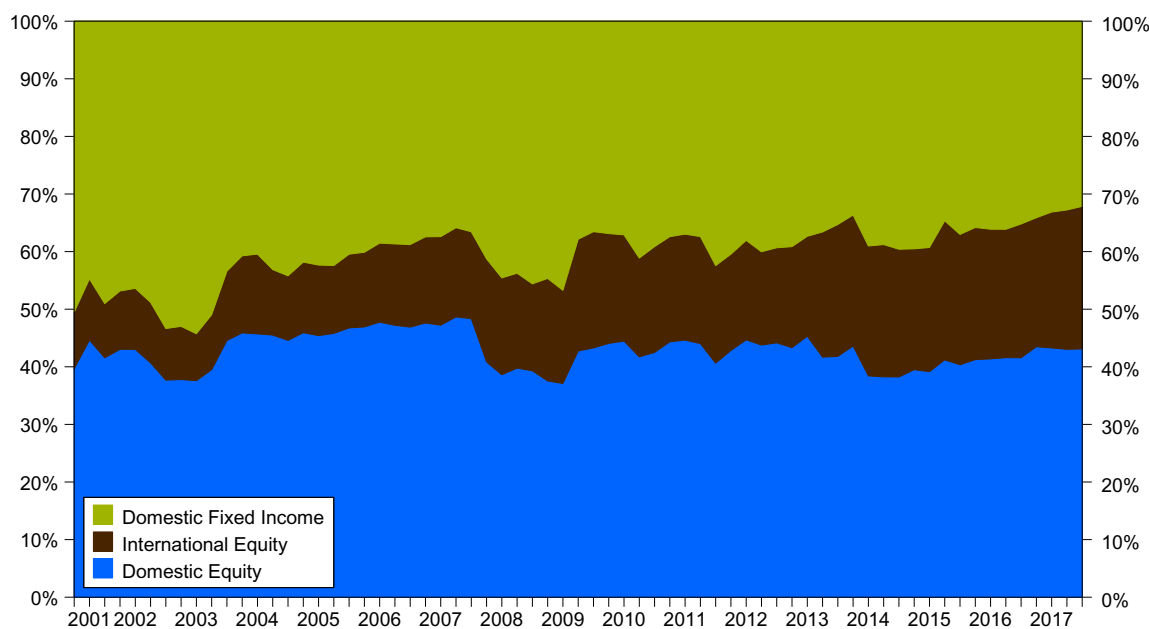
### Callan Public Fund Sponsor - Mid Databas (Gross) Annualized Seven Year Risk vs Return



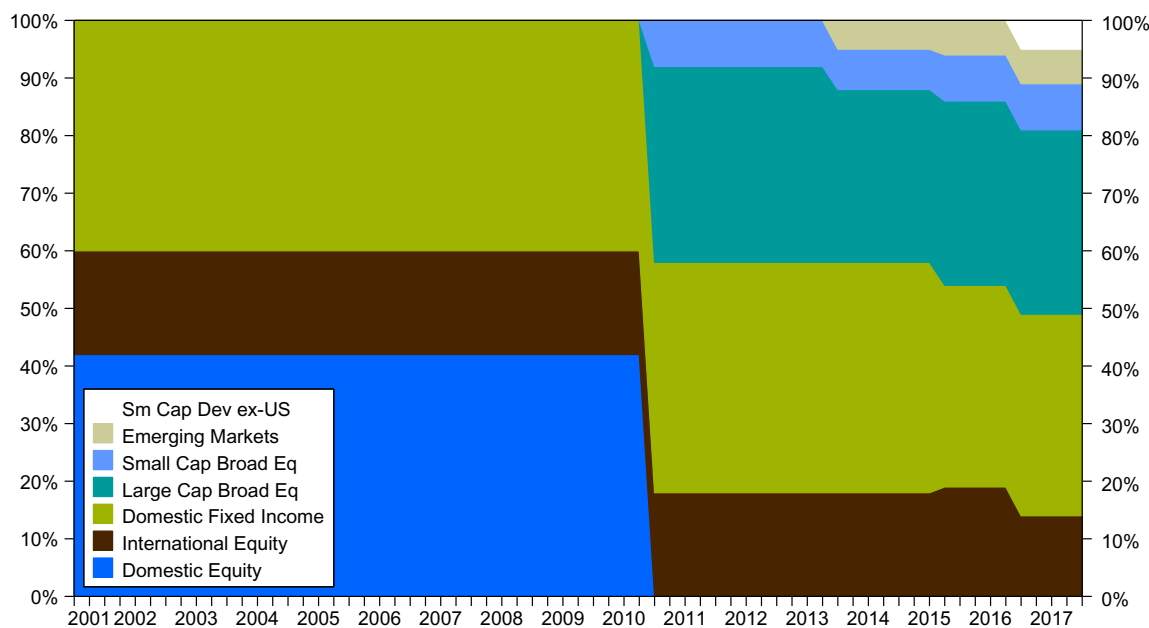
## Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

### Actual Historical Asset Allocation



### Target Historical Asset Allocation



\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

## Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2017, with the distribution as of June 30, 2017. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

### Asset Distribution Across Investment Managers

	September 30, 2017 Market Value	Net New Inv.	Inv. Return	June 30, 2017 Market Value
<b>Consolidated Plan</b>				
<b>Domestic Equity</b>	<b>\$119,746,253</b>	<b>\$(1,582,282)</b>	<b>\$5,132,016</b>	<b>\$116,196,519</b>
<b>Large Cap</b>	<b>\$94,078,988</b>	<b>\$(1,582,282)</b>	<b>\$4,251,658</b>	<b>\$91,409,611</b>
Boston Partners	47,053,204	(1,019,591)	2,222,387	45,850,408
SSgA S&P 500	47,025,784	(562,691)	2,029,272	45,559,203
<b>Small Cap</b>	<b>\$25,667,265</b>	<b>\$0</b>	<b>\$880,357</b>	<b>\$24,786,908</b>
Atlanta Capital	25,667,265	0	880,357	24,786,908
<b>International Equity</b>	<b>\$68,769,777</b>	<b>\$0</b>	<b>\$3,443,626</b>	<b>\$65,326,150</b>
<b>International Large Cap</b>	<b>\$37,379,712</b>	<b>\$0</b>	<b>\$1,290,237</b>	<b>\$36,089,475</b>
Brandes	9,452	0	155	9,297
SSgA EAFE	11,057,499	0	574,164	10,483,335
Pyrford	26,312,761	0	715,918	25,596,843
<b>International Small Cap</b>	<b>\$14,931,309</b>	<b>\$0</b>	<b>\$1,142,980</b>	<b>\$13,788,329</b>
AQR	14,931,309	0	1,142,980	13,788,329
<b>Emerging Equity</b>	<b>\$16,458,755</b>	<b>\$0</b>	<b>\$1,010,409</b>	<b>\$15,448,346</b>
DFA Emerging Markets	16,458,755	0	1,010,409	15,448,346
<b>Fixed Income</b>	<b>\$89,319,569</b>	<b>\$0</b>	<b>\$824,534</b>	<b>\$88,495,034</b>
Metropolitan West	89,319,569	0	824,534	88,495,034
<b>Total Plan - Consolidated</b>	<b>\$277,835,599</b>	<b>\$(1,582,282)</b>	<b>\$9,400,177</b>	<b>\$270,017,704</b>

## Sacramento Regional Transit District Asset Growth

Ending September 30, 2017 (\$ Thousands)	Ending Market Value	=	Beginning Market Value	+	Net New Investment	+	Investment Return
<b>Total Plan</b>							
1/4 Year Ended 9/2017	277,835.6		270,017.7		(1,582.3)		9,400.2
1/4 Year Ended 6/2017	270,017.7		263,189.7		(1,149.1)		7,977.1
1/4 Year Ended 3/2017	263,189.7		253,159.1		(930.2)		10,960.7
1/4 Year Ended 12/2016	253,159.1		251,635.0		(1,139.0)		2,663.2
1/4 Year Ended 9/2016	251,635.0		244,029.2		(937.8)		8,543.5
1/4 Year Ended 6/2016	244,029.2		240,502.3		(684.5)		4,211.5
1/4 Year Ended 3/2016	240,502.3		238,289.7		(450.0)		2,662.6
1/4 Year Ended 12/2015	238,289.7		232,085.4		(816.4)		7,020.7
1/4 Year Ended 9/2015	232,085.4		246,970.5		(534.9)		(14,350.2)
1/4 Year Ended 6/2015	246,970.5		247,920.3		(766.8)		(183.0)
1/4 Year Ended 3/2015	247,920.3		243,017.9		(295.4)		5,197.8
1/4 Year Ended 12/2014	243,017.9		238,642.3		(1,001.3)		5,377.0
1/4 Year Ended 9/2014	238,642.3		241,859.7		(632.5)		(2,584.9)
1/4 Year Ended 6/2014	241,859.7		235,305.8		(752.1)		7,306.0
1/4 Year Ended 3/2014	235,305.8		233,171.6		(781.9)		2,916.1
1/4 Year Ended 12/2013	233,171.6		222,071.8		(913.1)		12,012.9
1/4 Year Ended 9/2013	222,071.8		212,659.5		(1,311.0)		10,723.3
1/4 Year Ended 6/2013	212,659.5		212,527.3		(1,129.6)		1,261.9
1/4 Year Ended 3/2013	212,527.3		202,131.0		(1,047.2)		11,443.5
1/4 Year Ended 12/2012	202,131.0		199,766.3		(1,446.2)		3,810.9

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended September 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Domestic Equity</b>	<b>4.46%</b>	<b>19.40%</b>	<b>11.00%</b>	<b>14.46%</b>	<b>14.79%</b>
Domestic Equity Benchmark**	4.73%	19.13%	11.14%	14.21%	14.27%
<b>Large Cap Equity</b>	<b>4.69%</b>	<b>20.01%</b>	<b>10.12%</b>	<b>14.19%</b>	<b>14.44%</b>
Boston Partners	4.89%	21.36%	9.35%	14.09%	14.65%
Russell 1000 Value Index	3.11%	15.12%	8.53%	13.20%	13.24%
SSgA S&P 500	4.49%	18.66%	10.88%	14.27%	-
S&P 500 Index	4.48%	18.61%	10.81%	14.22%	14.38%
<b>Small Cap Equity</b>	<b>3.55%</b>	<b>17.18%</b>	<b>14.65%</b>	<b>15.42%</b>	<b>16.15%</b>
Atlanta Capital	3.55%	17.18%	14.65%	15.42%	16.15%
Russell 2000 Index	5.67%	20.74%	12.18%	13.79%	13.51%
<b>International Equity</b>	<b>5.36%</b>	<b>18.40%</b>	<b>4.94%</b>	<b>7.64%</b>	<b>5.85%</b>
Custom International Benchmark***	6.27%	19.55%	4.73%	8.01%	6.12%
<b>International Large Cap</b>	<b>3.58%</b>	<b>16.22%</b>	<b>4.61%</b>	-	-
SSgA EAFE	5.48%	19.56%	5.39%	8.66%	-
Pyrford	2.80%	-	-	-	-
MSCI EAFE Index	5.40%	19.10%	5.04%	8.38%	6.38%
<b>International Small Cap</b>	<b>8.55%</b>	<b>21.54%</b>	-	-	-
AQR	8.55%	21.54%	-	-	-
MSCI EAFE Small Cap Index	7.46%	21.84%	11.13%	12.85%	9.98%
<b>Emerging Markets Equity</b>	<b>6.68%</b>	<b>21.03%</b>	<b>5.57%</b>	-	-
DFA Emerging Markets	6.68%	21.03%	5.57%	-	-
MSCI Emerging Markets Index	7.89%	22.46%	4.90%	3.99%	2.54%
<b>Domestic Fixed Income</b>	<b>0.93%</b>	<b>0.82%</b>	<b>2.82%</b>	<b>2.54%</b>	<b>3.88%</b>
Met West	0.93%	0.82%	2.82%	2.54%	3.88%
Bloomberg Aggregate Index	0.85%	0.07%	2.71%	2.06%	2.95%
<b>Total Plan</b>	<b>3.51%</b>	<b>12.54%</b>	<b>6.67%</b>	<b>8.50%</b>	<b>8.84%</b>
Target*	3.79%	12.55%	6.82%	8.24%	8.38%

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

\*\* Domestic Equity Benchmark = 80% S&P500, 20% Russell 2000 as of 5/1/2015

\*\*\* Custom International Benchmark = MSCI EAFE until 6/30/2013, MSCI ACWI ex US until 7/31/2016, and MSCI ACWI ex US IMI thereafter.

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2017				
	Last 10 Years	Last 15 Years	Last 20 Years	Last 23-1/2 Years
<b>Domestic Equity</b>	<b>8.40%</b>	<b>10.81%</b>	<b>7.36%</b>	<b>-</b>
Domestic Equity Benchmark**	7.60%	10.41%	7.39%	9.99%
Russell 1000 Value Index	5.92%	9.82%	7.35%	9.87%
S&P 500 Index	7.44%	10.04%	7.00%	9.77%
Russell 2000 Index	7.85%	11.37%	7.53%	9.35%
<b>International Equity</b>	<b>1.53%</b>	<b>9.24%</b>	<b>8.19%</b>	<b>-</b>
MSCI EAFE Index	1.34%	8.26%	4.60%	5.26%
<b>Domestic Fixed Income</b>	<b>5.80%</b>	<b>6.03%</b>	<b>5.92%</b>	<b>-</b>
Met West	5.80%	6.03%	-	-
Bloomberg Aggregate Index	4.27%	4.23%	5.12%	5.53%
<b>Total Plan</b>	<b>6.43%</b>	<b>8.55%</b>	<b>7.32%</b>	<b>9.02%</b>
Target*	5.46%	7.81%	6.32%	7.66%

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

\*\* Domestic Equity Benchmark = 80% S&P500, 20% Russell 2000 as of 5/1/2015

## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2016- 9/2017	2016	2015	2014	2013
<b>Domestic Equity</b>	<b>12.29%</b>	<b>14.58%</b>	<b>0.06%</b>	<b>10.85%</b>	<b>36.44%</b>
Domestic Equity Benchmark**	13.61%	13.85%	0.26%	12.07%	33.61%
<b>Large Cap Equity</b>	<b>13.13%</b>	<b>13.38%</b>	<b>(1.17%)</b>	<b>12.81%</b>	<b>34.96%</b>
Boston Partners	12.01%	14.71%	<b>(3.75%)</b>	11.87%	37.52%
Russell 1000 Value Index	7.92%	17.34%	<b>(3.83%)</b>	13.45%	32.53%
SSgA S&P 500	14.26%	12.03%	1.46%	13.77%	32.36%
S&P 500 Index	14.24%	11.96%	1.38%	13.69%	32.39%
<b>Small Cap Equity</b>	<b>9.20%</b>	<b>19.17%</b>	<b>5.14%</b>	<b>3.49%</b>	<b>41.51%</b>
Atlanta Capital	9.20%	19.17%	5.14%	3.49%	41.51%
Russell 2000 Index	10.94%	21.31%	<b>(4.41%)</b>	4.89%	38.82%
<b>International Equity</b>	<b>21.89%</b>	<b>2.55%</b>	<b>(4.17%)</b>	<b>(3.72%)</b>	<b>16.66%</b>
Custom International Benchmark***	21.47%	4.29%	<b>(5.66%)</b>	<b>(3.87%)</b>	20.07%
<b>International Large Cap</b>	<b>18.09%</b>	<b>1.35%</b>	<b>(1.17%)</b>	<b>(4.41%)</b>	<b>20.27%</b>
SSgA EAFE	20.38%	1.37%	<b>(0.56%)</b>	<b>(4.55%)</b>	22.80%
MSCI EAFE Index	19.96%	1.00%	<b>(0.81%)</b>	<b>(4.90%)</b>	22.78%
<b>International Small Cap</b>	<b>26.48%</b>	-	-	-	-
AQR	26.48%	-	-	-	-
MSCI EAFE Small Cap	25.42%	2.18%	9.59%	<b>(4.95%)</b>	29.30%
<b>Emerging Markets Equity</b>	<b>27.33%</b>	<b>12.99%</b>	<b>(14.33%)</b>	<b>(0.28%)</b>	-
DFA Emerging Markets	27.33%	12.99%	<b>(14.33%)</b>	<b>(0.28%)</b>	-
MSCI Emerging Markets Index	27.78%	11.19%	<b>(14.92%)</b>	<b>(2.19%)</b>	<b>(2.60%)</b>
<b>Domestic Fixed Income</b>	<b>3.40%</b>	<b>2.87%</b>	<b>0.51%</b>	<b>6.37%</b>	<b>(1.03%)</b>
Met West	3.40%	2.87%	0.51%	6.37%	<b>(1.03%)</b>
Bloomberg Aggregate Index	3.14%	2.65%	0.55%	5.97%	<b>(2.02%)</b>
<b>Total Plan</b>	<b>11.34%</b>	<b>7.65%</b>	<b>(0.97%)</b>	<b>5.61%</b>	<b>17.71%</b>
Target*	12.08%	7.40%	<b>(0.71%)</b>	5.82%	15.99%

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

Returns are for annualized calendar years.

\*\* Domestic Equity Benchmark = 80% S&P500, 20% Russell 2000 as of 5/1/2015

\*\*\* Custom International Benchmark = MSCI EAFE until 6/30/2013, MSCI ACWI ex US until 7/31/2016, and MSCI ACWI ex US IMI thereafter.

## Investment Manager Returns

The table below details the rates of return for the Sponsor's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	2012	2011	2010	2009	2008
<b>Domestic Equity</b>	<b>19.19%</b>	<b>2.08%</b>	<b>15.93%</b>	<b>32.93%</b>	<b>(36.27%)</b>
Domestic Equity Benchmark**	16.09%	0.94%	17.33%	28.02%	(36.92%)
Boston Partners	21.95%	1.27%	13.61%	27.06%	(32.69%)
Russell 1000 Value Index	17.51%	0.39%	15.51%	19.69%	(36.85%)
S&P 500 Index	16.00%	2.11%	15.06%	26.47%	(37.00%)
Russell 2000 Index	16.35%	(4.18%)	26.85%	27.17%	(33.79%)
<b>International Equity</b>	<b>17.28%</b>	<b>(10.64%)</b>	<b>6.51%</b>	<b>28.99%</b>	<b>(39.41%)</b>
MSCI EAFE Index	17.32%	(12.14%)	7.75%	31.78%	(43.38%)
<b>Domestic Fixed Income</b>	<b>9.48%</b>	<b>6.10%</b>	<b>12.52%</b>	<b>19.88%</b>	<b>(3.11%)</b>
Met West	9.48%	6.10%	12.52%	19.88%	(3.11%)
Bloomberg Aggregate Index	4.21%	7.84%	6.54%	5.93%	5.24%
<b>Total Plan</b>	<b>14.80%</b>	<b>1.22%</b>	<b>12.70%</b>	<b>26.91%</b>	<b>(23.45%)</b>
Target*	11.68%	1.52%	11.85%	20.02%	(23.33%)

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.

Returns are for annualized calendar years.

\*\* Domestic Equity Benchmark = 80% S&P500, 20% Russell 2000 as of 5/1/2015



## Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2017. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

### Returns for Periods Ended September 30, 2017

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
<b>Net of Fee Returns</b>					
Domestic Equity	4.35%	18.97%	-	-	-
Large Cap Equity	4.62%	19.71%	-	-	-
Boston Partners	4.75%	20.81%	8.79%	13.50%	14.06%
Russell 1000 Value Index	3.11%	15.12%	8.53%	13.20%	13.24%
SSgA S&P 500	4.48%	18.61%	10.82%	14.22%	-
S&P 500 Index	4.48%	18.61%	10.81%	14.22%	14.38%
Small Cap Equity	3.35%	16.25%	-	-	-
Atlanta Capital	3.35%	16.25%	13.74%	14.51%	15.26%
Russell 2000 Index	5.67%	20.74%	12.18%	13.79%	13.51%
International Equity	5.20%	17.66%	-	-	-
International Large Cap	3.44%	15.63%	-	-	-
SSgA EAFE	5.45%	19.44%	5.28%	8.55%	-
Pyrford	2.62%	-	-	-	-
MSCI EAFE Index	5.40%	19.10%	5.04%	8.38%	6.38%
International Small Cap	8.29%	20.40%	-	-	-
AQR	8.29%	20.40%	-	-	-
MSCI EAFE Small Cap Index	7.46%	21.84%	11.13%	12.85%	9.98%
Emerging Markets Equity	6.54%	20.32%	-	-	-
DFA Emerging Markets	6.54%	20.32%	4.93%	-	-
MSCI Emerging Markets Index	7.89%	22.46%	4.90%	3.99%	2.54%
Domestic Fixed Income	0.86%	0.55%	-	-	-
Met West	0.86%	0.55%	2.54%	2.26%	3.60%
Bloomberg Aggregate Index	0.85%	0.07%	2.71%	2.06%	2.95%
Total Plan	3.40%	12.10%	6.30%	8.12%	8.41%
Target*	3.79%	12.55%	6.82%	8.24%	8.38%

\* Current Quarter Target = 35.0% Blmbg Aggregate, 32.0% S&P 500 Index, 14.0% MSCI EAFE, 8.0% Russell 2000 Index, 6.0% MSCI EM and 5.0% MSCI EAFE Small Cap.



## Domestic Equity Period Ended September 30, 2017

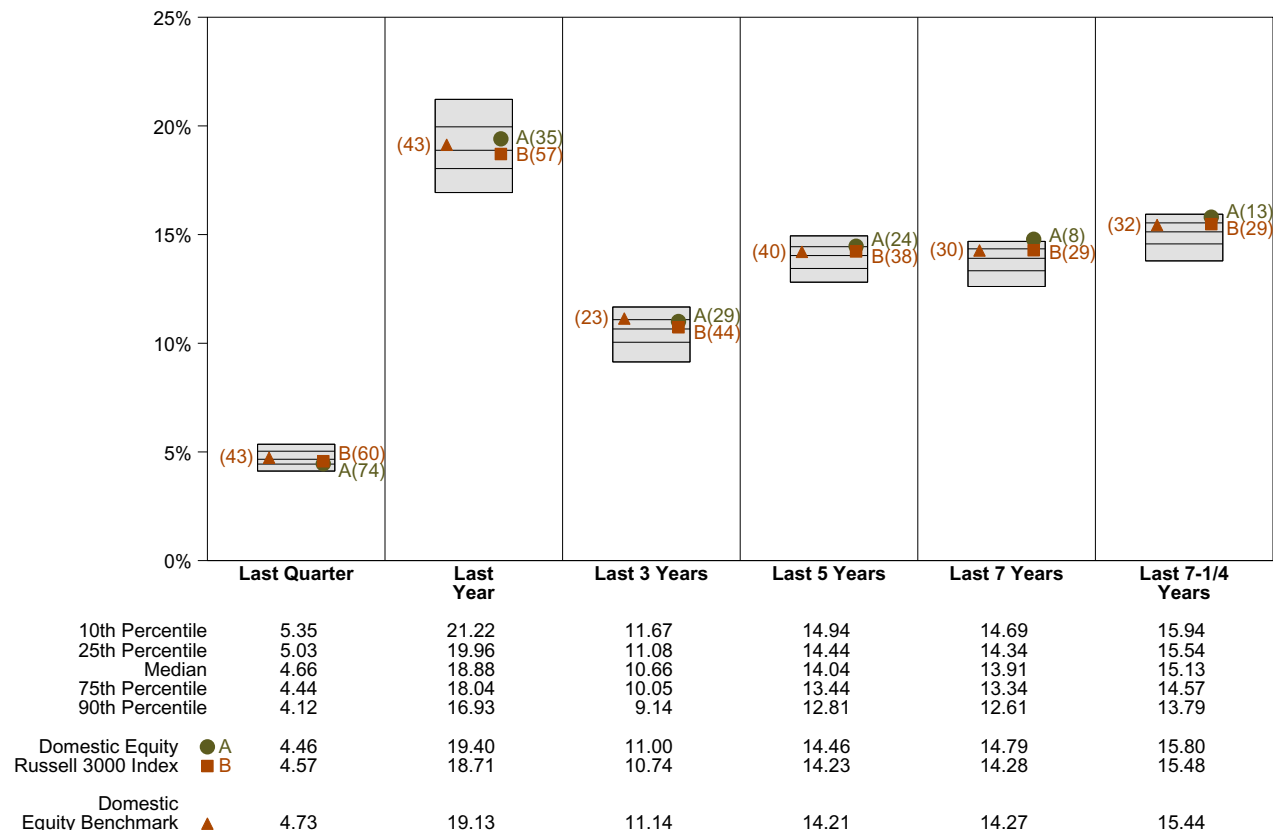
### Investment Philosophy

Domestic Equity Benchmark is comprised of: 80% S&P500 and 20% Russell 2000 as of 5/1/2015.

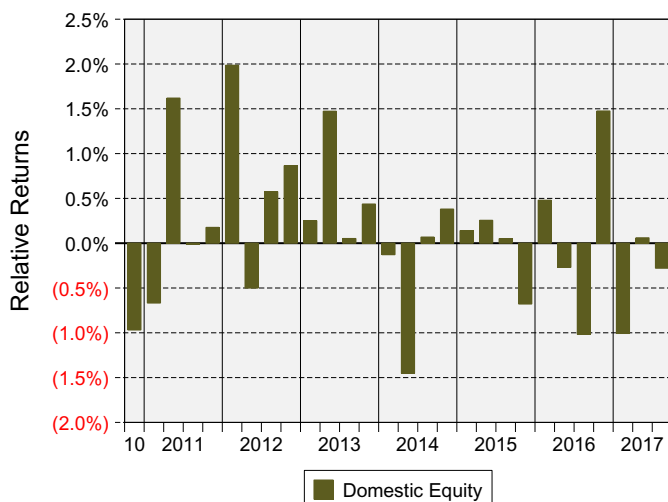
### Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a 4.46% return for the quarter placing it in the 74 percentile of the Fund Spnsr- Domestic Equity group for the quarter and in the 35 percentile for the last year.
- Domestic Equity's portfolio underperformed the Domestic Equity Benchmark by 0.28% for the quarter and outperformed the Domestic Equity Benchmark for the year by 0.27%.

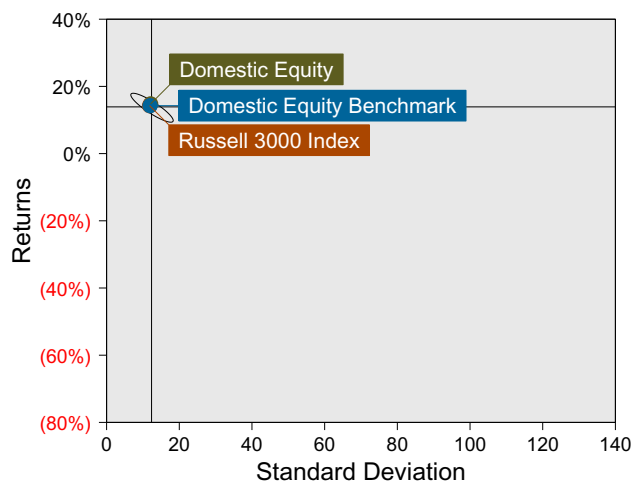
### Performance vs Fund Spnsr- Domestic Equity (Gross)



### Relative Returns vs Domestic Equity Benchmark



### Fund Spnsr- Domestic Equity (Gross) Annualized Seven Year Risk vs Return

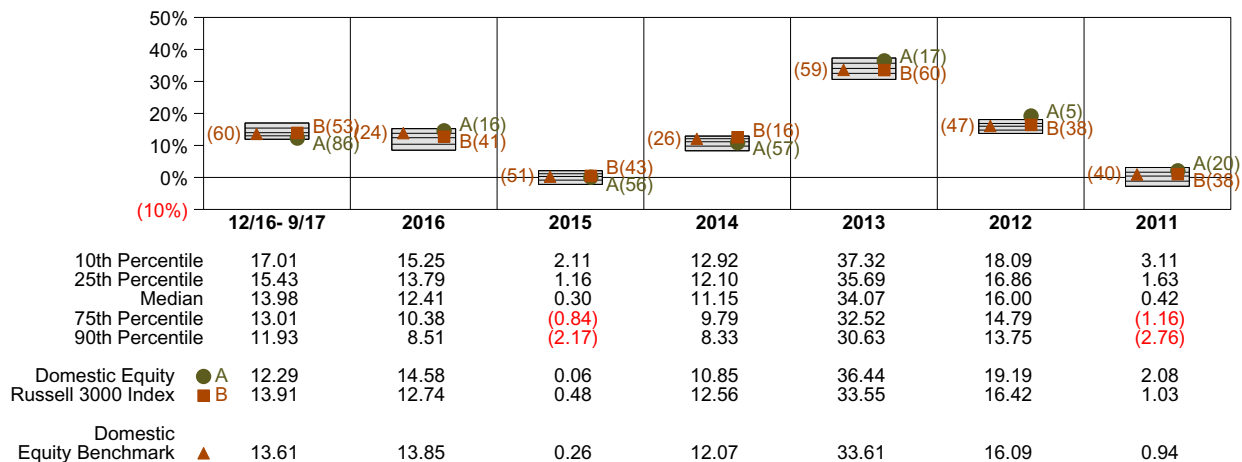


## Domestic Equity Return Analysis Summary

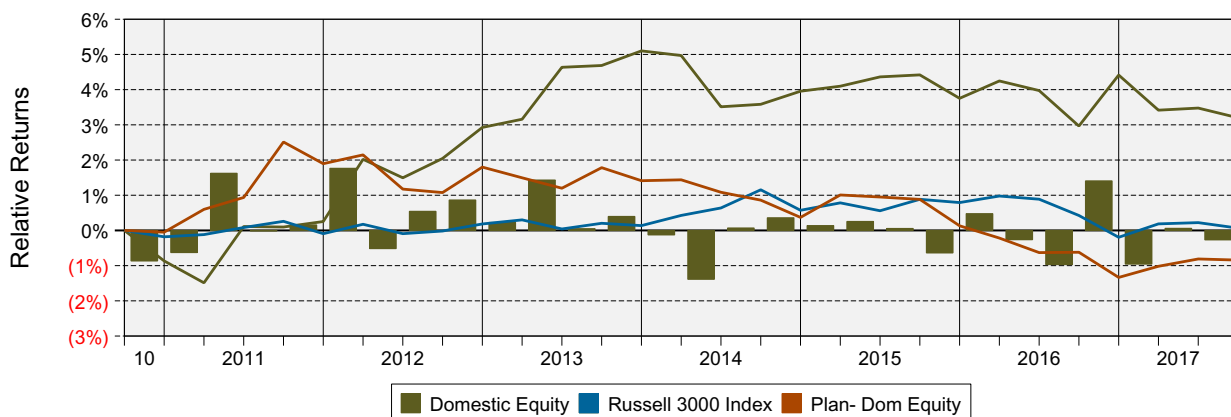
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

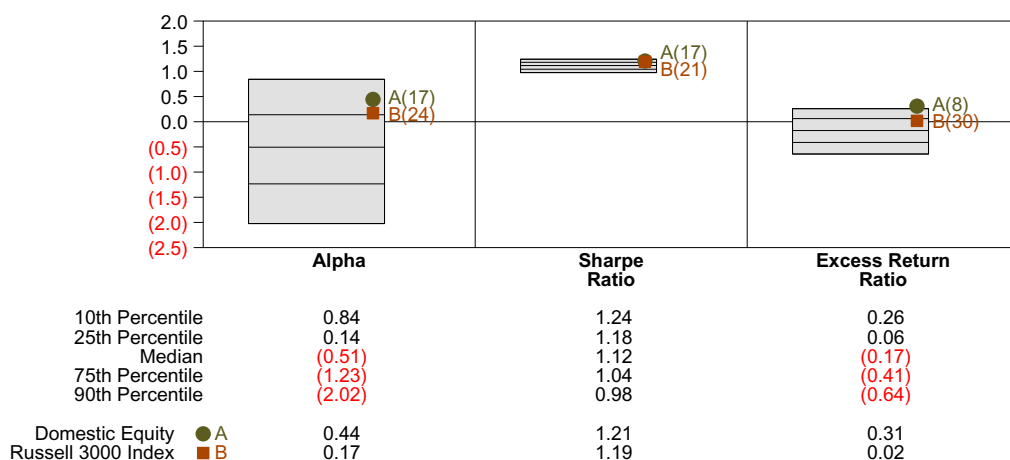
### Performance vs Fund Spnsr- Domestic Equity (Gross)



### Cumulative and Quarterly Relative Return vs Domestic Equity Benchmark



### Risk Adjusted Return Measures vs Domestic Equity Benchmark Rankings Against Fund Spnsr- Domestic Equity (Gross) Seven Years Ended September 30, 2017



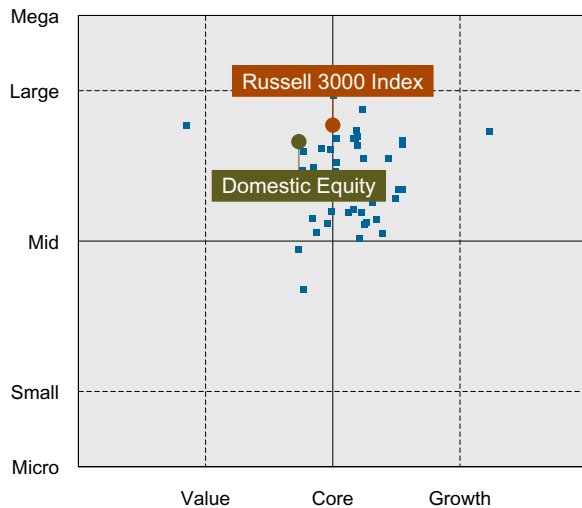
## Current Holdings Based Style Analysis

### Domestic Equity

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

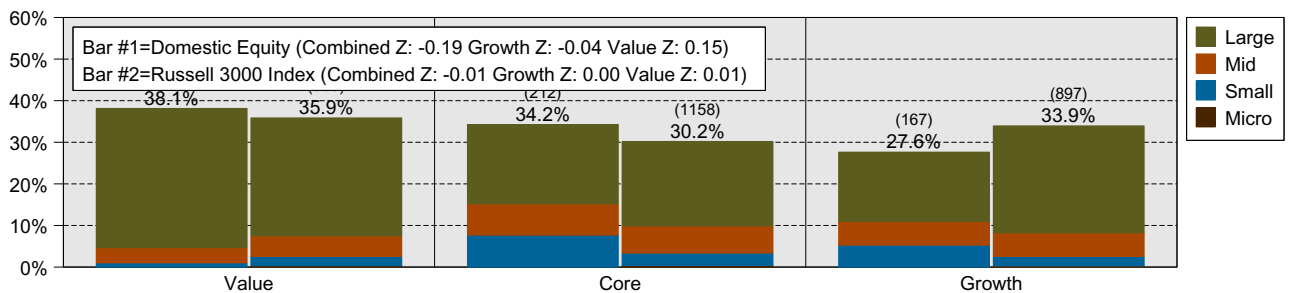
**Style Map vs Plan- Dom Equity**  
Holdings as of September 30, 2017



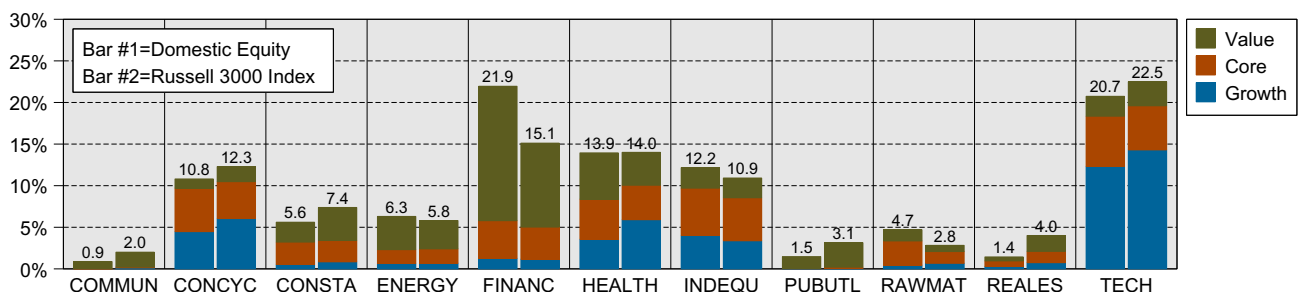
**Style Exposure Matrix**  
Holdings as of September 30, 2017

	Value	Core	Growth	Total
Large	33.5% (114) 28.3% (110)	19.0% (90) 20.3% (88)	16.6% (92) 25.7% (97)	69.1% (296) 74.4% (295)
Mid	3.7% (83) 5.0% (170)	7.5% (93) 6.5% (224)	5.7% (60) 5.7% (197)	17.0% (236) 17.2% (591)
Small	1.0% (8) 2.2% (324)	7.7% (28) 3.0% (476)	5.3% (15) 2.3% (382)	13.9% (51) 7.5% (1182)
Micro	0.0% (0) 0.3% (296)	0.0% (1) 0.4% (370)	0.0% (0) 0.3% (221)	0.0% (1) 1.0% (887)
<b>Total</b>	<b>38.1% (205)</b> <b>35.9% (900)</b>	<b>34.2% (212)</b> <b>30.2% (1158)</b>	<b>27.6% (167)</b> <b>33.9% (897)</b>	<b>100.0% (584)</b> <b>100.0% (2955)</b>

**Combined Z-Score Style Distribution**  
Holdings as of September 30, 2017

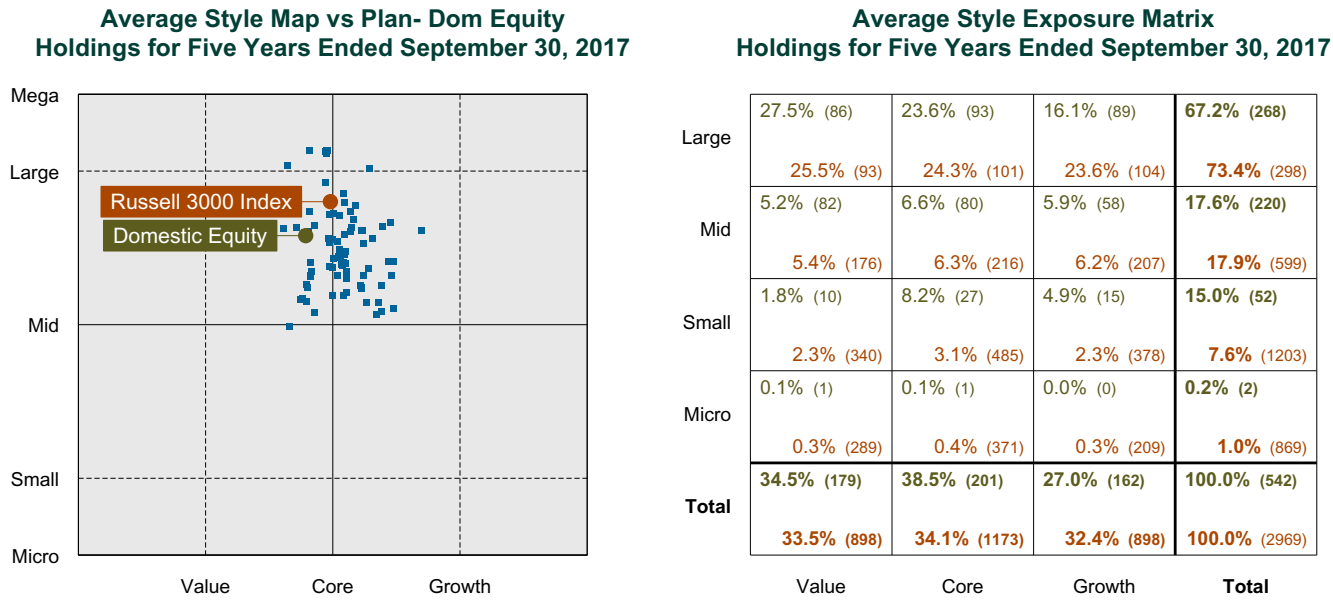


**Sector Weights Distribution**  
Holdings as of September 30, 2017

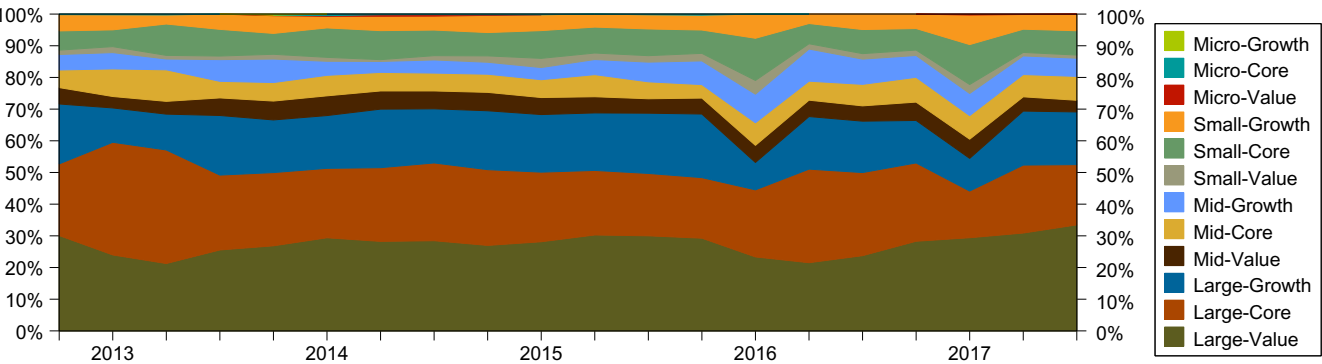


# Historical Holdings Based Style Analysis Domestic Equity For Five Years Ended September 30, 2017

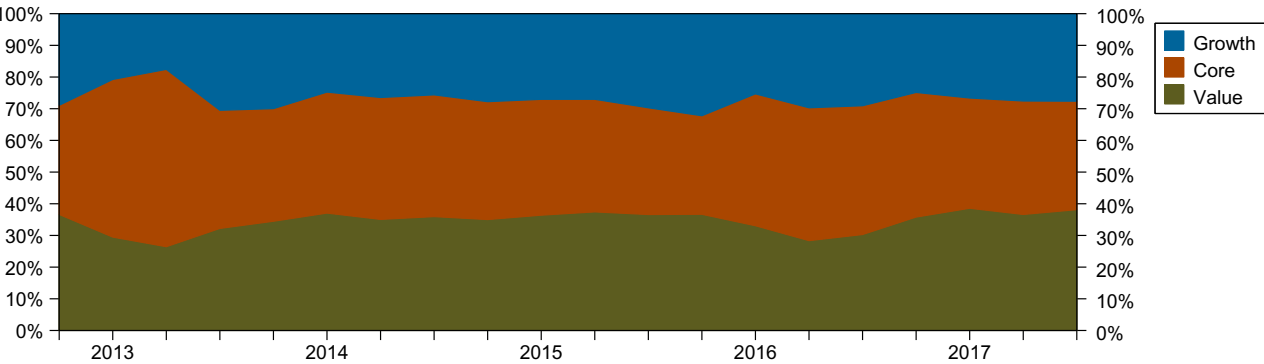
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.



## Domestic Equity Historical Cap/Style Exposures



## Domestic Equity Historical Style Only Exposures

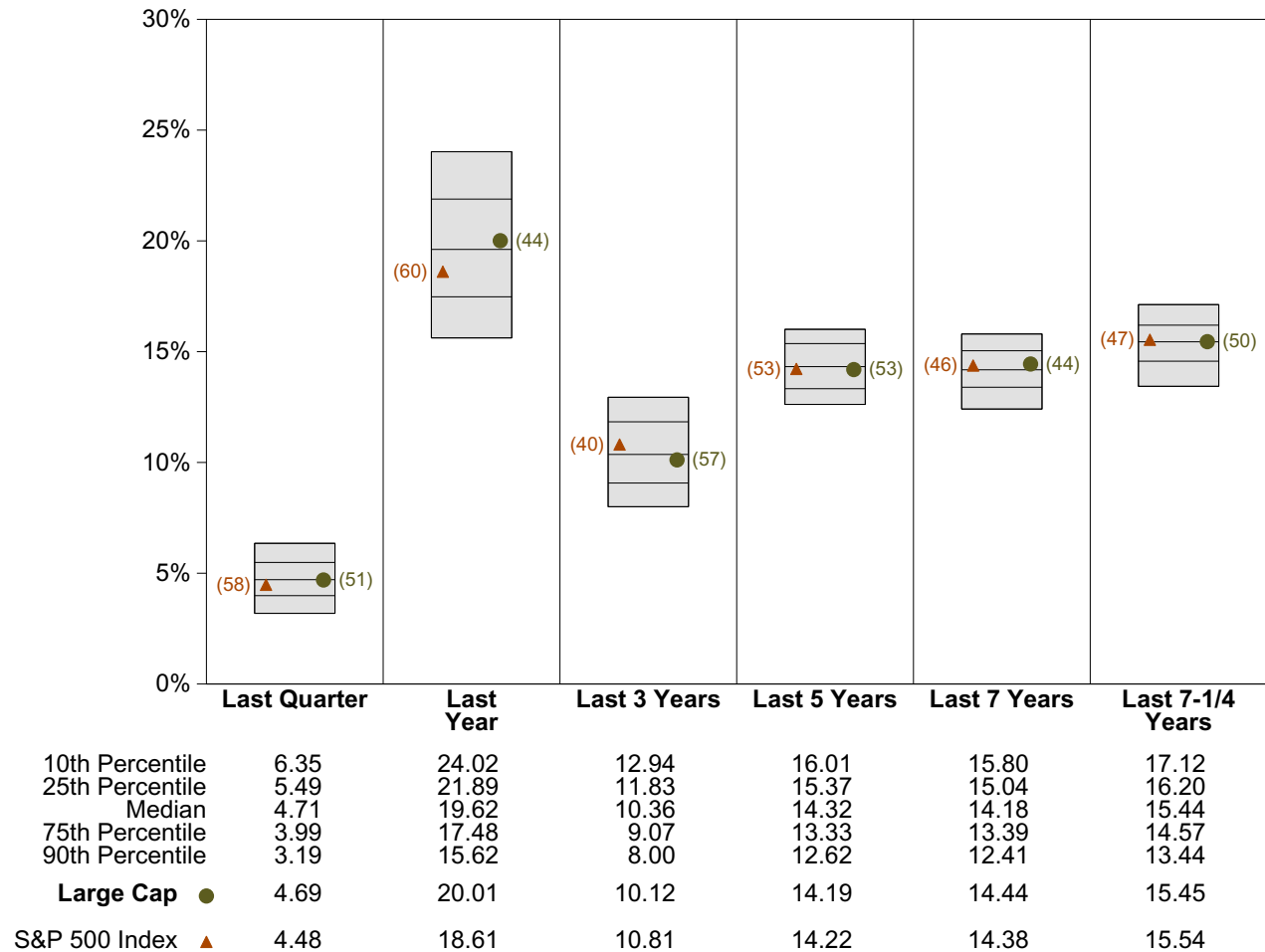


## Large Cap Period Ended September 30, 2017

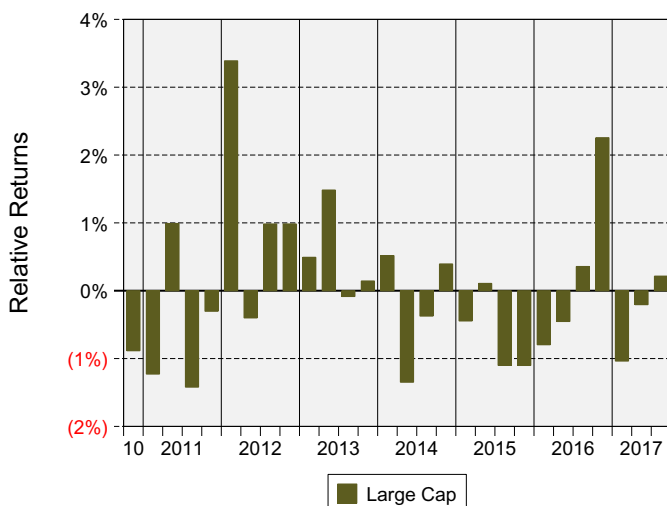
### Quarterly Summary and Highlights

- Large Cap's portfolio posted a 4.69% return for the quarter placing it in the 51 percentile of the Callan Large Capitalization group for the quarter and in the 44 percentile for the last year.
- Large Cap's portfolio outperformed the S&P 500 Index by 0.21% for the quarter and outperformed the S&P 500 Index for the year by 1.40%.

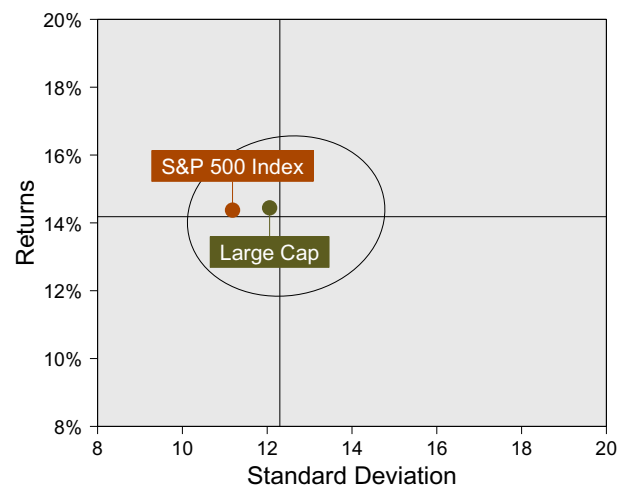
### Performance vs Callan Large Capitalization (Gross)



### Relative Return vs S&P 500 Index



### Callan Large Capitalization (Gross) Annualized Seven Year Risk vs Return

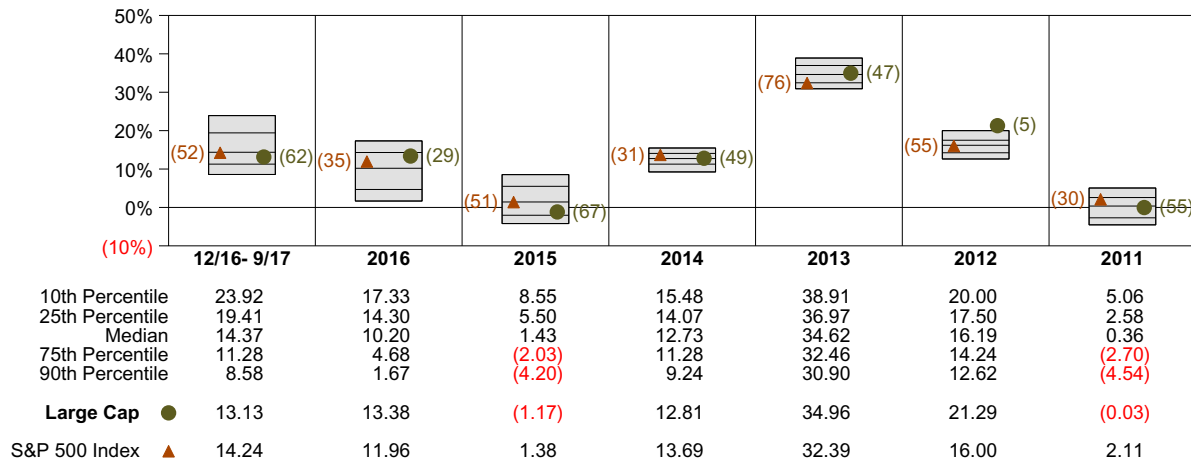


## Large Cap Return Analysis Summary

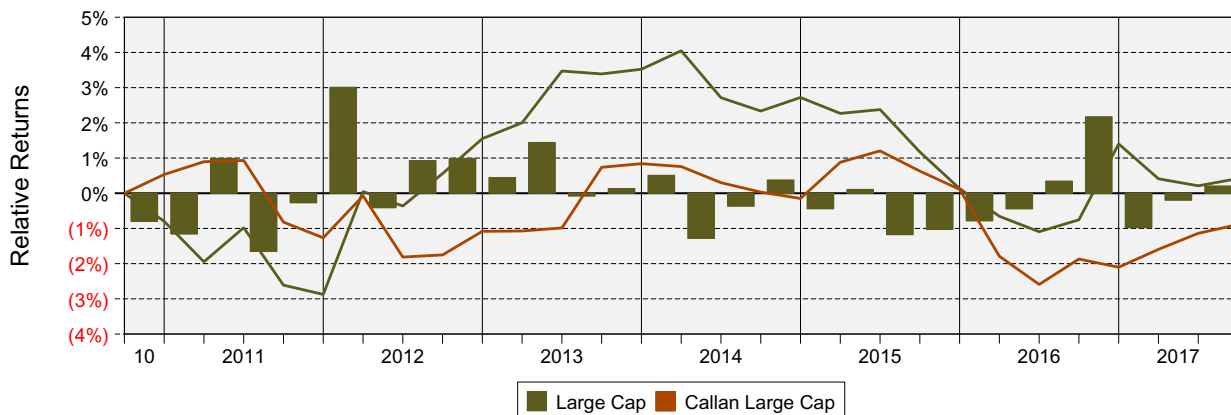
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

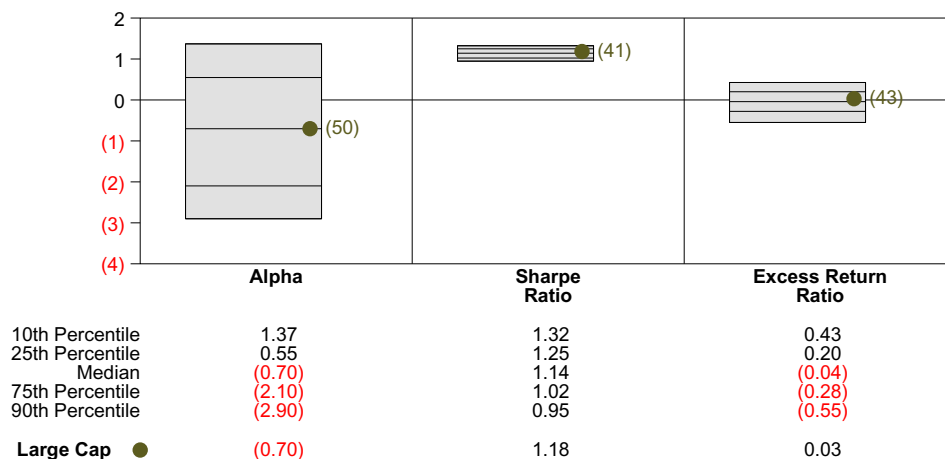
### Performance vs Callan Large Capitalization (Gross)



### Cumulative and Quarterly Relative Return vs S&P 500 Index



### Risk Adjusted Return Measures vs S&P 500 Index Rankings Against Callan Large Capitalization (Gross) Seven Years Ended September 30, 2017





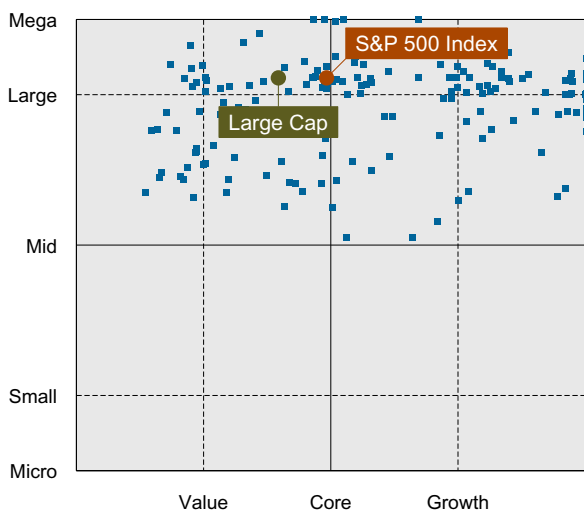
## Current Holdings Based Style Analysis

### Large Cap

As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

**Style Map vs Callan Large Cap Holdings as of September 30, 2017**

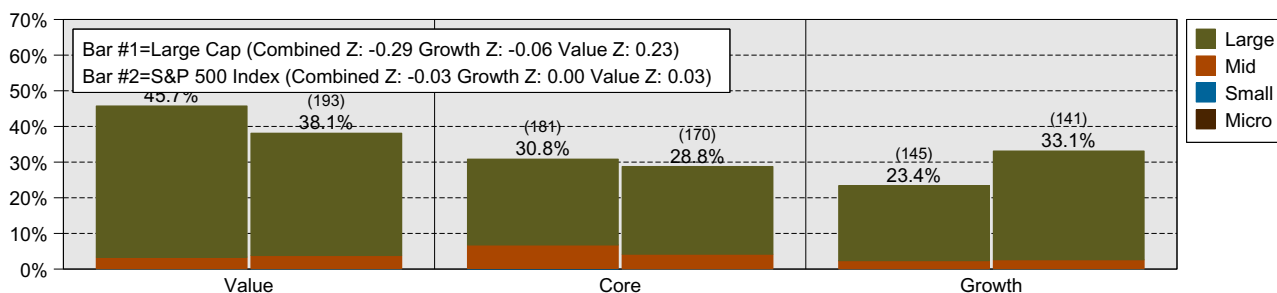


**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Large	42.4% (114) 34.3% (109)	24.1% (90) 24.6% (88)	21.1% (92) 30.5% (90)	87.5% (296) 89.4% (287)
Mid	3.3% (80) 3.7% (80)	6.6% (88) 4.1% (81)	2.3% (51) 2.6% (49)	12.3% (219) 10.5% (210)
Small	0.0% (4) 0.1% (4)	0.2% (2) 0.0% (1)	0.0% (2) 0.0% (2)	0.2% (8) 0.1% (7)
Micro	0.0% (0) 0.0% (0)	0.0% (1) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (1) 0.0% (0)
<b>Total</b>	<b>45.7% (198) 38.1% (193)</b>	<b>30.8% (181) 28.8% (170)</b>	<b>23.4% (145) 33.1% (141)</b>	<b>100.0% (524) 100.0% (504)</b>

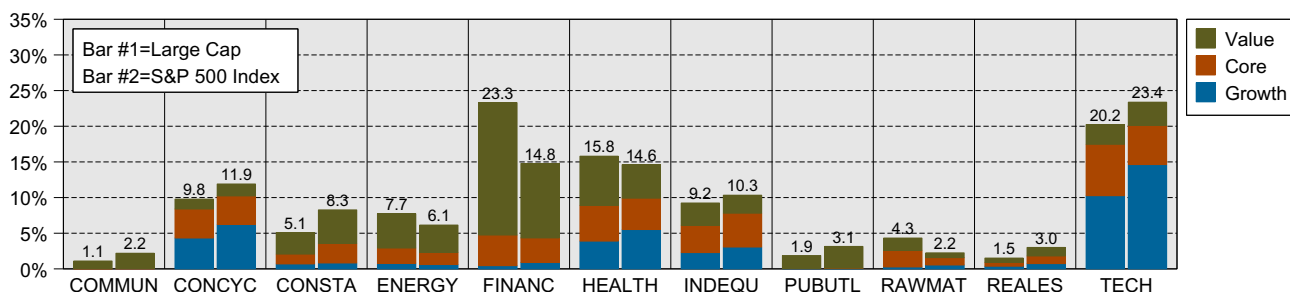
## Combined Z-Score Style Distribution

Holdings as of September 30, 2017



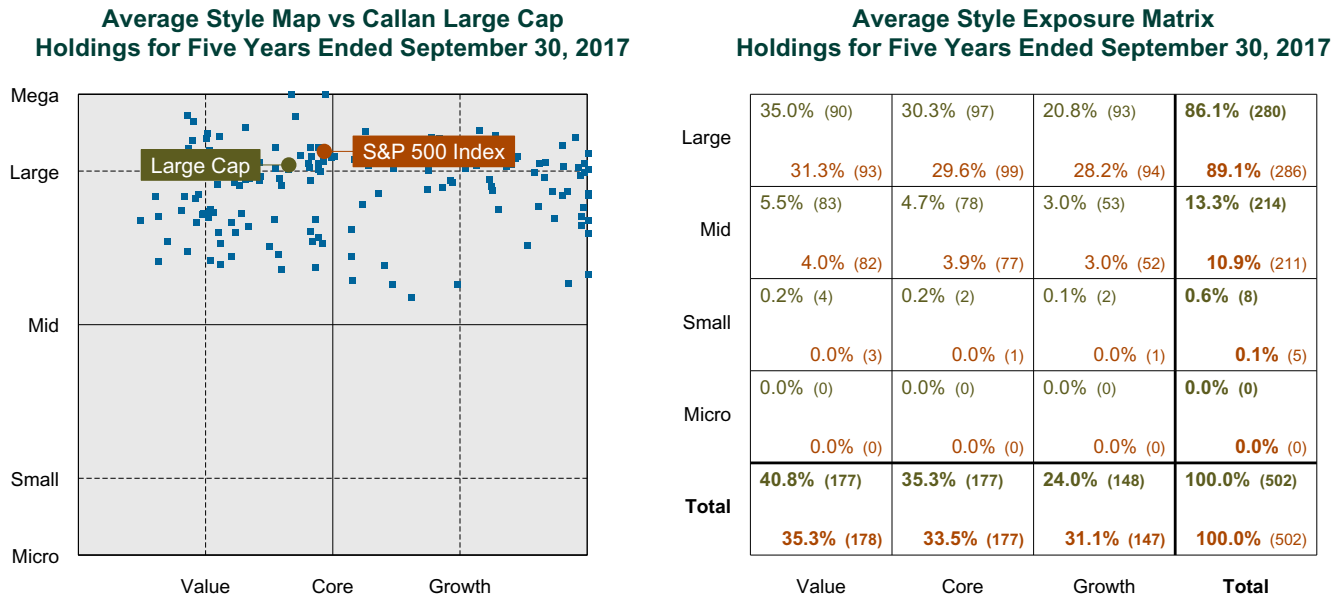
## Sector Weights Distribution

Holdings as of September 30, 2017

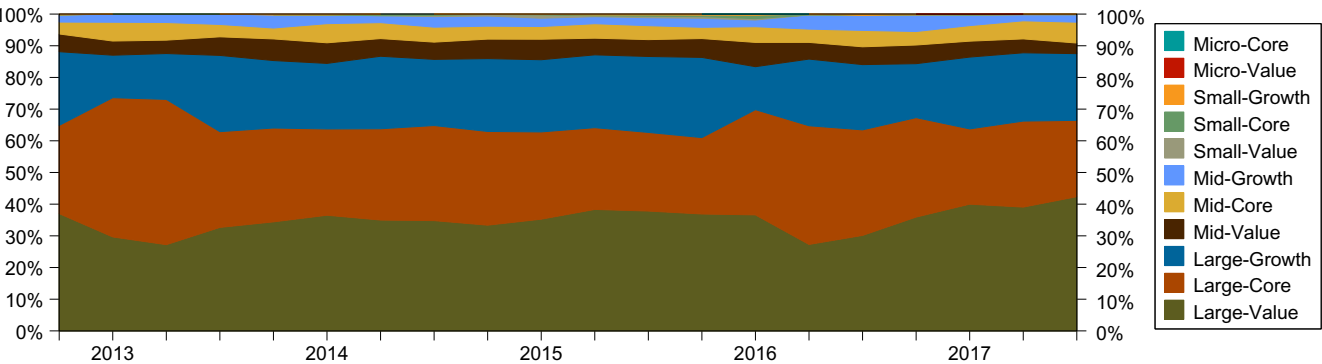


# Historical Holdings Based Style Analysis Large Cap For Five Years Ended September 30, 2017

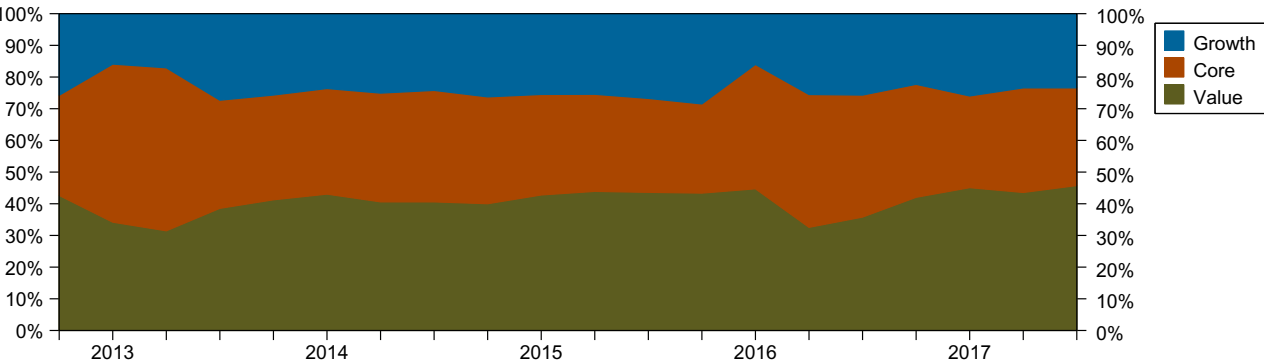
This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.



## Large Cap Historical Cap/Style Exposures



## Large Cap Historical Style Only Exposures



## SSgA S&P 500 Period Ended September 30, 2017

### Investment Philosophy

SSGA believes that their passive investment strategy can provide market-like returns with minimal transaction costs. Returns prior to 6/30/2012 are linked to a composite history.

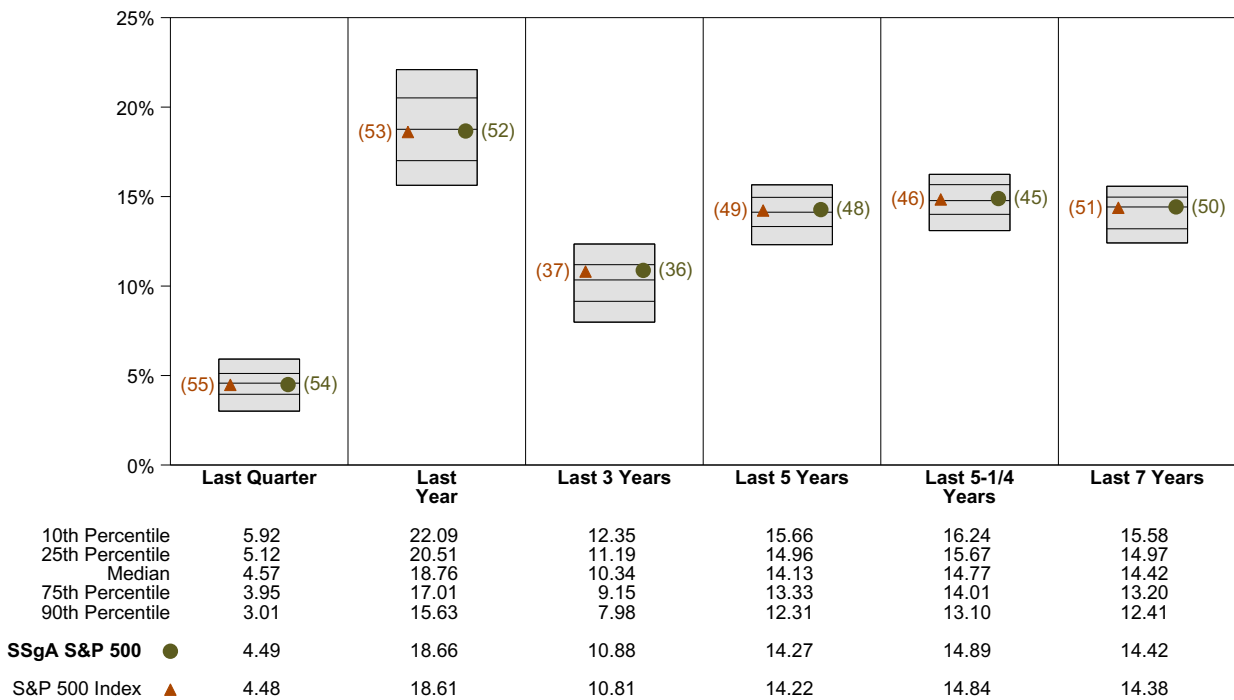
### Quarterly Summary and Highlights

- SSgA S&P 500's portfolio posted a 4.49% return for the quarter placing it in the 54 percentile of the Callan Large Cap Core group for the quarter and in the 52 percentile for the last year.
- SSgA S&P 500's portfolio outperformed the S&P 500 Index by 0.01% for the quarter and outperformed the S&P 500 Index for the year by 0.05%.

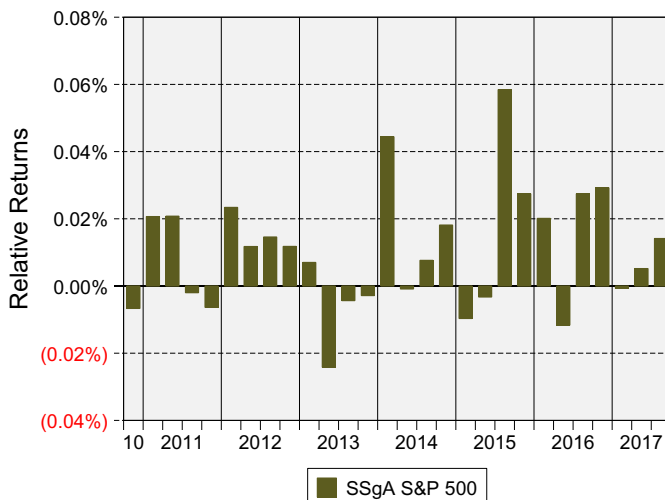
### Quarterly Asset Growth

Beginning Market Value	\$45,559,203
Net New Investment	\$-562,691
Investment Gains/(Losses)	\$2,029,272
Ending Market Value	\$47,025,784

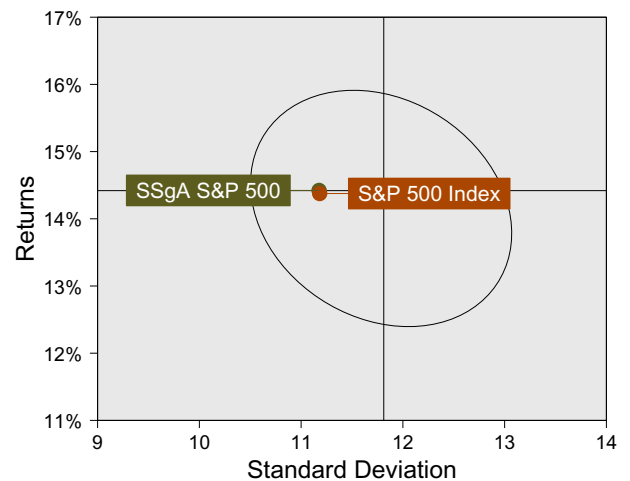
### Performance vs Callan Large Cap Core (Gross)



### Relative Return vs S&P 500 Index



### Callan Large Cap Core (Gross) Annualized Seven Year Risk vs Return

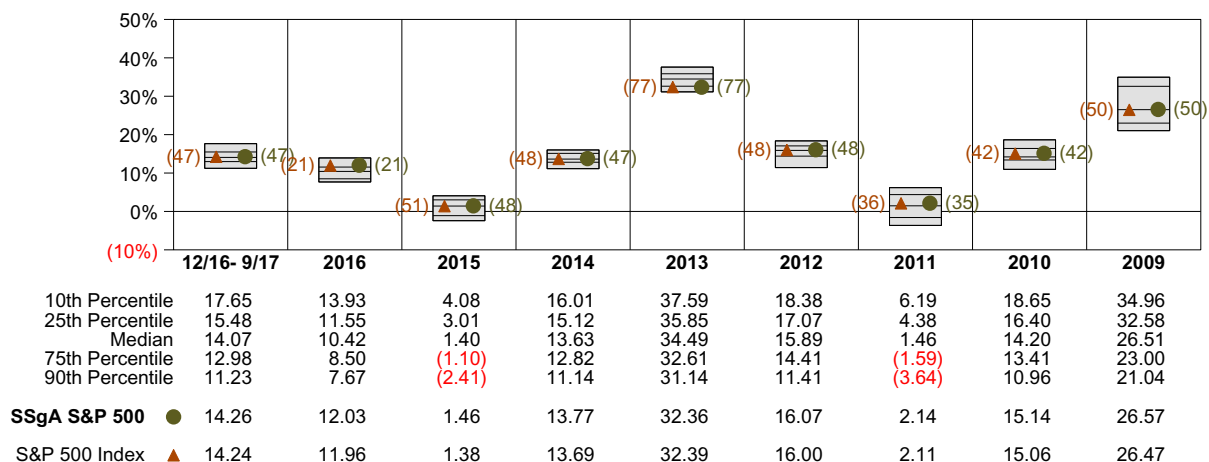


## SSgA S&P 500 Return Analysis Summary

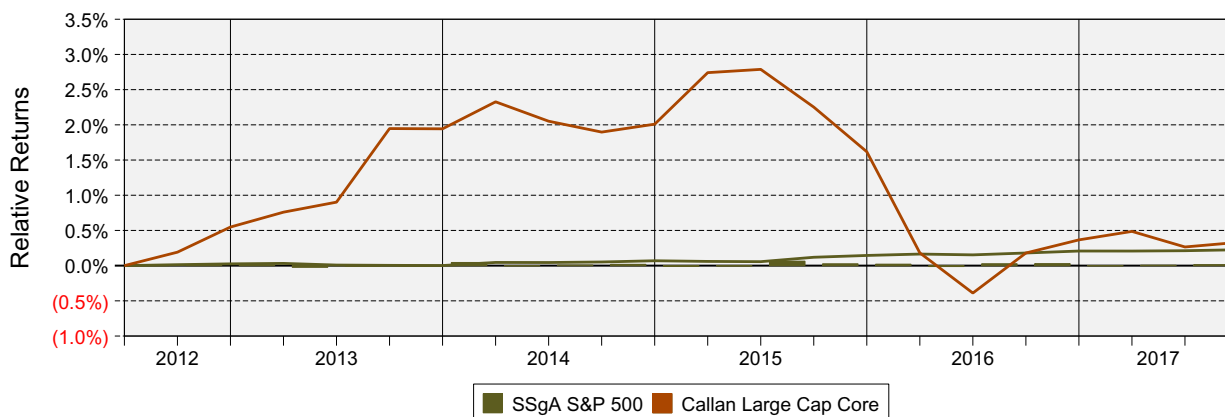
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

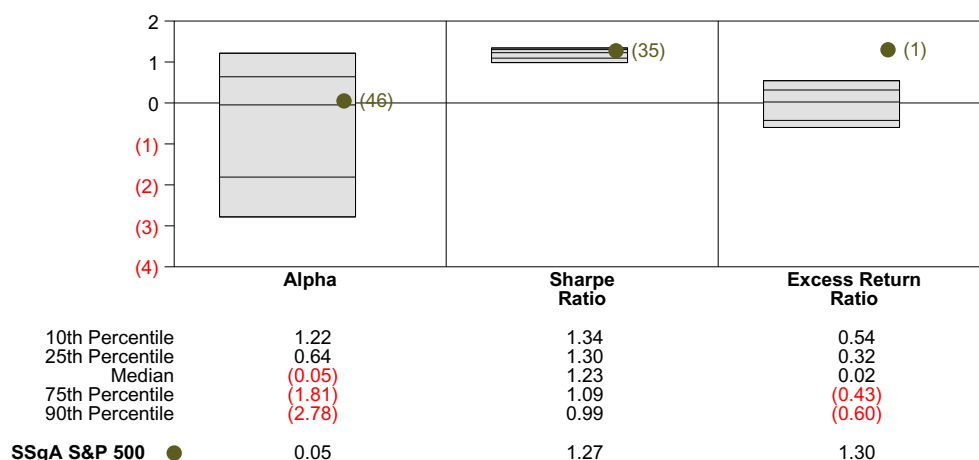
### Performance vs Callan Large Cap Core (Gross)



### Cumulative and Quarterly Relative Return vs S&P 500 Index



### Risk Adjusted Return Measures vs S&P 500 Index Rankings Against Callan Large Cap Core (Gross) Seven Years Ended September 30, 2017

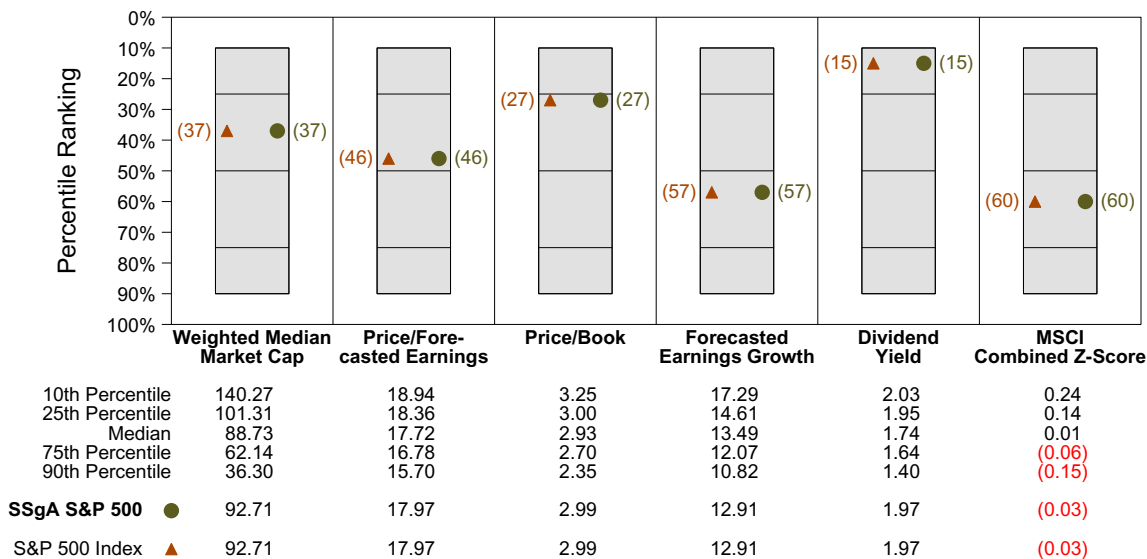


## SSgA S&P 500 Equity Characteristics Analysis Summary

### Portfolio Characteristics

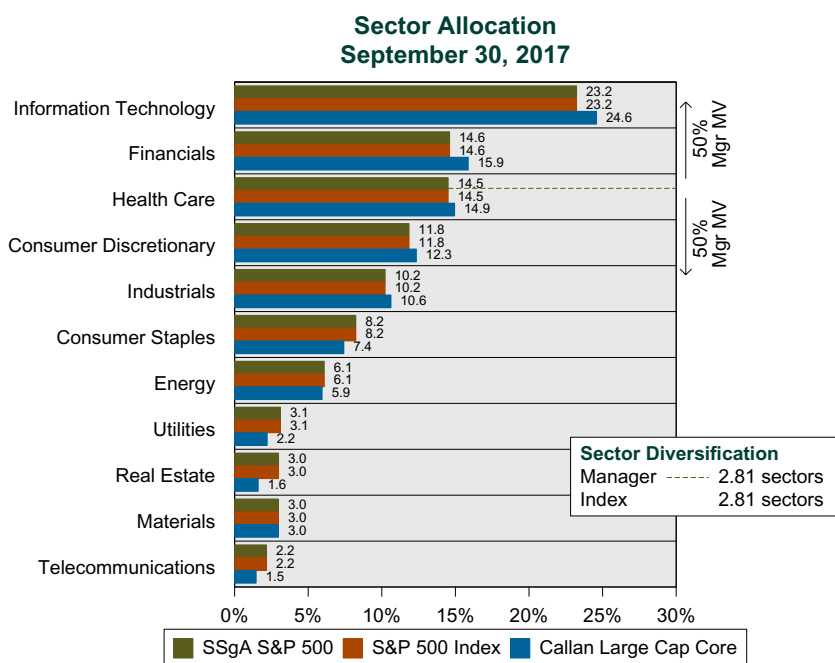
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Core as of September 30, 2017

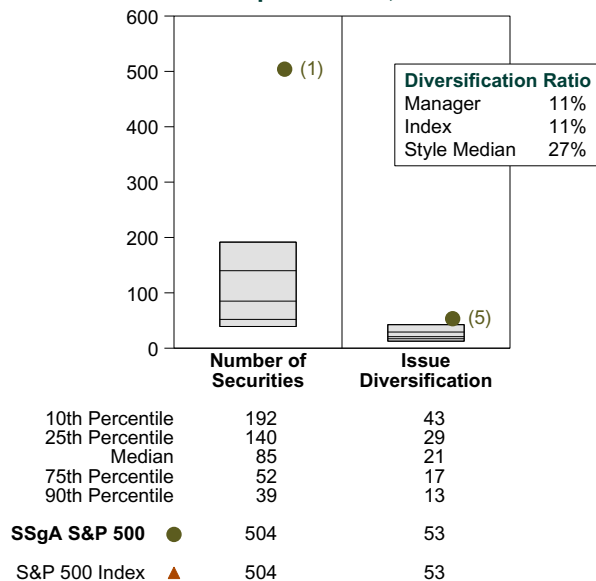


### Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



### Diversification September 30, 2017



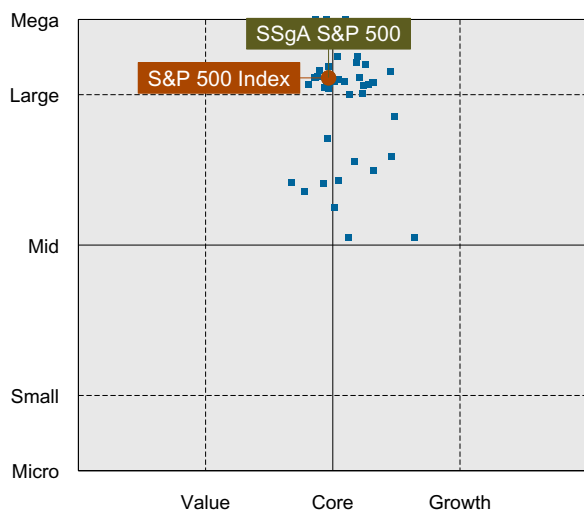
## Current Holdings Based Style Analysis

### SSgA S&P 500

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

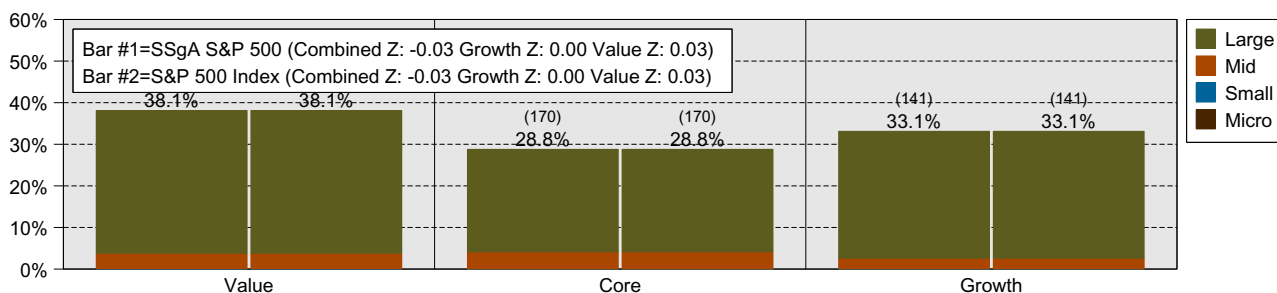
**Style Map vs Callan Large Cap Core Holdings as of September 30, 2017**



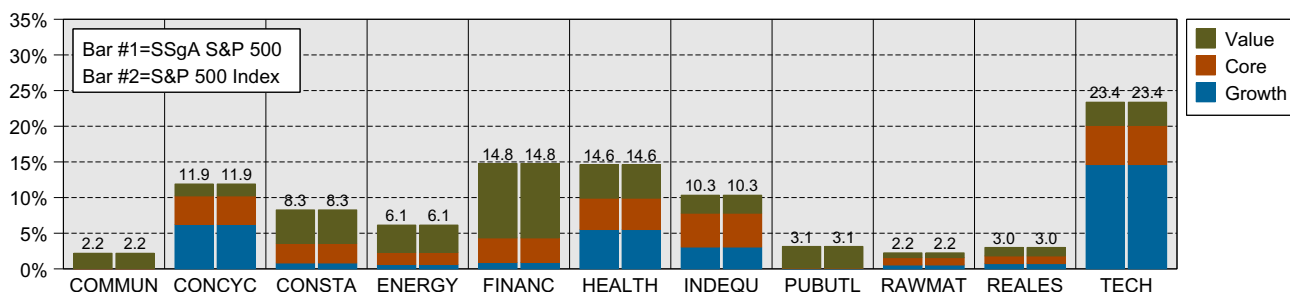
**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Large	34.3% (109)	24.6% (88)	30.5% (90)	89.4% (287)
Mid	3.7% (80)	4.1% (81)	2.6% (49)	10.5% (210)
Small	0.1% (4)	0.0% (1)	0.0% (2)	0.1% (7)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
<b>Total</b>	<b>38.1% (193)</b>	<b>28.8% (170)</b>	<b>33.1% (141)</b>	<b>100.0% (504)</b>

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



**Sector Weights Distribution Holdings as of September 30, 2017**



## Boston Partners Period Ended September 30, 2017

### Investment Philosophy

Boston Partners attempts to implement a disciplined investment process designed to find undervalued securities issued by companies with sound fundamentals and positive business momentum. Boston Partners was funded 6/27/05. The first full quarter for this portfolio is 3rd quarter 2005.

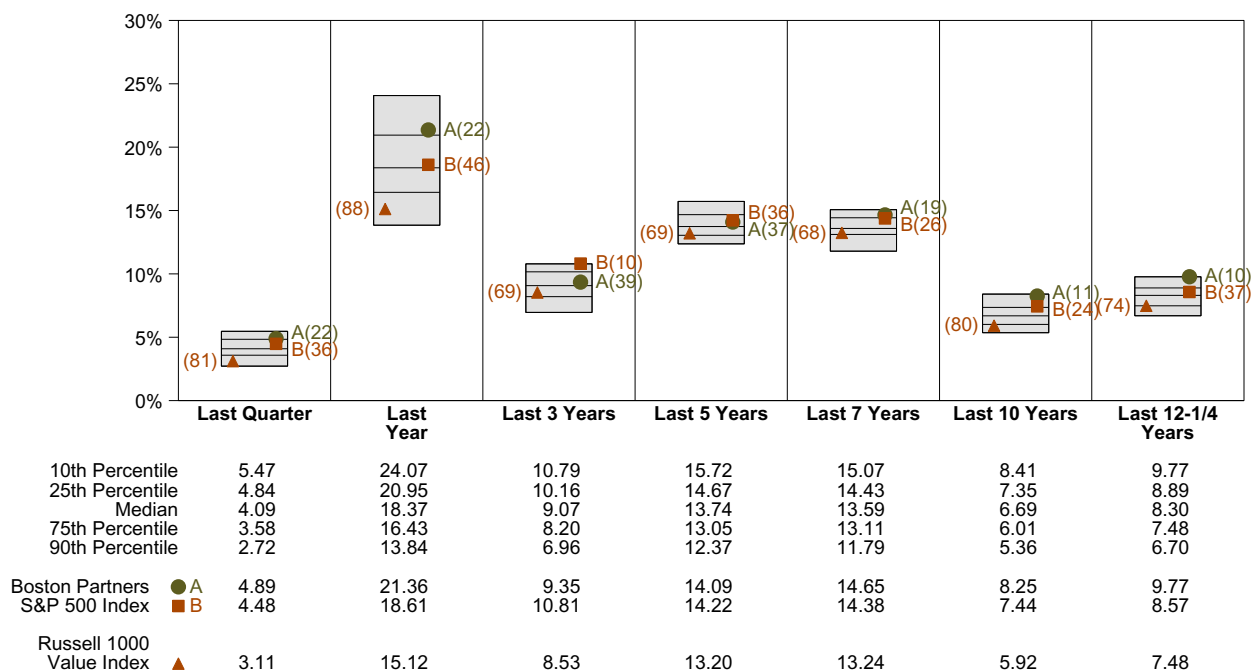
### Quarterly Summary and Highlights

- Boston Partners's portfolio posted a 4.89% return for the quarter placing it in the 22 percentile of the Callan Large Cap Value group for the quarter and in the 22 percentile for the last year.
- Boston Partners's portfolio outperformed the Russell 1000 Value Index by 1.78% for the quarter and outperformed the Russell 1000 Value Index for the year by 6.24%.

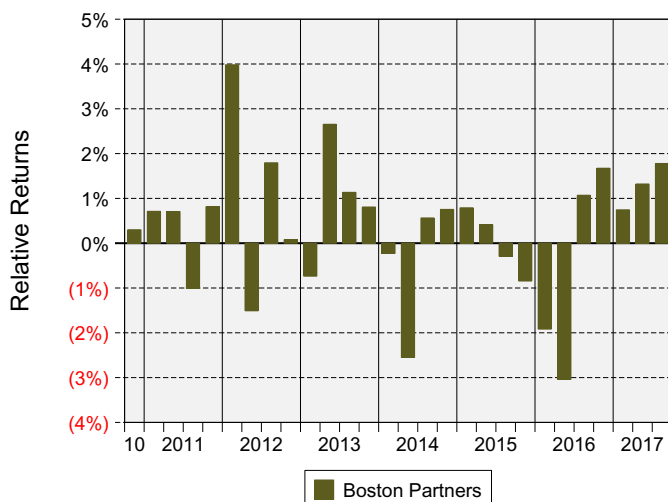
### Quarterly Asset Growth

Beginning Market Value	\$45,850,408
Net New Investment	\$-1,019,591
Investment Gains/(Losses)	\$2,222,387
Ending Market Value	\$47,053,204

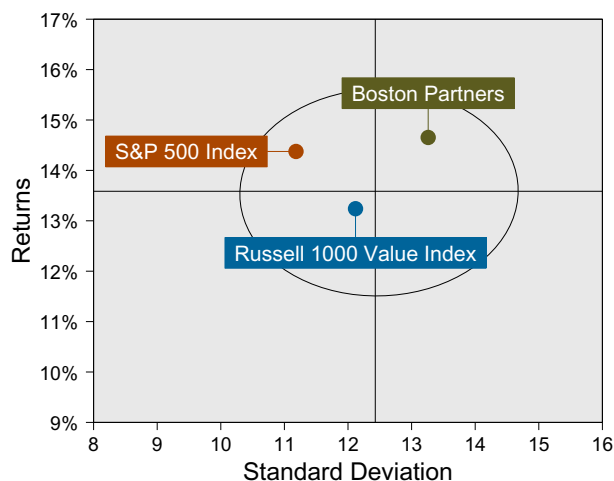
### Performance vs Callan Large Cap Value (Gross)



### Relative Return vs Russell 1000 Value Index



### Callan Large Cap Value (Gross) Annualized Seven Year Risk vs Return

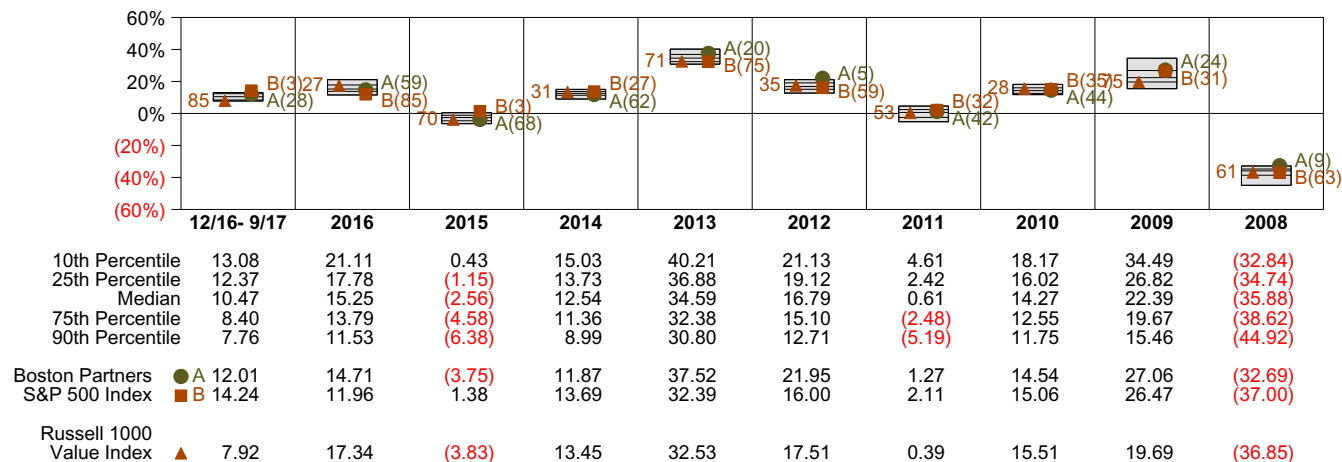


## Boston Partners Return Analysis Summary

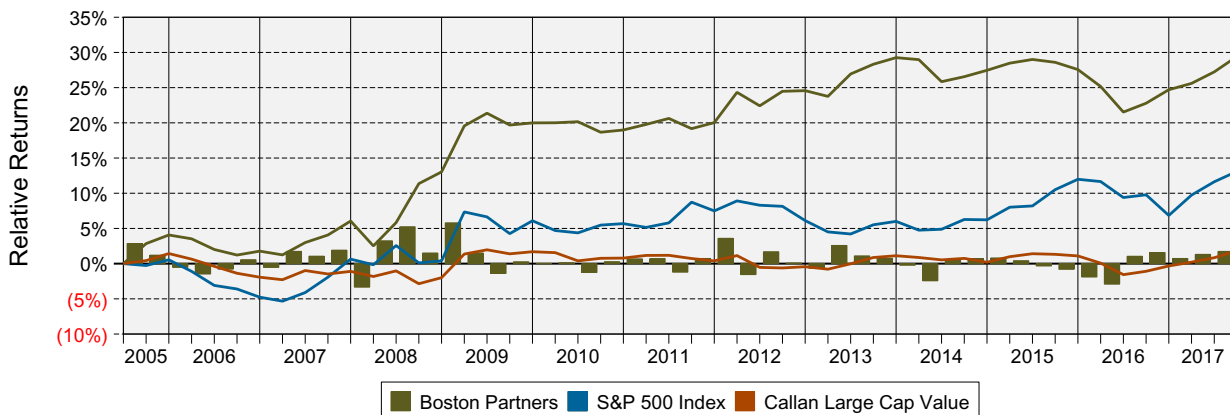
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

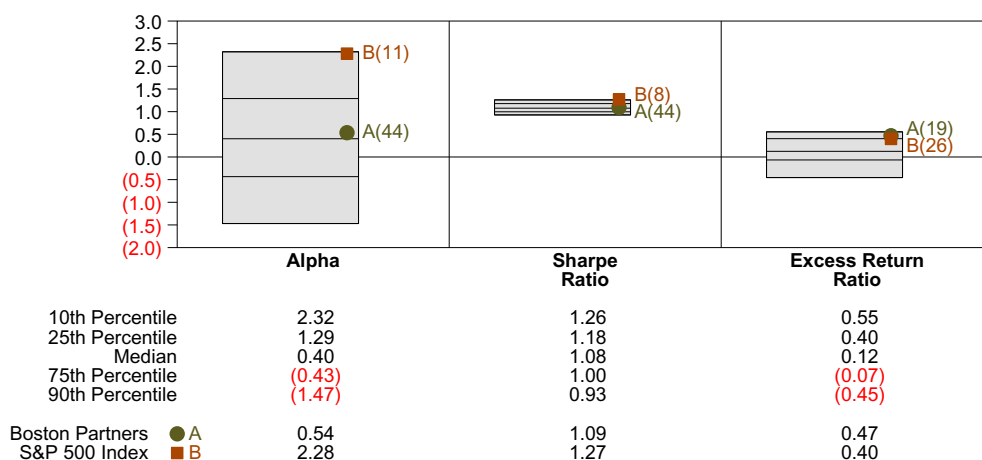
### Performance vs Callan Large Cap Value (Gross)



### Cumulative and Quarterly Relative Return vs Russell 1000 Value Index



### Risk Adjusted Return Measures vs Russell 1000 Value Index Rankings Against Callan Large Cap Value (Gross) Seven Years Ended September 30, 2017



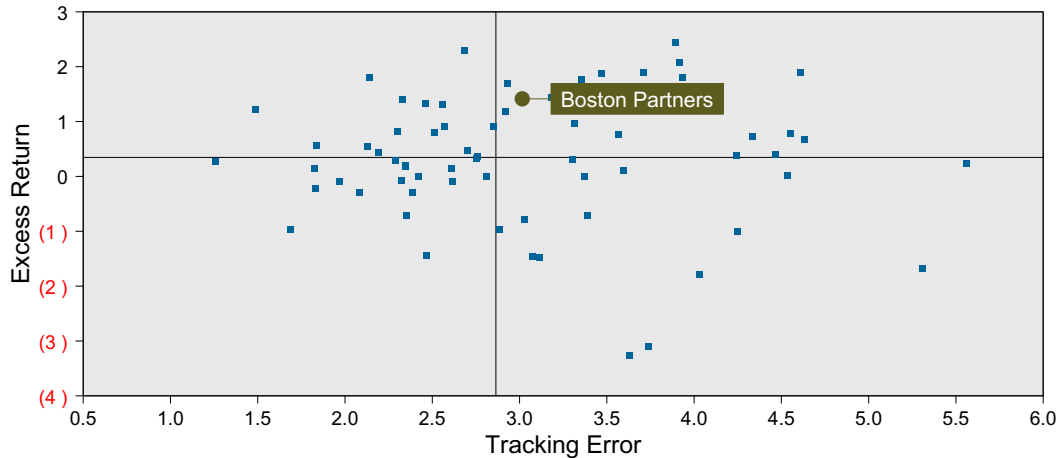


## Boston Partners Risk Analysis Summary

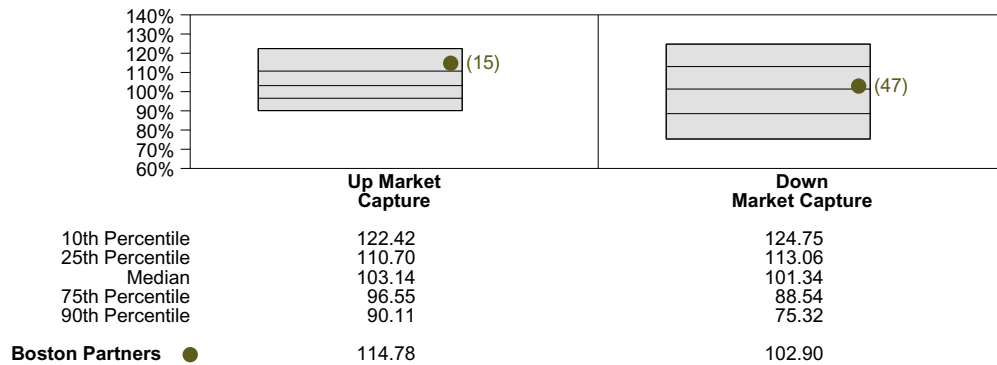
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

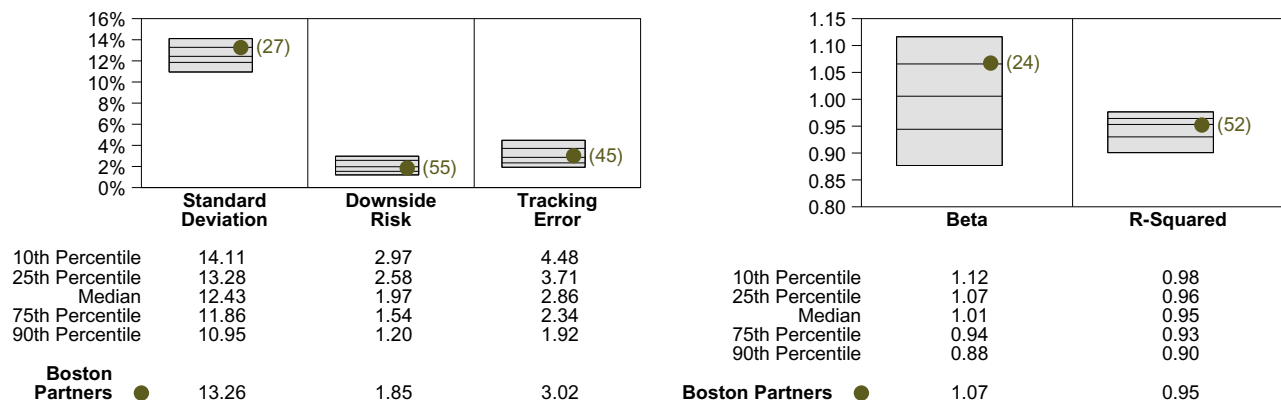
### Risk Analysis vs Callan Large Cap Value (Gross) Seven Years Ended September 30, 2017



### Market Capture vs Russell 1000 Value Index Rankings Against Callan Large Cap Value (Gross) Seven Years Ended September 30, 2017



### Risk Statistics Rankings vs Russell 1000 Value Index Rankings Against Callan Large Cap Value (Gross) Seven Years Ended September 30, 2017

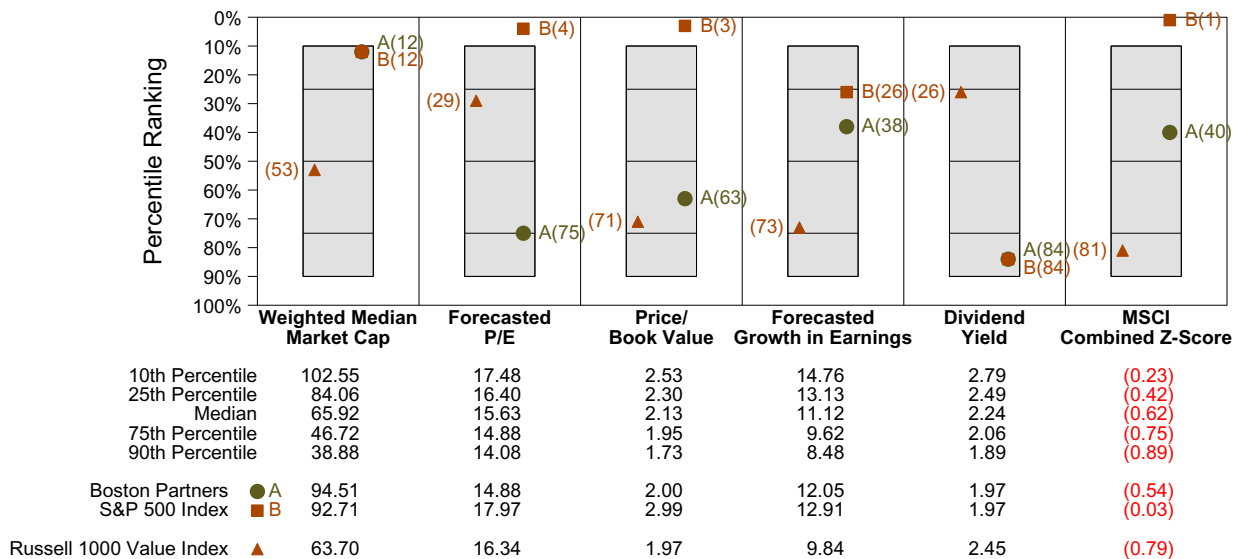


## Boston Partners Equity Characteristics Analysis Summary

### Portfolio Characteristics

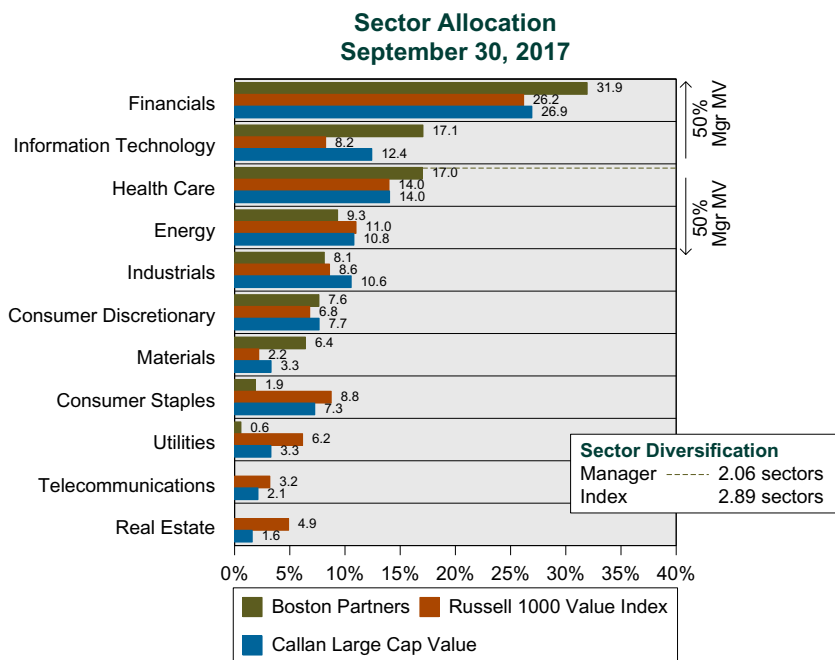
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Large Cap Value as of September 30, 2017

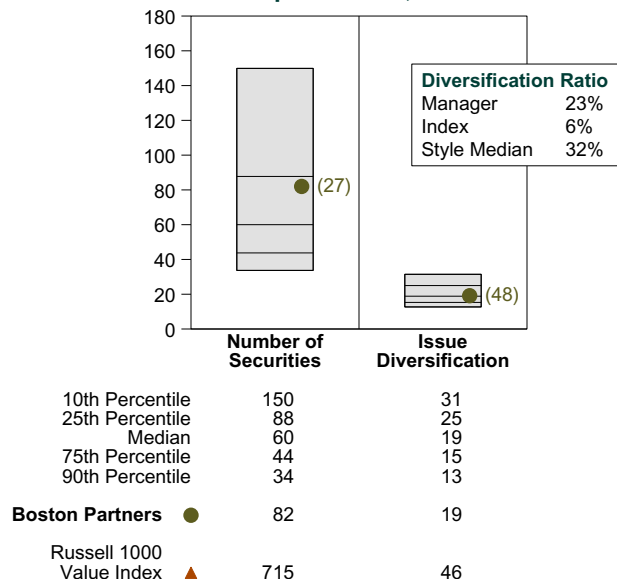


### Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



### Diversification September 30, 2017



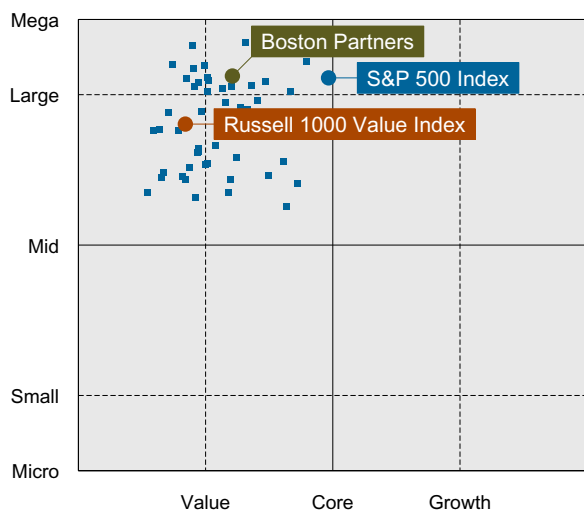
## Current Holdings Based Style Analysis

### Boston Partners

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

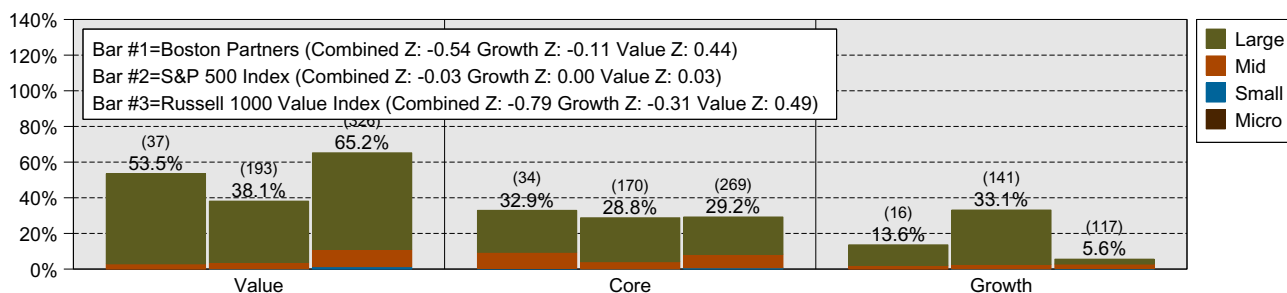
**Style Map vs Callan Large Cap Value Holdings as of September 30, 2017**



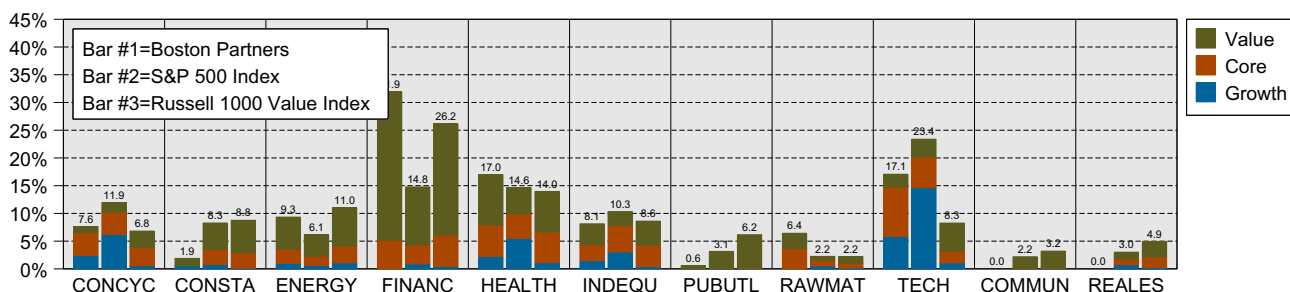
**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Large	50.5% (33) 34.3% (109) 54.2% (106)	23.5% (18) 24.6% (88) 20.8% (68)	11.5% (13) 30.5% (90) 2.7% (25)	85.6% (64) 89.4% (287) 77.8% (199)
Mid	2.9% (4) 3.7% (80) 9.7% (161)	9.1% (14) 4.1% (81) 7.6% (163)	2.1% (3) 2.6% (49) 2.6% (73)	14.1% (21) 10.5% (210) 19.9% (397)
Small	0.0% (0) 0.1% (4) 1.4% (59)	0.3% (1) 0.0% (1) 0.7% (38)	0.0% (0) 0.0% (2) 0.3% (19)	0.3% (1) 0.1% (7) 2.3% (116)
Micro	0.0% (0) 0.0% (0) 0.0% (0)	0.0% (1) 0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0) 0.0% (0)	0.0% (1) 0.0% (0) 0.0% (0)
Total	53.5% (37) 38.1% (193) 65.2% (326)	32.9% (34) 28.8% (170) 29.2% (269)	13.6% (16) 33.1% (141) 5.6% (117)	100.0% (87) 100.0% (504) 100.0% (712)

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



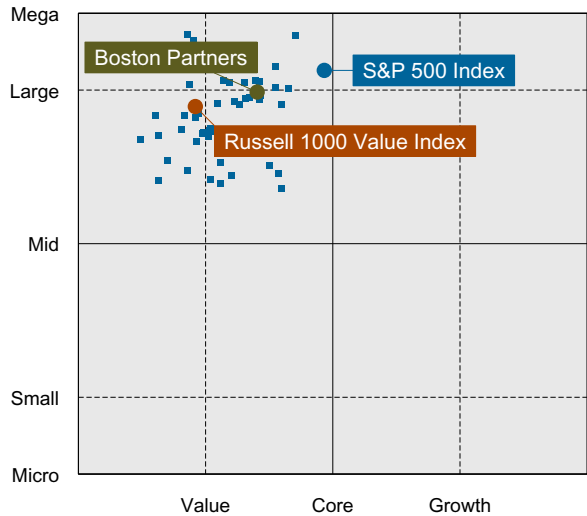
**Sector Weights Distribution Holdings as of September 30, 2017**



# Historical Holdings Based Style Analysis Boston Partners For Five Years Ended September 30, 2017

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

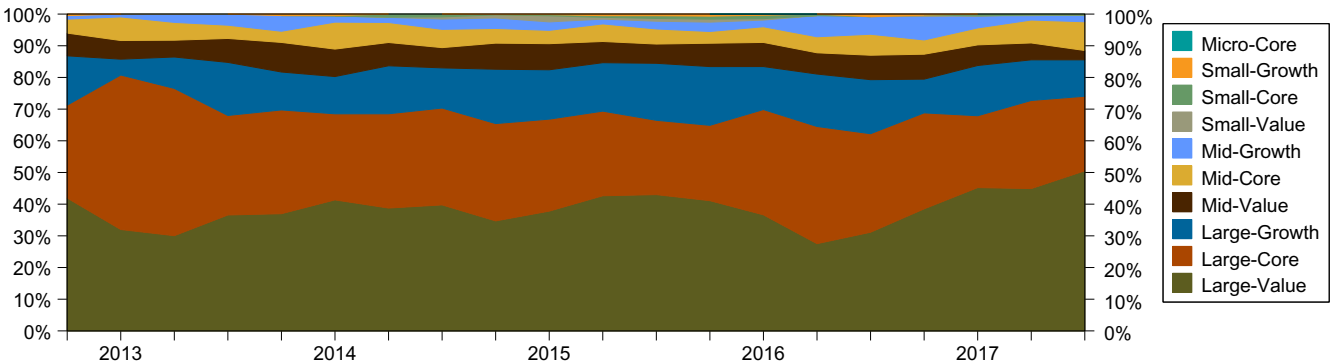
Average Style Map vs Callan Large Cap Value Holdings for Five Years Ended September 30, 2017



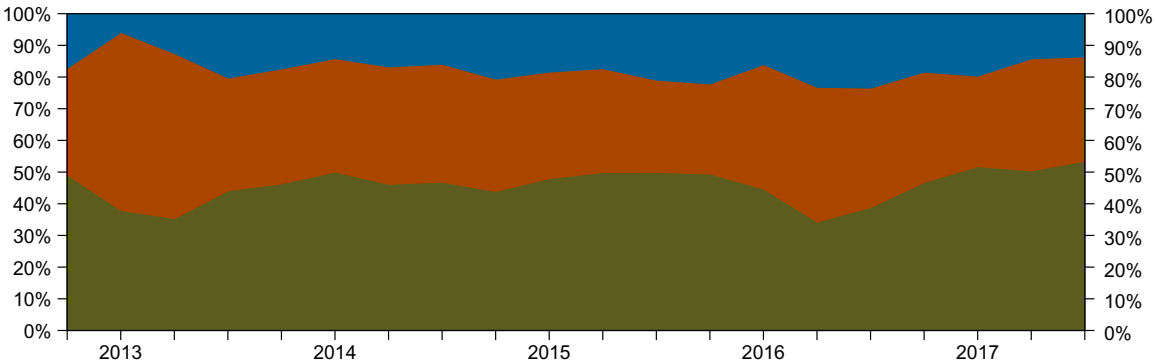
Average Style Exposure Matrix Holdings for Five Years Ended September 30, 2017

Large	38.6% (24)	30.8% (24)	14.1% (14)	83.4% (62)
	31.3% (93)	29.6% (99)	28.2% (94)	89.1% (286)
Mid	49.7% (90)	23.8% (74)	5.0% (30)	78.5% (194)
	6.9% (11)	5.6% (9)	3.1% (5)	15.6% (25)
Small	4.0% (82)	3.9% (77)	3.0% (52)	10.9% (211)
	10.2% (161)	6.6% (146)	2.2% (60)	19.0% (367)
Micro	0.4% (1)	0.4% (1)	0.2% (1)	1.0% (3)
	0.0% (3)	0.0% (1)	0.0% (1)	0.1% (5)
Total	1.4% (62)	0.9% (48)	0.2% (15)	2.5% (125)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (1)	0.0% (1)	0.0% (0)	0.0% (2)
Total	45.9% (36)	36.7% (34)	17.4% (20)	100.0% (90)
	35.3% (178)	33.5% (177)	31.1% (147)	100.0% (502)
Total	61.3% (314)	31.3% (269)	7.4% (105)	100.0% (688)
	Value	Core	Growth	Total

Boston Partners Historical Cap/Style Exposures



Boston Partners Historical Style Only Exposures

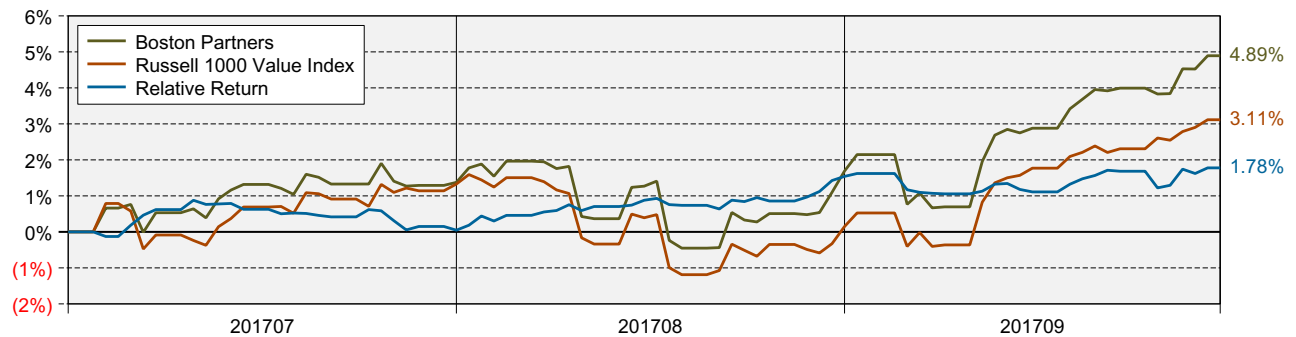


## Boston Partners vs Russell 1000 Value Index Domestic Equity Daily Performance Attribution One Quarter Ended September 30, 2017

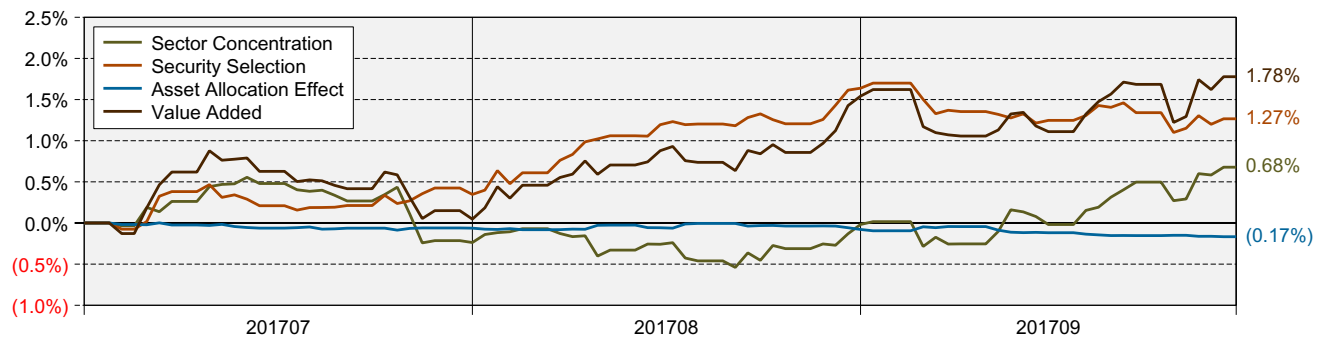
### Return Sources and Timing

The charts below illustrate the timing and cumulative paths of the manager's performance, as well as attributing relative performance to three sources: Sector Concentration, Security Selection, and Asset Allocation. The first chart shows the cumulative absolute return paths for the manager and index. The second chart shows the cumulative relative return path of the manager and the attributed sources of that value-added. The bottom table breaks the annualized attribution factors down to the sector level for more insight into sources of return.

### Cumulative Manager and Benchmark Returns



### Cumulative Attribution Effects vs. Russell 1000 Value Index



### Attribution Effects by Sector vs. Russell 1000 Value Index One Quarter Ended September 30, 2017

Sector	Manager Eff Weight	Index Eff Weight	Manager Return	Index Return	Sector Concentration	Security Selection	Asset Allocation
Consumer Discretionary	8.22%	6.92%	1.81%	1.69%	(0.01)%	0.01%	-
Consumer Staples	1.89%	9.14%	2.28%	(0.53)%	0.26%	0.06%	-
Energy	8.34%	10.47%	10.11%	6.91%	(0.08)%	0.24%	-
Financials	31.43%	25.59%	4.87%	4.83%	0.09%	0.02%	-
Health Care	17.08%	14.18%	4.19%	0.25%	(0.07)%	0.67%	-
Industrials	8.77%	8.58%	2.28%	0.80%	0.00%	0.12%	-
Information Technology	17.06%	8.12%	7.29%	5.21%	0.17%	0.36%	-
Materials	6.60%	2.57%	5.30%	8.33%	0.20%	(0.20)%	-
Real Estate	0.00%	5.00%	0.00%	(0.09)%	0.16%	0.00%	-
Telecommunications	0.00%	3.16%	0.00%	5.10%	(0.06)%	0.00%	-
Utilities	0.61%	6.26%	0.25%	2.78%	0.02%	(0.02)%	-
Non Equity	3.27%	0.00%	-	-	-	-	(0.17)%
Total	-	-	4.89%	3.11%	0.68%	1.27%	(0.17)%

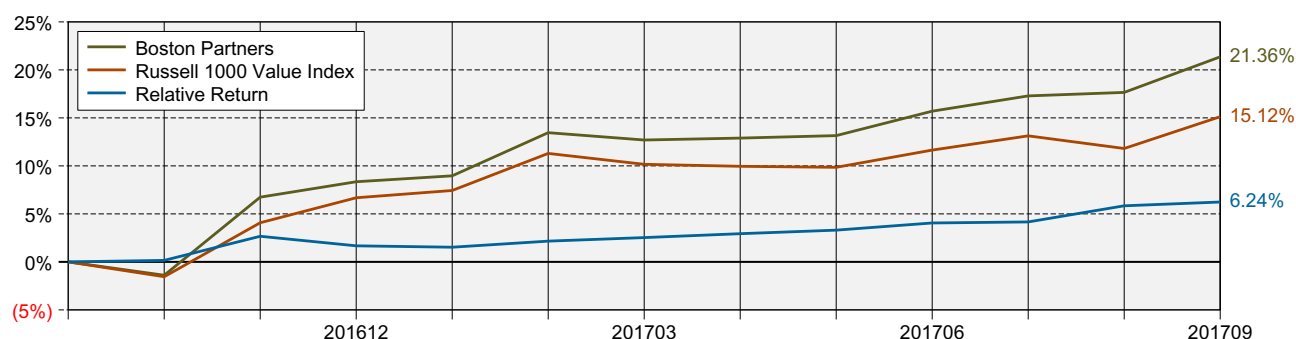
<b>Manager Return</b>	=	<b>Index Return</b>	+	<b>Sector Concentration</b>	+	<b>Security Selection</b>	+	<b>Asset Allocation</b>
4.89%		3.11%		0.68%		1.27%		(0.17)%

# Boston Partners vs Russell 1000 Value Index Domestic Equity Daily Performance Attribution One Year Ended September 30, 2017

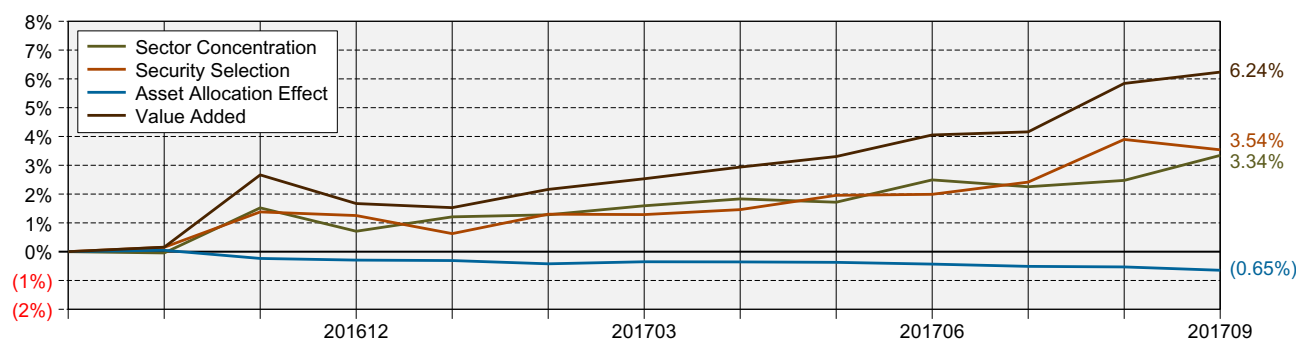
## Return Sources and Timing

The charts below illustrate the timing and cumulative paths of the manager's performance, as well as attributing relative performance to three sources: Sector Concentration, Security Selection, and Asset Allocation. The first chart shows the cumulative absolute return paths for the manager and index. The second chart shows the cumulative relative return path of the manager and the attributed sources of that value-added. The bottom table breaks the annualized attribution factors down to the sector level for more insight into sources of return.

## Cumulative Manager and Benchmark Returns



## Cumulative Attribution Effects vs. Russell 1000 Value Index



## Attribution Effects by Sector vs. Russell 1000 Value Index One Year Ended September 30, 2017

Sector	Manager Eff Weight	Index Eff Weight	Manager Return	Index Return	Sector Concentration	Security Selection	Asset Allocation
Consumer Discretionary	8.06%	5.15%	16.00%	12.62%	(0.01)%	0.14%	-
Consumer Staples	1.72%	8.63%	0.54%	5.30%	0.62%	(0.18)%	-
Energy	10.71%	12.17%	5.48%	(0.27)%	0.14%	0.55%	-
Financials	28.31%	25.86%	34.55%	35.55%	0.47%	(0.20)%	-
Health Care	16.15%	11.77%	12.93%	10.56%	0.08%	0.37%	-
Industrials	8.68%	9.64%	28.95%	17.32%	(0.00)%	0.97%	-
Information Technology	18.38%	9.40%	29.66%	17.18%	0.34%	2.14%	-
Materials	7.10%	2.80%	22.90%	23.57%	0.28%	(0.03)%	-
Real Estate	0.01%	4.78%	(4.97)%	(0.38)%	0.80%	0.00%	-
Telecommunications	0.10%	3.54%	(6.42)%	0.30%	0.48%	0.00%	-
Utilities	0.77%	6.27%	(10.61)%	11.96%	0.15%	(0.24)%	-
Non Equity	2.91%	0.00%	-	-	-	-	(0.65)%
Total	-	-	21.36%	15.12%	3.34%	3.54%	(0.65)%

<b>Manager Return</b>	=	<b>Index Return</b>	+	<b>Sector Concentration</b>	+	<b>Security Selection</b>	+	<b>Asset Allocation</b>
21.36%		15.12%		3.34%		3.54%		(0.65)%

# Boston Partners vs Russell 1000 Value Index

## Domestic Equity Top 10 Contribution Holdings

### One Quarter Ended September 30, 2017

#### Manager Holdings with Largest (+ or -) Contribution to Performance

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Manager Perf	Contrib Excess Return
Chevron Corp New	Energy	2.87%	92	1.71%	13.62%	13.76%	0.40%	0.12%
Citigroup Inc	Financials	3.77%	92	1.58%	9.27%	9.27%	0.34%	0.13%
Berkshire Hathaway Inc Del Cl B New	Financials	3.84%	92	2.85%	8.24%	8.24%	0.31%	0.05%
Gilead Sciences	Health Care	1.92%	92	0.24%	15.18%	15.19%	0.26%	0.17%
JPMorgan Chase & Co	Financials	4.79%	92	2.73%	5.06%	5.06%	0.24%	0.04%
Bank Amer Corp	Financials	4.55%	92	2.03%	4.98%	4.98%	0.23%	0.05%
Borgwarner Inc	Consumer Discretionary	1.09%	92	0.07%	21.32%	21.32%	0.22%	0.17%
Cisco Sys Inc	Information Technology	2.19%	92	1.34%	8.45%	8.45%	0.18%	0.04%
Pfizer	Health Care	2.09%	92	1.68%	7.23%	7.31%	0.16%	0.02%
Dxc Technology Co	Information Technology	1.34%	92	-	12.18%	-	0.16%	0.11%

#### Index Holdings with Largest (+ or -) Contribution to Performance

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Index Perf	Contrib Excess Return
Chevron Corp New	Energy	2.87%	92	1.71%	13.62%	13.76%	0.23%	0.12%
Berkshire Hathaway Inc Del Cl B New	Financials	3.84%	92	2.85%	8.24%	8.24%	0.23%	0.05%
Intel Corp	Information Technology	-	-	1.38%	-	13.71%	0.19%	(0.14)%
General Electric Co	Industrials	-	-	1.56%	-	(9.58)%	(0.16)%	0.21%
Citigroup Inc	Financials	3.77%	92	1.58%	9.27%	9.27%	0.14%	0.13%
JPMorgan Chase & Co	Financials	4.79%	92	2.73%	5.06%	5.06%	0.14%	0.04%
Pfizer	Health Care	2.09%	92	1.68%	7.23%	7.31%	0.12%	0.02%
Cisco Sys Inc	Information Technology	2.19%	92	1.34%	8.45%	8.45%	0.11%	0.04%
Medtronic Plc Shs	Health Care	-	-	0.91%	-	(11.40)%	(0.11)%	0.14%
Allergan Plc Shs	Health Care	-	-	0.69%	-	(15.43)%	(0.11)%	0.13%

#### Positions with Largest Positive Contribution to Excess Return

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Manager Perf	Contrib Excess Return
General Electric Co	Industrials	-	-	1.56%	-	(9.58)%	-	0.21%
Borgwarner Inc	Consumer Discretionary	1.09%	92	0.07%	21.32%	21.32%	0.22%	0.17%
Gilead Sciences	Health Care	1.92%	92	0.24%	15.18%	15.19%	0.26%	0.17%
Medtronic Plc Shs	Health Care	-	-	0.91%	-	(11.40)%	-	0.14%
Citigroup Inc	Financials	3.77%	92	1.58%	9.27%	9.27%	0.34%	0.13%
Allergan Plc Shs	Health Care	-	-	0.69%	-	(15.43)%	-	0.13%
Chevron Corp New	Energy	2.87%	92	1.71%	13.62%	13.76%	0.40%	0.12%
Dxc Technology Co	Information Technology	1.34%	92	-	12.18%	-	0.16%	0.11%
Philip Morris Intl Inc	Consumer Staples	-	-	1.40%	-	(4.58)%	-	0.11%
Koninklijke Philips N V Ny Reg Sh N	Industrials	0.90%	92	-	14.99%	-	0.14%	0.10%

#### Positions with Largest Negative Contribution to Excess Return

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Manager Perf	Contrib Excess Return
Intel Corp	Information Technology	-	-	1.38%	-	13.71%	-	(0.14)%
Interpublic Group of Cos	Consumer Discretionary	0.56%	56	0.01%	(17.87)%	(14.72)%	(0.12)%	(0.12)%
United Contl Hldgs Inc Com	Industrials	0.48%	87	0.16%	(21.78)%	(19.10)%	(0.13)%	(0.10)%
Twenty First Centy Fox Inc Cl A	Consumer Discretionary	1.19%	92	0.24%	(6.27)%	(6.27)%	(0.07)%	(0.09)%
Delta Air Lines Inc Del	Industrials	0.93%	92	0.29%	(9.70)%	(9.70)%	(0.10)%	(0.09)%
Southwest Aircls Co	Industrials	0.55%	92	-	(9.50)%	-	(0.06)%	(0.07)%
Verizon Communications Inc	Telecommunications	-	-	0.81%	-	12.29%	-	(0.07)%
Cbs Corp New Cl B	Consumer Discretionary	0.57%	92	-	(8.79)%	-	(0.05)%	(0.07)%
Oracle Corp	Information Technology	2.09%	92	1.12%	(3.30)%	(3.21)%	(0.07)%	(0.07)%
Steel Dynamics Inc	Materials	0.90%	92	0.06%	(3.31)%	(3.31)%	(0.03)%	(0.05)%

# Atlanta Capital Period Ended September 30, 2017

## Investment Philosophy

Atlanta believes that high quality companies produce consistently increasing earnings and dividends, thereby providing attractive returns with moderate risk over the long-term. Returns prior to 6/30/2010 are linked to a composite history.

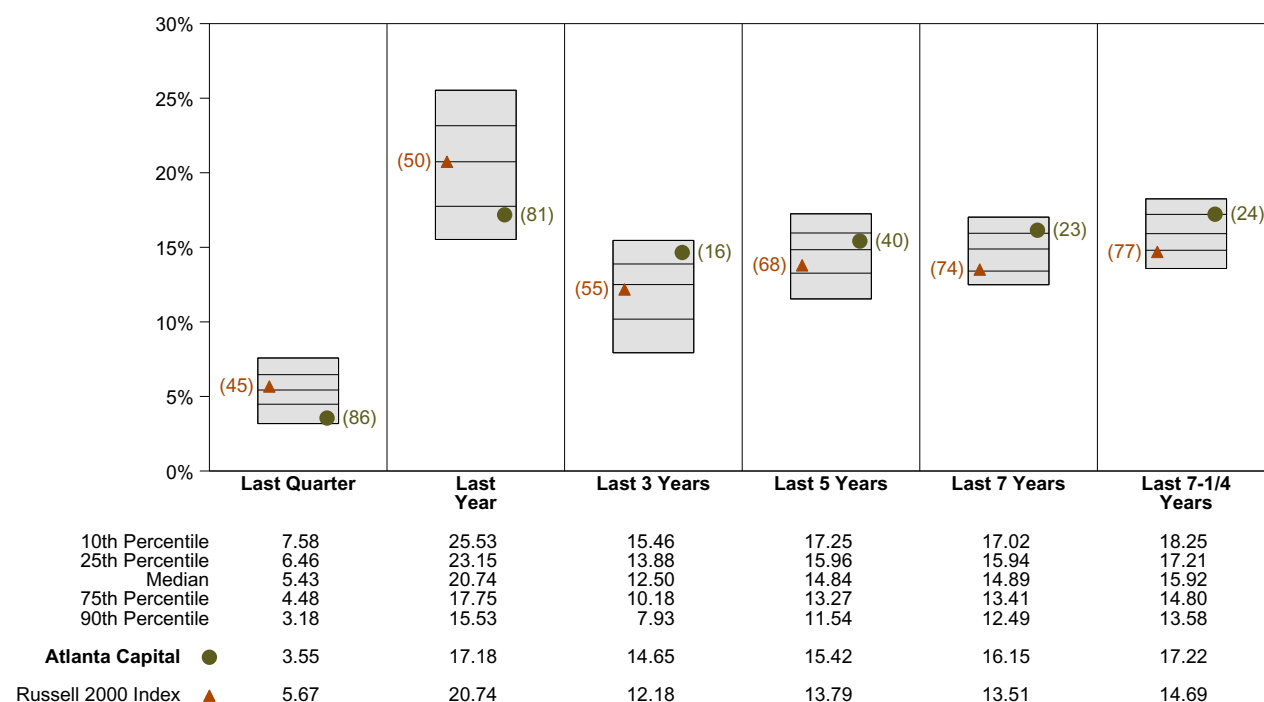
## Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a 3.55% return for the quarter placing it in the 86 percentile of the Callan Small Capitalization group for the quarter and in the 81 percentile for the last year.
- Atlanta Capital's portfolio underperformed the Russell 2000 Index by 2.12% for the quarter and underperformed the Russell 2000 Index for the year by 3.56%.

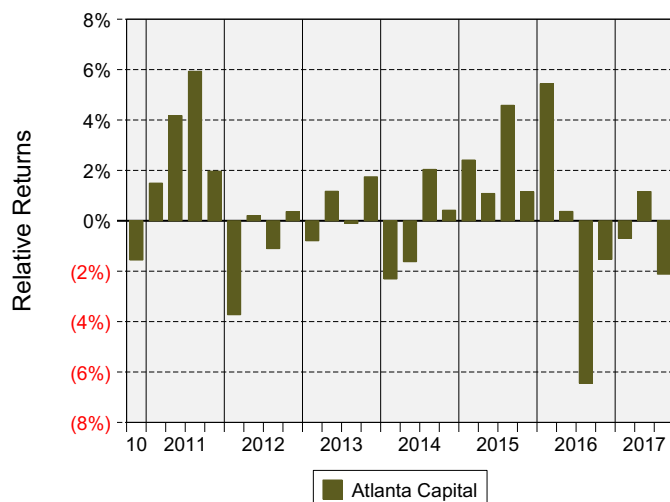
## Quarterly Asset Growth

Beginning Market Value	\$24,786,908
Net New Investment	\$0
Investment Gains/(Losses)	\$880,357
Ending Market Value	\$25,667,265

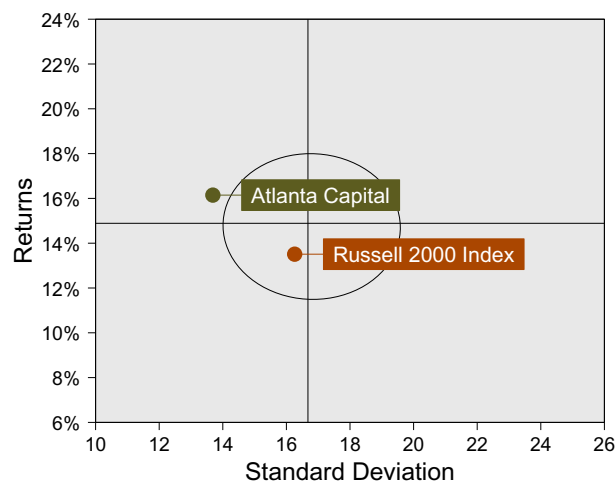
## Performance vs Callan Small Capitalization (Gross)



## Relative Return vs Russell 2000 Index



## Callan Small Capitalization (Gross) Annualized Seven Year Risk vs Return



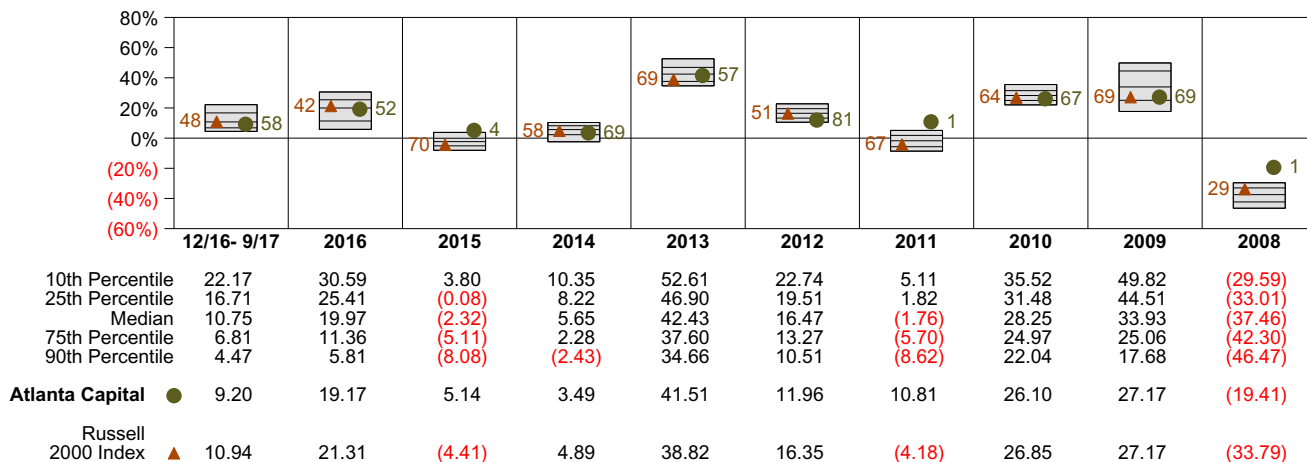


# Atlanta Capital Return Analysis Summary

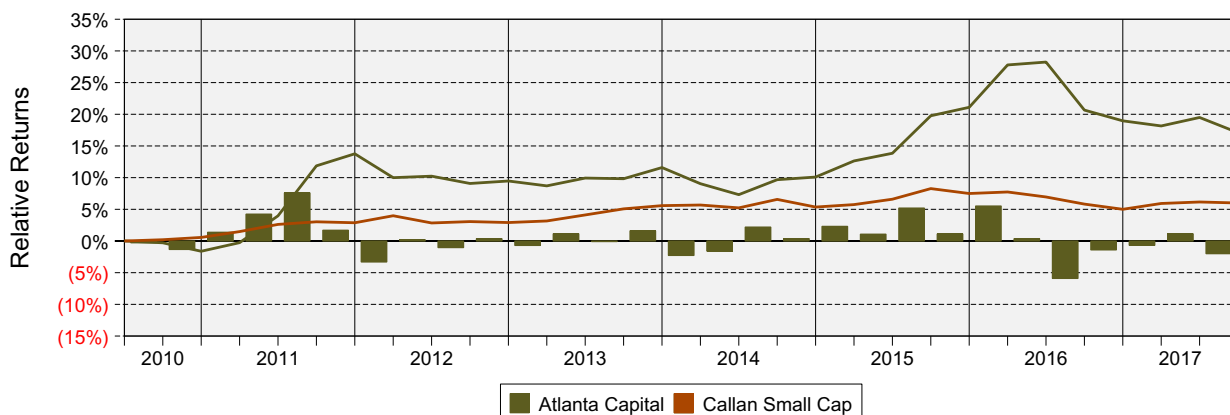
## Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

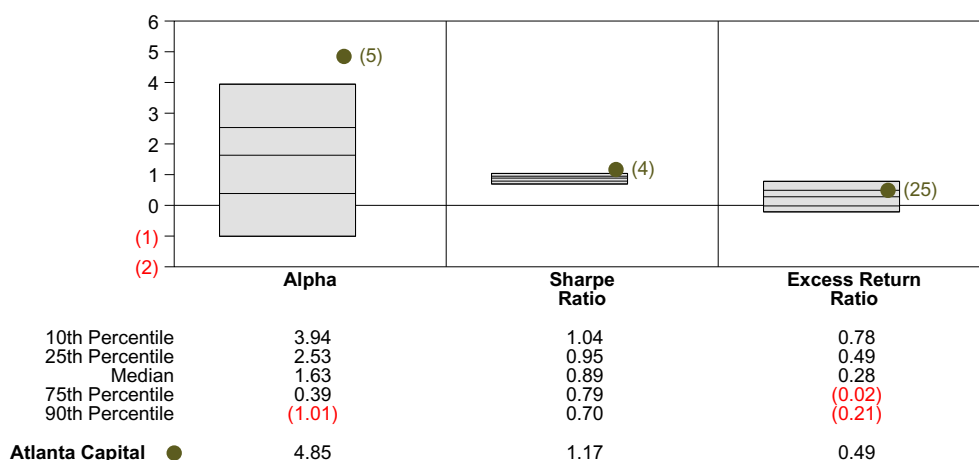
### Performance vs Callan Small Capitalization (Gross)



### Cumulative and Quarterly Relative Return vs Russell 2000 Index



### Risk Adjusted Return Measures vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Seven Years Ended September 30, 2017

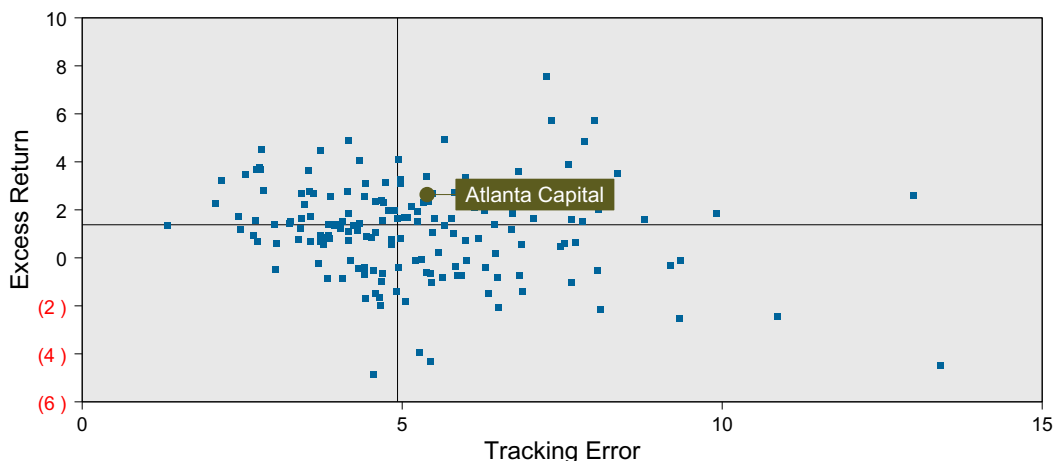


## Atlanta Capital Risk Analysis Summary

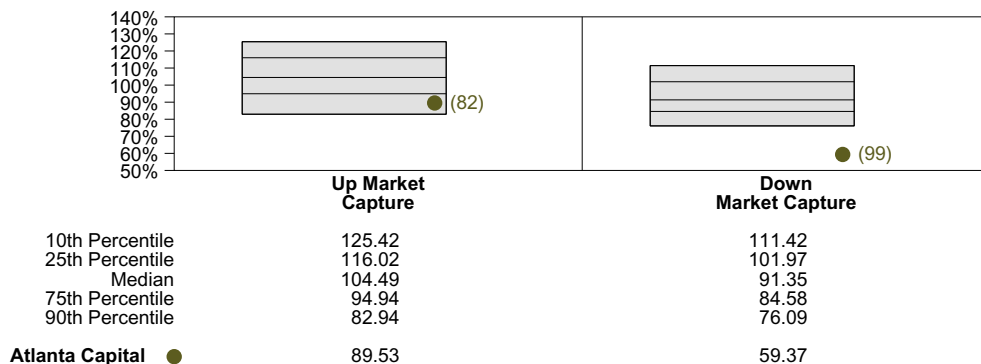
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

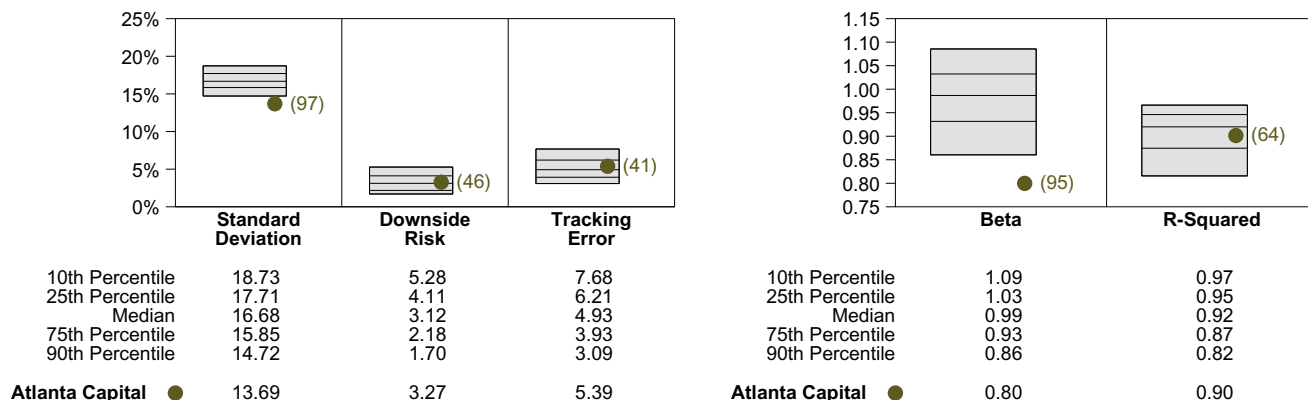
### Risk Analysis vs Callan Small Capitalization (Gross) Seven Years Ended September 30, 2017



### Market Capture vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Seven Years Ended September 30, 2017



### Risk Statistics Rankings vs Russell 2000 Index Rankings Against Callan Small Capitalization (Gross) Seven Years Ended September 30, 2017

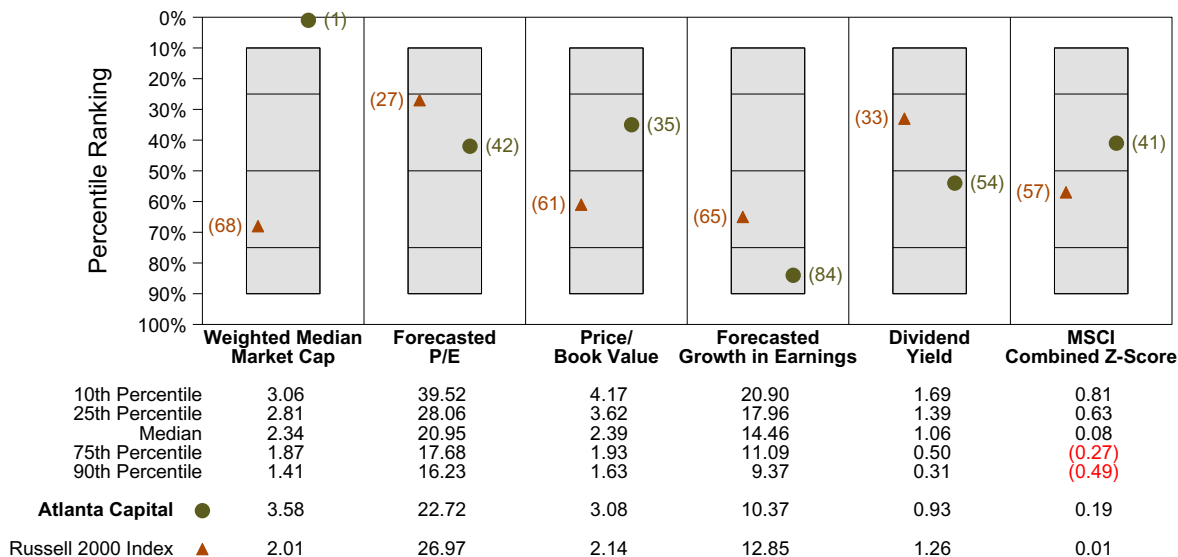


# Atlanta Capital Equity Characteristics Analysis Summary

## Portfolio Characteristics

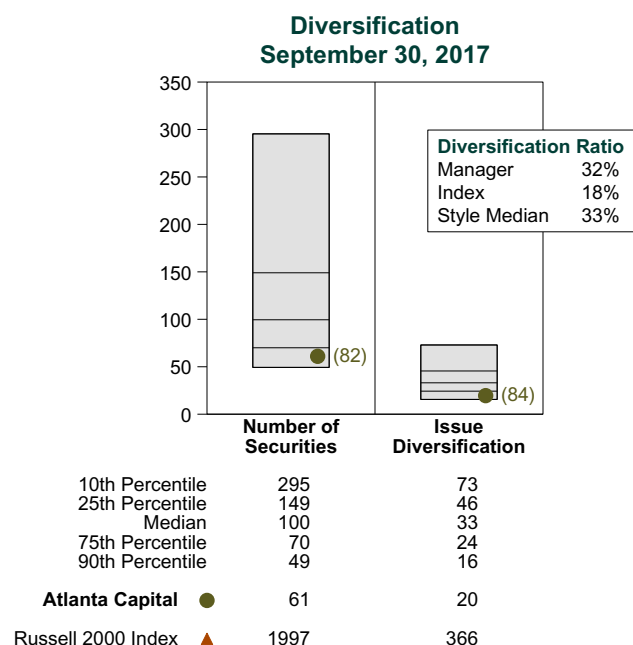
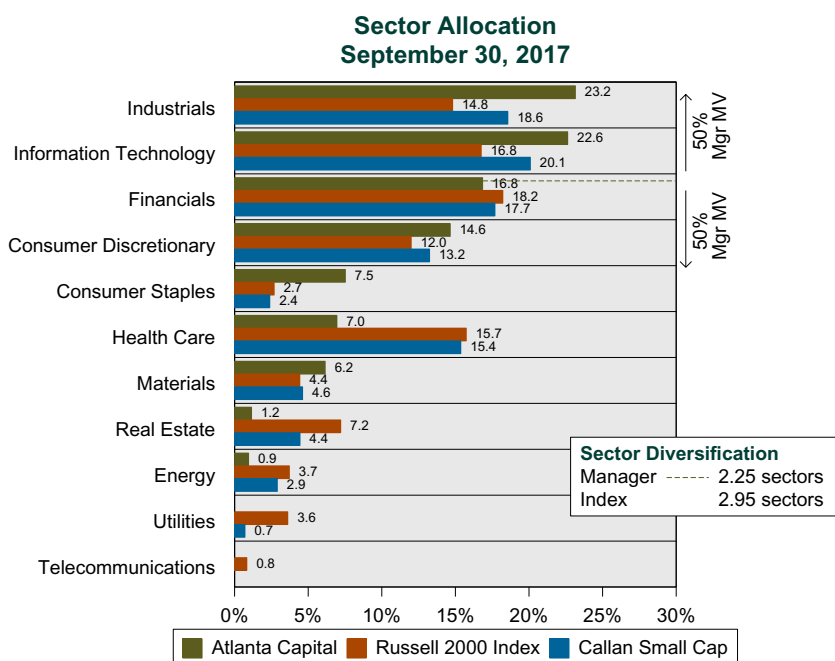
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

## Portfolio Characteristics Percentile Rankings Rankings Against Callan Small Capitalization as of September 30, 2017



## Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



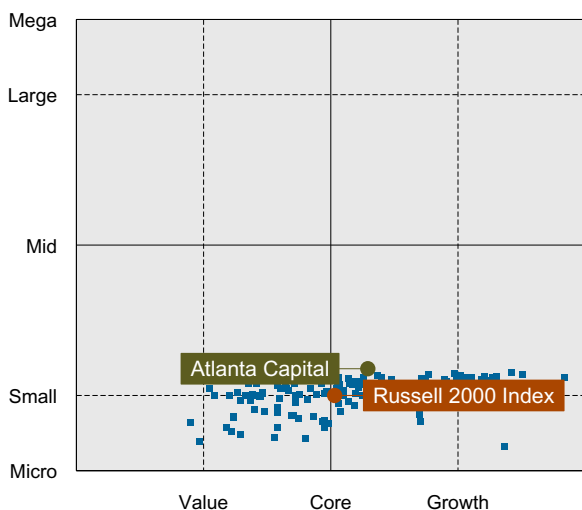
## Current Holdings Based Style Analysis

### Atlanta Capital

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

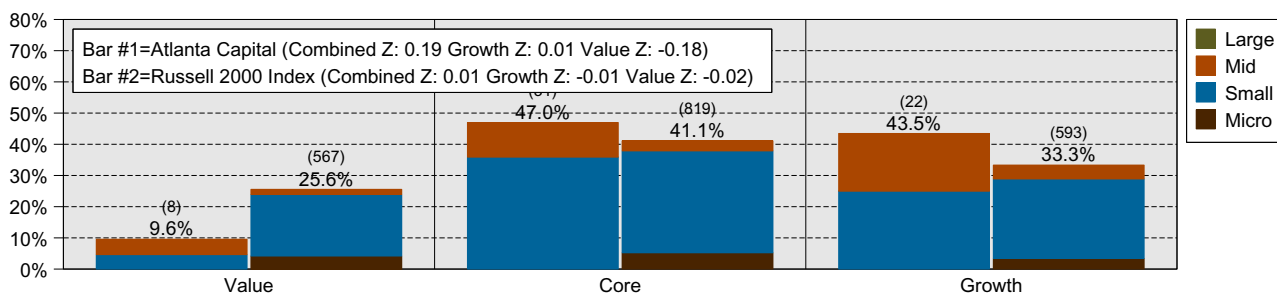
**Style Map vs Callan Small Cap Holdings as of September 30, 2017**



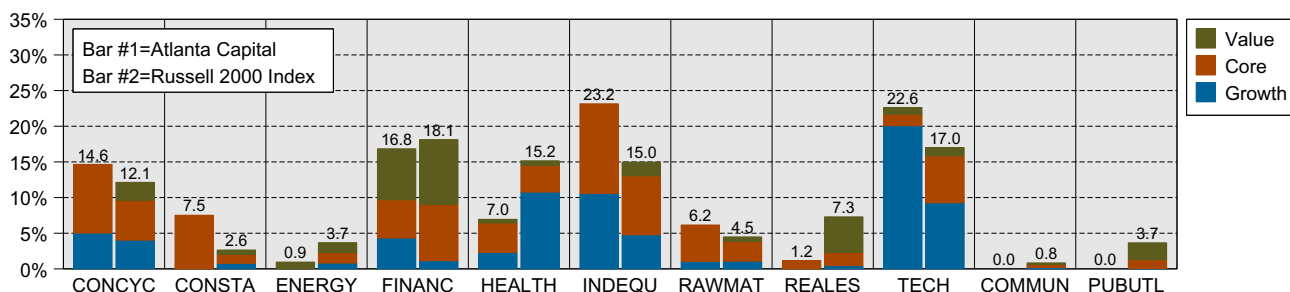
**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid	4.9% (3)	11.1% (5)	18.5% (9)	34.5% (17)
Small	4.6% (5)	35.9% (26)	25.0% (13)	65.5% (44)
Micro	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
<b>Total</b>	<b>9.6% (8)</b>	<b>47.0% (31)</b>	<b>43.5% (22)</b>	<b>100.0% (61)</b>

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



**Sector Weights Distribution Holdings as of September 30, 2017**



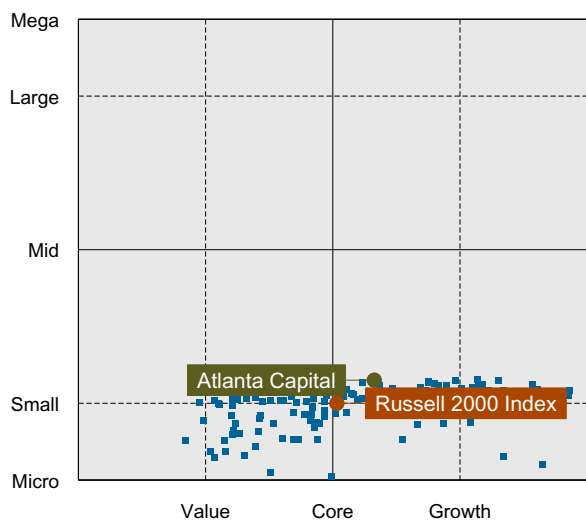
## Historical Holdings Based Style Analysis

### Atlanta Capital

#### For Five Years Ended September 30, 2017

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various market capitalization and style segments of the domestic equity market. The market is segmented quarterly by capitalization and style. The capitalization segments are dictated by capitalization decile breakpoints. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The next two style exposure charts illustrate the actual quarterly cap/style and style only segment exposures of the portfolio through history.

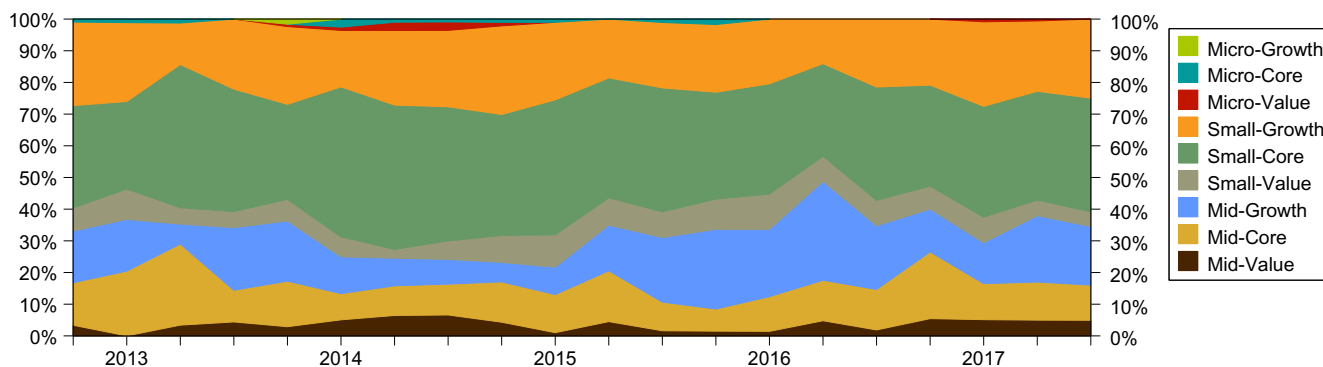
**Average Style Map vs Callan Small Cap Holdings for Five Years Ended September 30, 2017**



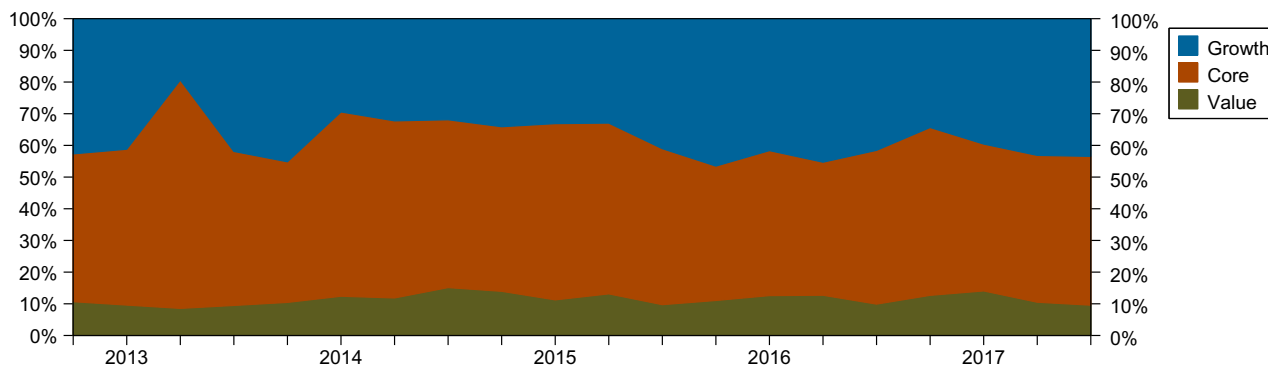
**Average Style Exposure Matrix Holdings for Five Years Ended September 30, 2017**

	Value	Core	Growth	Total
Mega	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Large	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Mid	3.7% (2)	13.0% (6)	15.9% (7)	32.6% (15)
Small	7.3% (5)	36.9% (25)	22.0% (13)	66.2% (43)
Micro	0.5% (0)	0.6% (1)	0.1% (0)	1.2% (1)
Total	11.5% (7)	50.5% (32)	38.0% (20)	100.0% (59)
	26.6% (572)	39.8% (810)	33.6% (579)	100.0% (1961)

**Atlanta Capital Historical Cap/Style Exposures**



**Atlanta Capital Historical Style Only Exposures**



# Atlanta Capital vs Russell 2000 Index

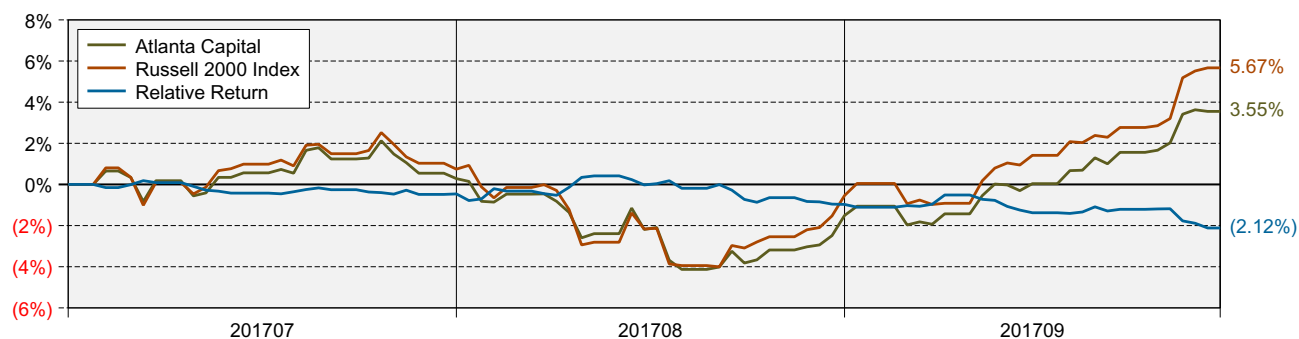
## Domestic Equity Daily Performance Attribution

### One Quarter Ended September 30, 2017

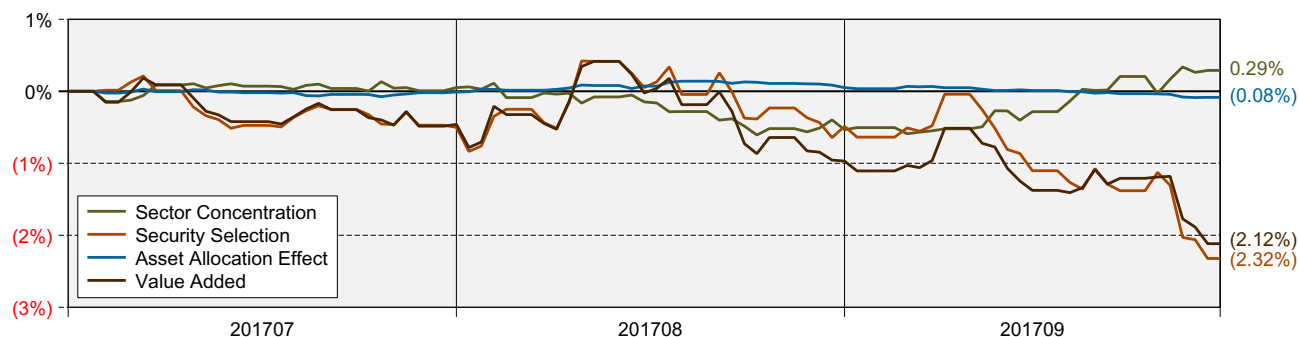
#### Return Sources and Timing

The charts below illustrate the timing and cumulative paths of the manager's performance, as well as attributing relative performance to three sources: Sector Concentration, Security Selection, and Asset Allocation. The first chart shows the cumulative absolute return paths for the manager and index. The second chart shows the cumulative relative return path of the manager and the attributed sources of that value-added. The bottom table breaks the annualized attribution factors down to the sector level for more insight into sources of return.

#### Cumulative Manager and Benchmark Returns



#### Cumulative Attribution Effects vs. Russell 2000 Index



#### Attribution Effects by Sector vs. Russell 2000 Index

##### One Quarter Ended September 30, 2017

Sector	Manager Eff Weight	Index Eff Weight	Manager Return	Index Return	Sector Concentration	Security Selection	Asset Allocation
Consumer Discretionary	14.57%	12.21%	0.03%	3.69%	(0.05)%	(0.56)%	-
Consumer Staples	7.59%	2.70%	4.16%	2.88%	(0.13)%	0.10%	-
Energy	0.98%	3.54%	(9.53)%	5.83%	(0.00)%	(0.17)%	-
Financials	16.33%	17.97%	6.11%	5.47%	0.00%	0.11%	-
Health Care	7.35%	15.26%	0.06%	7.89%	(0.15)%	(0.58)%	-
Industrials	24.78%	14.53%	9.19%	8.99%	0.35%	0.07%	-
Information Technology	21.77%	17.18%	1.17%	4.92%	(0.05)%	(0.84)%	-
Materials	5.41%	4.41%	0.13%	6.77%	0.01%	(0.37)%	-
Real Estate	1.23%	7.59%	(4.25)%	1.96%	0.24%	(0.08)%	-
Telecommunications	0.00%	0.84%	0.00%	1.27%	0.04%	0.00%	-
Utilities	0.00%	3.77%	0.00%	5.18%	0.02%	0.00%	-
Non Equity	3.27%	0.00%	-	-	-	-	(0.08)%
Total	-	-	3.55%	5.67%	0.29%	(2.32)%	(0.08)%

<b>Manager Return</b>	=	<b>Index Return</b>	+	<b>Sector Concentration</b>	+	<b>Security Selection</b>	+	<b>Asset Allocation</b>
3.55%		5.67%		0.29%		(2.32)%		(0.08)%

# Atlanta Capital vs Russell 2000 Index

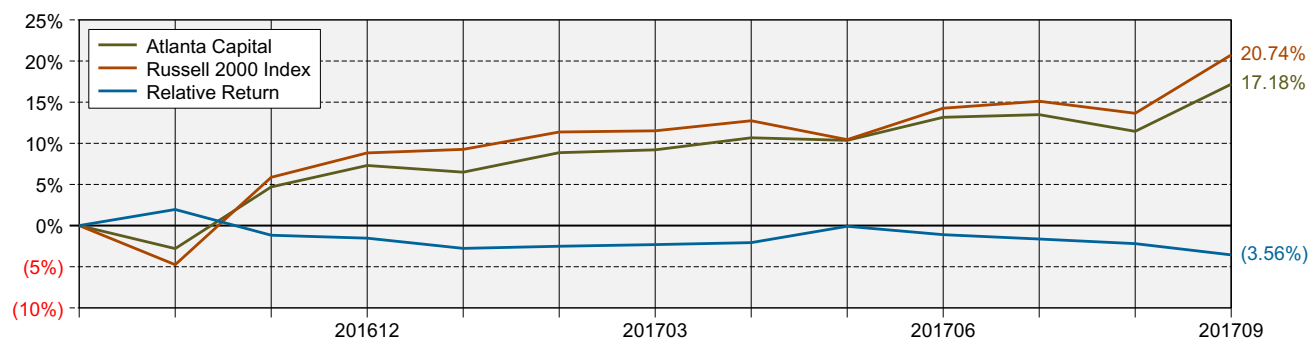
## Domestic Equity Daily Performance Attribution

### One Year Ended September 30, 2017

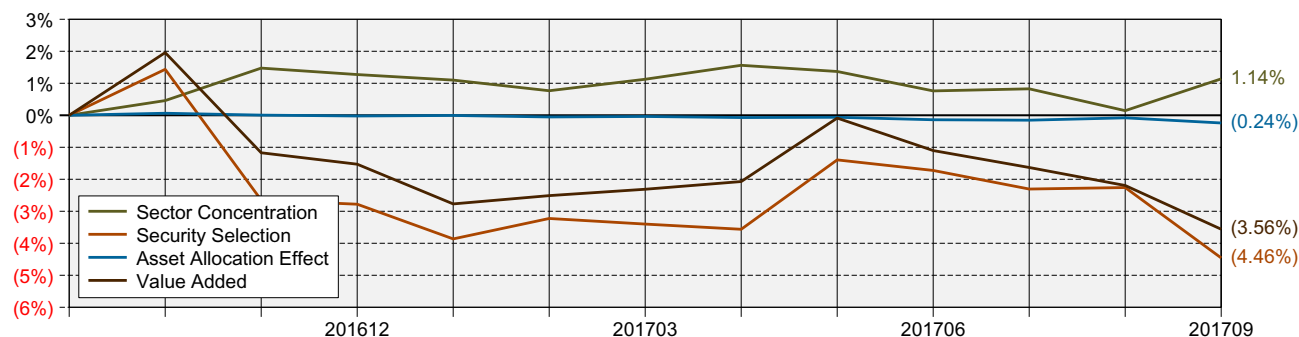
#### Return Sources and Timing

The charts below illustrate the timing and cumulative paths of the manager's performance, as well as attributing relative performance to three sources: Sector Concentration, Security Selection, and Asset Allocation. The first chart shows the cumulative absolute return paths for the manager and index. The second chart shows the cumulative relative return path of the manager and the attributed sources of that value-added. The bottom table breaks the annualized attribution factors down to the sector level for more insight into sources of return.

#### Cumulative Manager and Benchmark Returns



#### Cumulative Attribution Effects vs. Russell 2000 Index



#### Attribution Effects by Sector vs. Russell 2000 Index

##### One Year Ended September 30, 2017

Sector	Manager Eff Weight	Index Eff Weight	Manager Return	Index Return	Sector Concentration	Security Selection	Asset Allocation
Consumer Discretionary	15.55%	12.40%	4.77%	16.07%	(0.11)%	(1.87)%	-
Consumer Staples	7.76%	2.88%	5.97%	3.01%	(0.89)%	0.23%	-
Energy	1.22%	3.43%	(20.79)%	(10.00)%	0.64%	(0.17)%	-
Financials	16.46%	18.77%	19.47%	29.05%	(0.04)%	(1.57)%	-
Health Care	8.07%	13.53%	30.38%	24.41%	(0.09)%	0.52%	-
Industrials	25.06%	14.44%	32.87%	27.17%	0.75%	1.22%	-
Information Technology	19.69%	17.42%	9.95%	21.75%	0.01%	(2.31)%	-
Materials	5.08%	4.79%	12.37%	25.20%	0.03%	(0.66)%	-
Real Estate	1.11%	7.85%	24.51%	9.81%	0.77%	0.16%	-
Telecommunications	0.00%	0.77%	0.00%	20.01%	0.01%	0.00%	-
Utilities	0.00%	3.74%	0.00%	19.36%	0.06%	0.00%	-
Non Equity	2.44%	0.00%	-	-	-	-	(0.24)%
Total	-	-	17.18%	20.74%	1.14%	(4.46)%	(0.24)%

<b>Manager Return</b>	=	<b>Index Return</b>	+	<b>Sector Concentration</b>	+	<b>Security Selection</b>	+	<b>Asset Allocation</b>
17.18%		20.74%		1.14%		(4.46)%		(0.24)%

# Atlanta Capital vs Russell 2000 Index Domestic Equity Top 10 Contribution Holdings One Quarter Ended September 30, 2017

## Manager Holdings with Largest (+ or -) Contribution to Performance

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Manager Perf	Contrib Excess Return
Exponent Inc	Industrials	2.57%	92	0.08%	27.16%	27.16%	0.64%	0.46%
Manhattan Associates	Information Technology	3.59%	92	-	(13.76)%	-	(0.50)%	(0.72)%
Heico Corp New Cl A	Industrials	2.15%	92	-	22.69%	-	0.43%	0.33%
Monro Inc	Consumer Discretionary	1.09%	92	0.07%	34.78%	34.78%	0.35%	0.26%
Moog Inc Cl A	Industrials	1.85%	92	0.12%	16.33%	16.33%	0.29%	0.17%
Landstar System	Industrials	1.75%	92	-	16.55%	-	0.28%	0.17%
Dorman Products Inc	Consumer Discretionary	1.91%	92	0.11%	(13.47)%	(13.47)%	(0.28)%	(0.35)%
Inter Parfums Inc	Consumer Staples	2.17%	92	0.03%	13.01%	13.01%	0.27%	0.14%
Morningstar Inc	Financials	2.80%	92	-	8.81%	-	0.24%	0.07%
Knight-Swift Transportation Holding	Industrials	1.97%	92	0.10%	12.40%	50.89%	0.22%	0.11%

## Index Holdings with Largest (+ or -) Contribution to Performance

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Index Perf	Contrib Excess Return
Kite Pharma Inc	Health Care	-	-	0.33%	-	73.44%	0.19%	(0.16)%
Mks Instrument Inc	Information Technology	-	-	0.22%	-	40.65%	0.08%	(0.06)%
Bluebird Bio Inc	Health Care	-	-	0.25%	-	30.75%	0.07%	(0.06)%
Knight-Swift Transportation Holding	Industrials	1.97%	92	0.10%	12.40%	50.89%	0.07%	0.11%
Fibrogen Inc	Health Care	-	-	0.12%	-	66.56%	0.07%	(0.06)%
Exact Sciences Corp	Health Care	-	-	0.22%	-	33.22%	0.07%	(0.05)%
Nuvasive Inc	Health Care	-	-	0.18%	-	(27.90)%	(0.06)%	0.07%
Scientific Games Corp Cl A	Consumer Discretionary	-	-	0.09%	-	75.67%	0.05%	(0.05)%
Yelp Inc Cl A	Information Technology	-	-	0.14%	-	44.24%	0.05%	(0.04)%
Entegris Inc	Information Technology	-	-	0.18%	-	31.44%	0.05%	(0.04)%

## Positions with Largest Positive Contribution to Excess Return

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Manager Perf	Contrib Excess Return
Exponent Inc	Industrials	2.57%	92	0.08%	27.16%	27.16%	0.64%	0.46%
Heico Corp New Cl A	Industrials	2.15%	92	-	22.69%	-	0.43%	0.33%
Monro Inc	Consumer Discretionary	1.09%	92	0.07%	34.78%	34.78%	0.35%	0.26%
Landstar System	Industrials	1.75%	92	-	16.55%	-	0.28%	0.17%
Moog Inc Cl A	Industrials	1.85%	92	0.12%	16.33%	16.33%	0.29%	0.17%
Inter Parfums Inc	Consumer Staples	2.17%	92	0.03%	13.01%	13.01%	0.27%	0.14%
Knight-Swift Transportation Holding	Industrials	1.97%	92	0.10%	12.40%	50.89%	0.22%	0.11%
Graco Inc	Industrials	1.44%	92	-	13.15%	-	0.17%	0.10%
Bright Horizons Fam Sol In D	Consumer Discretionary	1.35%	92	-	11.66%	-	0.16%	0.08%
Morningstar Inc	Financials	2.80%	92	-	8.81%	-	0.24%	0.07%

## Positions with Largest Negative Contribution to Excess Return

Issue	Sector	Manager Eff Wt	Days Held	Index Eff Wt	Manager Return	Index Return	Contrib Manager Perf	Contrib Excess Return
Manhattan Associates	Information Technology	3.59%	92	-	(13.76)%	-	(0.50)%	(0.72)%
Dorman Products Inc	Consumer Discretionary	1.91%	92	0.11%	(13.47)%	(13.47)%	(0.28)%	(0.35)%
Pool Corporation	Consumer Discretionary	1.79%	92	-	(7.68)%	-	(0.15)%	(0.24)%
Huron Consulting Group Inc	Industrials	0.82%	92	0.04%	(20.60)%	(20.60)%	(0.20)%	(0.23)%
Integra Lifesciences Hldgs C	Health Care	1.75%	92	0.17%	(7.39)%	(7.39)%	(0.14)%	(0.21)%
Aptargroup Inc	Materials	3.04%	92	-	(0.28)%	-	(0.01)%	(0.19)%
Kite Pharma Inc	Health Care	-	-	0.33%	-	73.44%	-	(0.16)%
Choice Hotels Intl Inc	Consumer Discretionary	2.74%	92	-	(0.21)%	-	(0.00)%	(0.16)%
Sally Beauty Hldgs Inc	Consumer Discretionary	1.74%	92	-	(3.31)%	-	(0.06)%	(0.15)%
Kirby Corp	Industrials	2.10%	92	-	(1.35)%	-	(0.03)%	(0.15)%





## International Equity Period Ended September 30, 2017

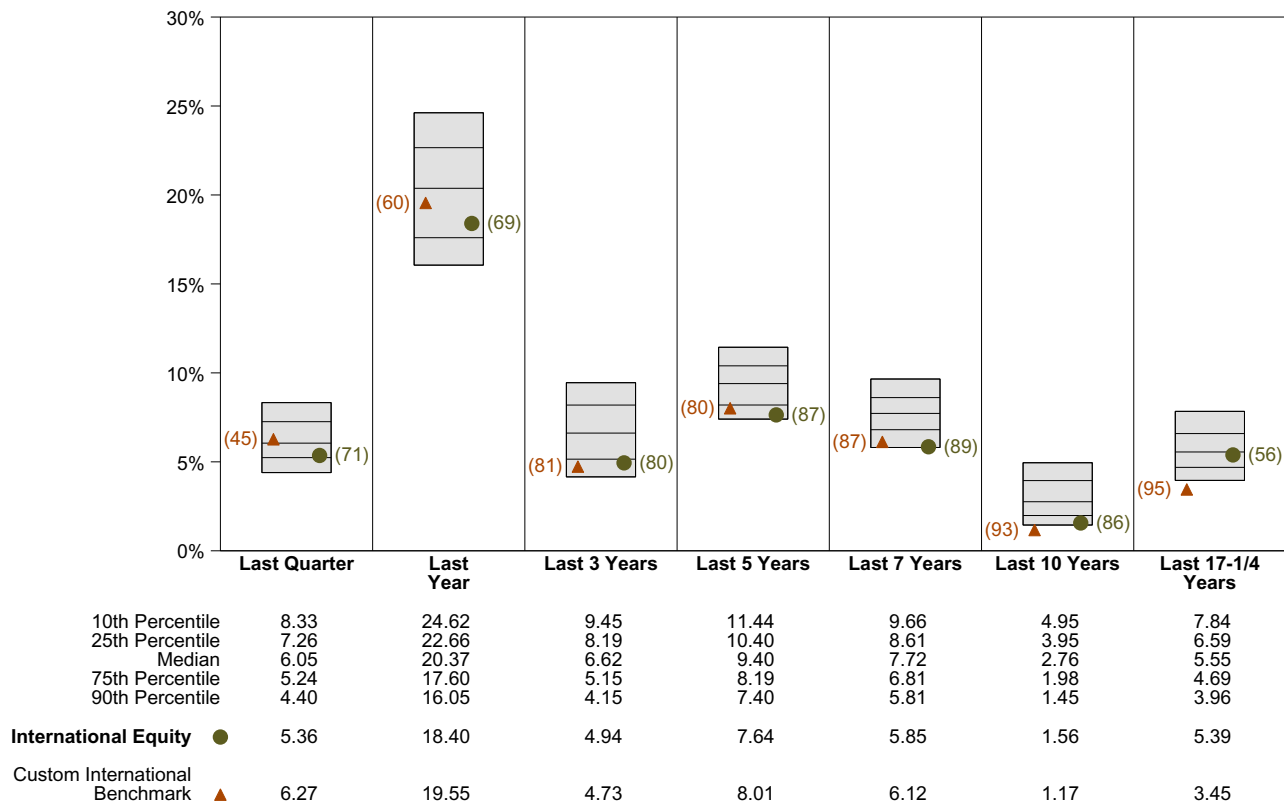
### Investment Philosophy

\*\*\* Custom International Benchmark = MSCI EAFE until 6/30/2013, MSCI ACWI ex US until 7/31/2016, and MSCI ACWI ex US IMI thereafter.

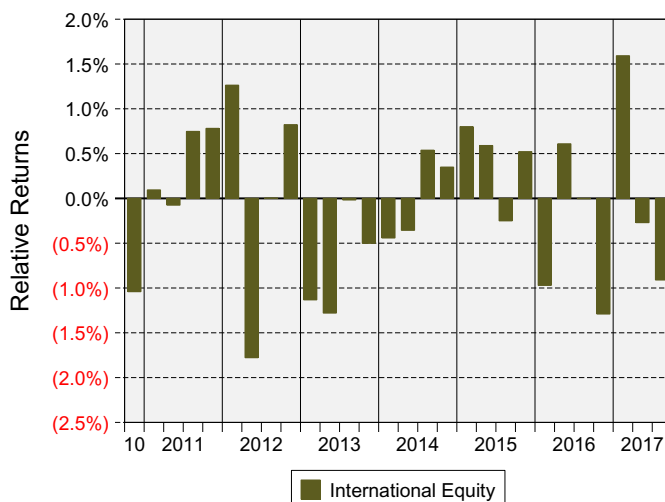
### Quarterly Summary and Highlights

- International Equity's portfolio posted a 5.36% return for the quarter placing it in the 71 percentile of the Callan Non-US Equity group for the quarter and in the 69 percentile for the last year.
- International Equity's portfolio underperformed the Custom International Benchmark by 0.91% for the quarter and underperformed the Custom International Benchmark for the year by 1.16%.

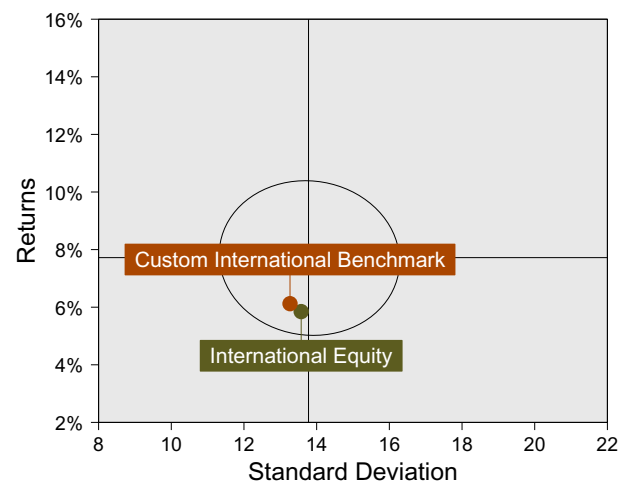
### Performance vs Callan Non-US Equity (Gross)



### Relative Returns vs Custom International Benchmark



### Callan Non-US Equity (Gross) Annualized Seven Year Risk vs Return

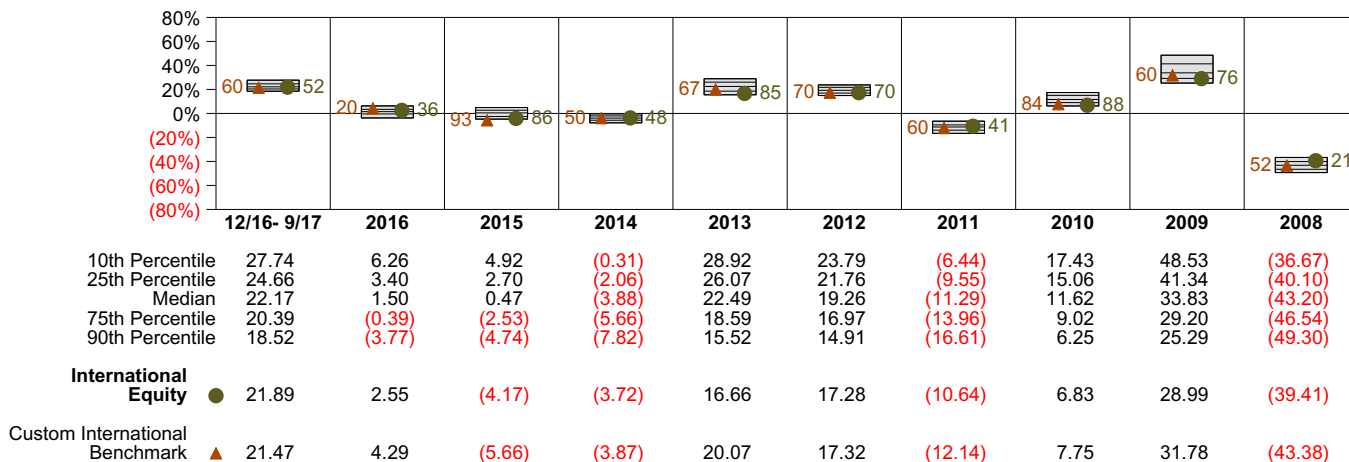


## International Equity Return Analysis Summary

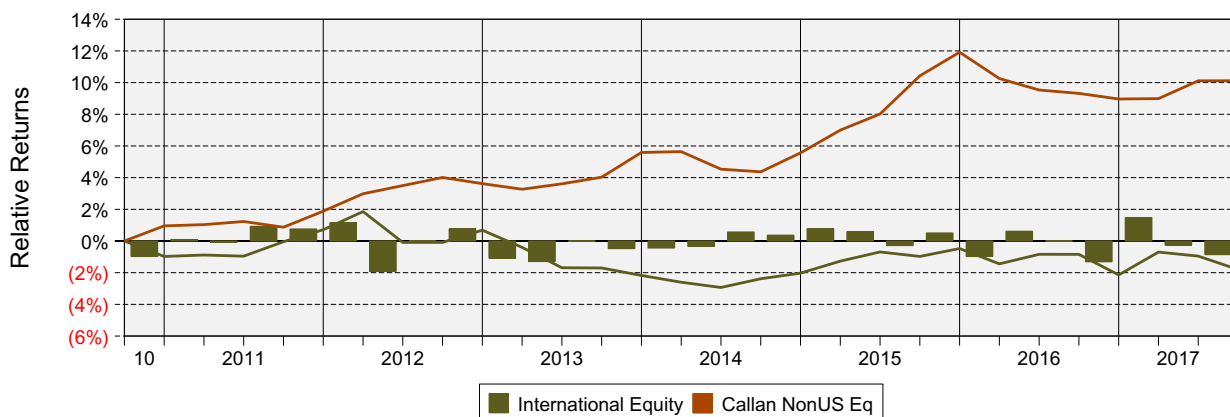
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

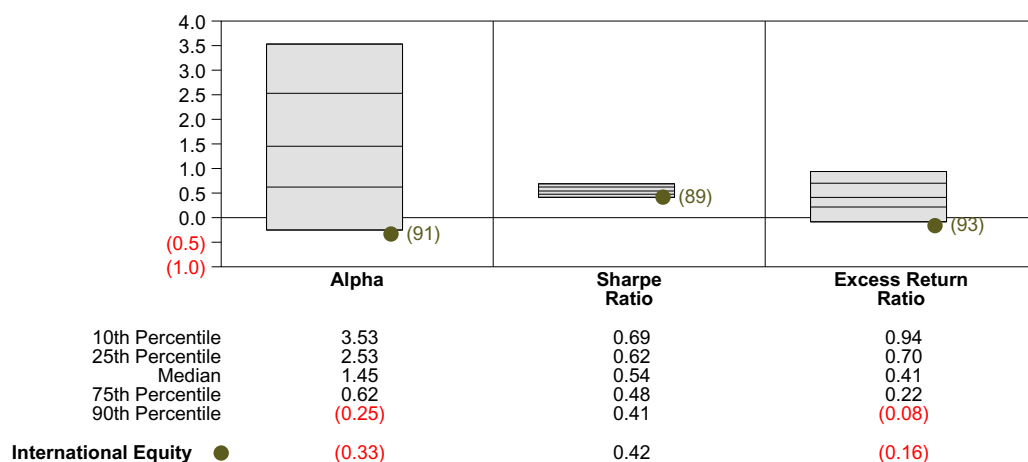
### Performance vs Callan Non-US Equity (Gross)



### Cumulative and Quarterly Relative Return vs Custom International Benchmark



### Risk Adjusted Return Measures vs Custom International Benchmark Rankings Against Callan Non-US Equity (Gross) Seven Years Ended September 30, 2017



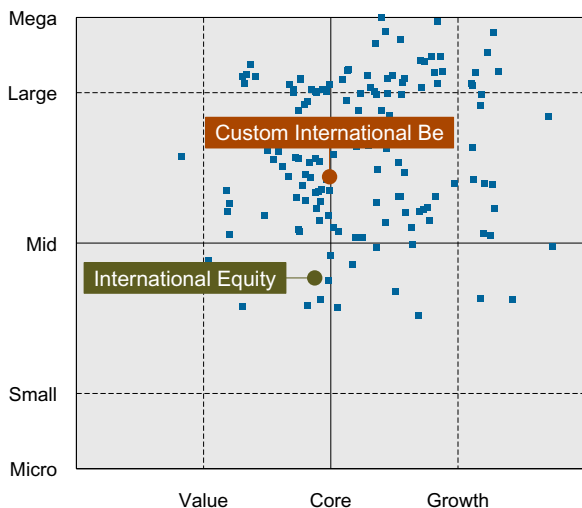
## Current Holdings Based Style Analysis

### International Equity

### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

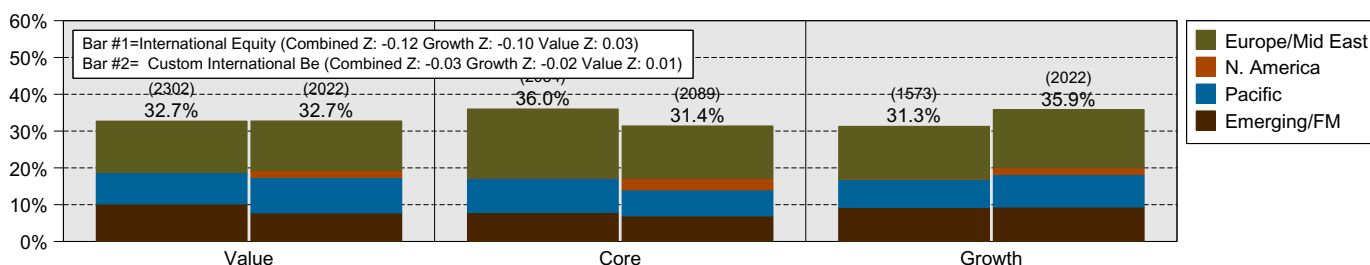
**Style Map vs Callan NonUS Eq Holdings as of September 30, 2017**



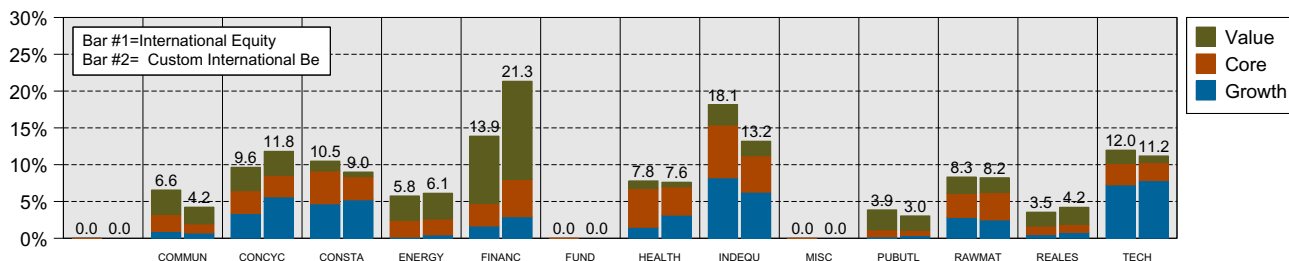
**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Europe/ Mid East	14.0% (258) 13.4% (432)	18.6% (271) 14.3% (521)	14.3% (292) 15.8% (529)	46.9% (821) 43.5% (1482)
N. America	0.0% (3) 1.9% (96)	0.2% (14) 3.1% (114)	0.0% (1) 1.9% (102)	0.2% (18) 6.9% (312)
Pacific	8.5% (326) 9.7% (577)	9.3% (300) 7.1% (568)	7.7% (272) 8.8% (540)	25.6% (898) 25.5% (1685)
Emerging/ FM	10.2% (1715) 7.8% (917)	7.9% (1469) 7.0% (886)	9.2% (1008) 9.4% (851)	27.4% (4192) 24.1% (2654)
<b>Total</b>	<b>32.7% (2302)</b> <b>32.7% (2022)</b>	<b>36.0% (2054)</b> <b>31.4% (2089)</b>	<b>31.3% (1573)</b> <b>35.9% (2022)</b>	<b>100.0% (5929)</b> <b>100.0% (6133)</b>

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



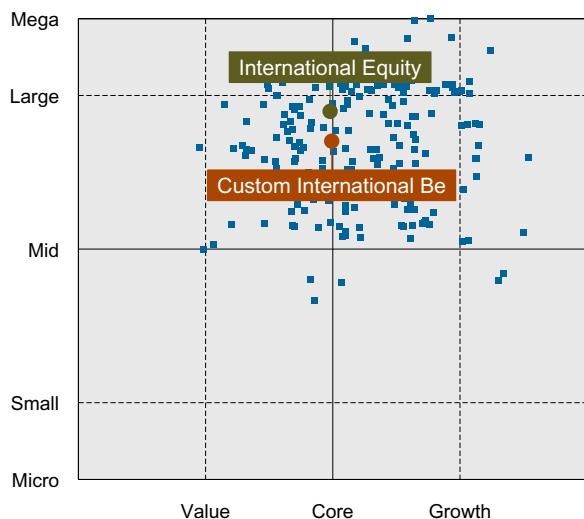
**Sector Weights Distribution Holdings as of September 30, 2017**



## Historical Holdings Based Style Analysis International Equity For Five Years Ended September 30, 2017

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

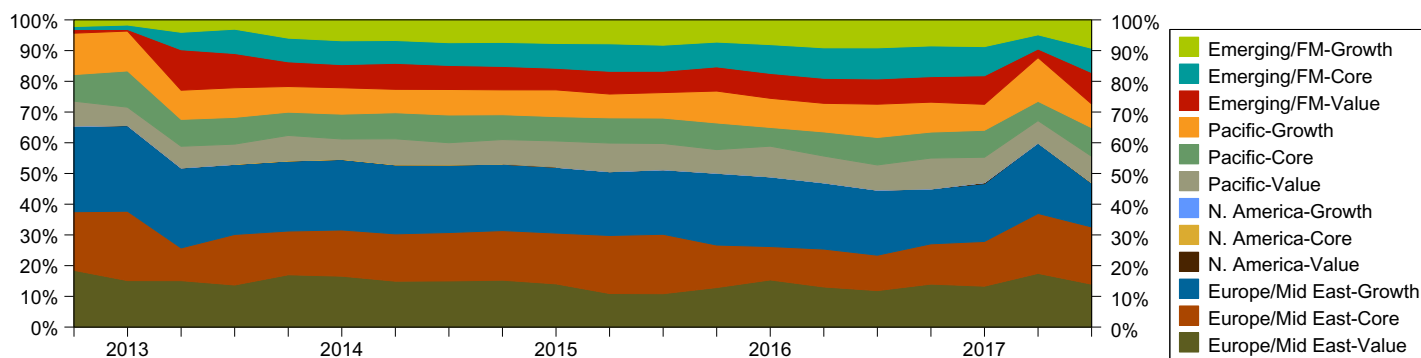
**Average Style Map vs Callan NonUS Eq Holdings for Five Years Ended September 30, 2017**



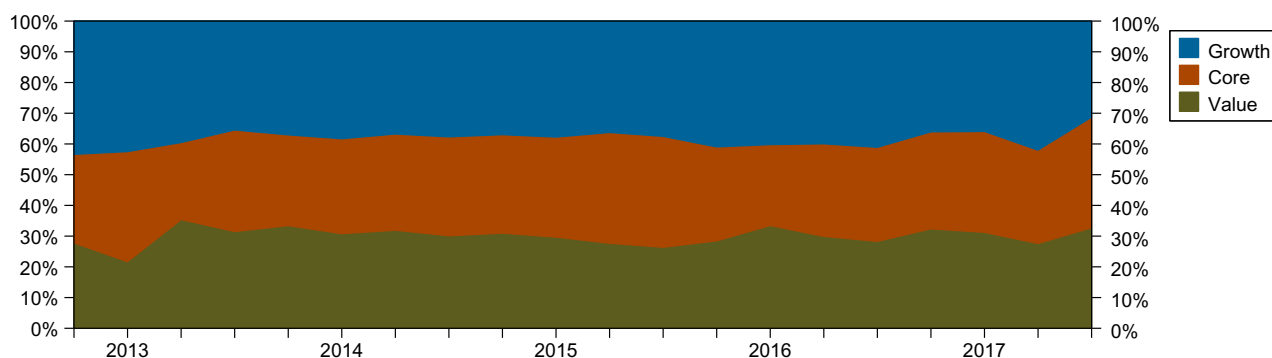
**Average Style Exposure Matrix Holdings for Five Years Ended September 30, 2017**

	Value	Core	Growth	Total
Europe/ Mid East	14.5% (152) 14.5% (200)	15.7% (166) 14.2% (224)	22.1% (220) 19.5% (276)	52.3% (538) 48.2% (700)
N. America	0.0% (1) 1.9% (43)	0.0% (3) 2.5% (50)	0.0% (1) 1.7% (43)	0.1% (5) 6.1% (136)
Pacific	8.1% (179) 8.2% (242)	8.4% (202) 9.3% (262)	9.6% (198) 9.2% (265)	26.0% (579) 26.8% (769)
Emerging/ FM	7.5% (1204) 6.1% (396)	7.5% (1243) 6.1% (370)	6.7% (716) 6.7% (389)	21.6% (3163) 18.9% (1155)
<b>Total</b>	<b>30.1% (1536) 30.7% (881)</b>	<b>31.6% (1614) 32.1% (906)</b>	<b>38.3% (1135) 37.2% (973)</b>	<b>100.0% (4285) 100.0% (2760)</b>

**International Equity Historical Region/Style Exposures**



**International Equity Historical Style Only Exposures**



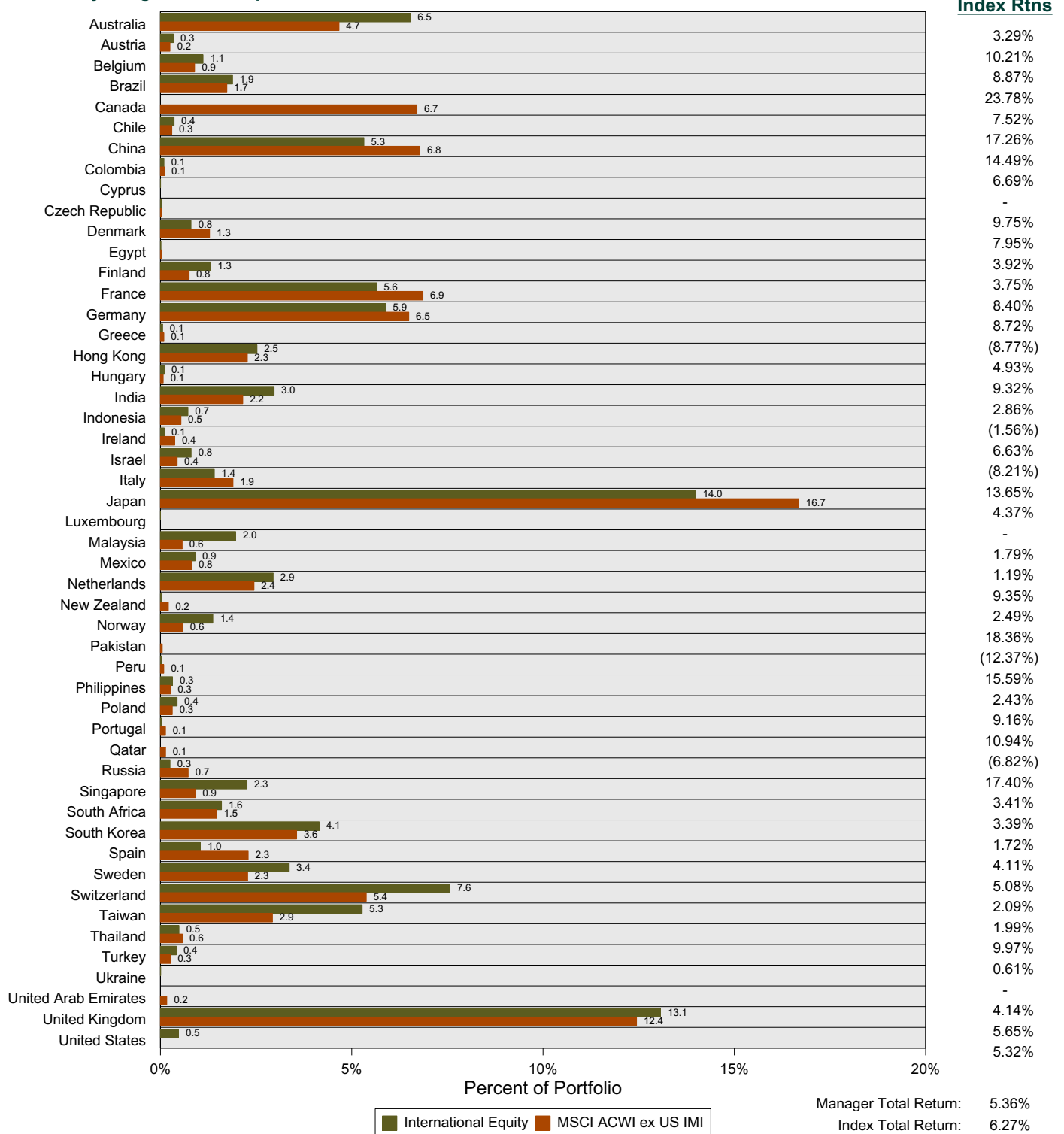
## Country Allocation

### International Equity VS MSCI ACWI ex US IMI Index (USD Net Div)

#### Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2017. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

#### Country Weights as of September 30, 2017



## SSgA EAFE Period Ended September 30, 2017

### Investment Philosophy

SSGA's objective is to provide the most cost-effective implementation of passive investing with stringent risk control and tracking requirements through a replication method. Returns prior to 6/30/2012 are linked to a composite history.

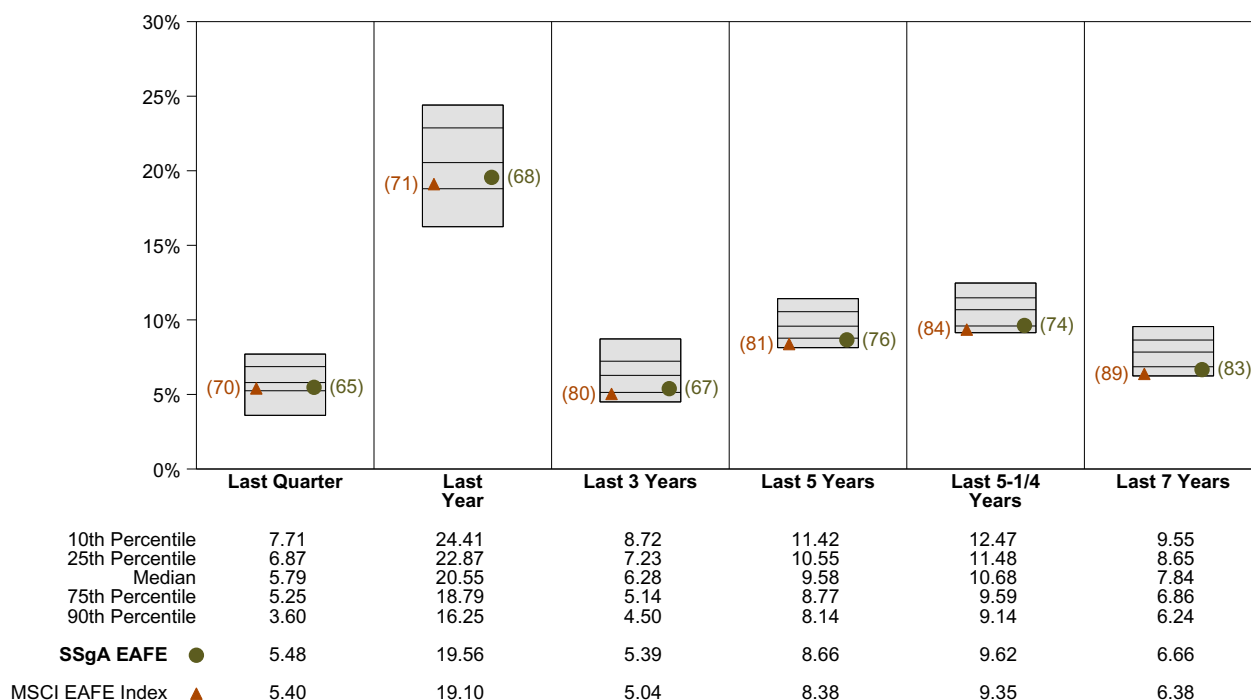
### Quarterly Summary and Highlights

- SSgA EAFE's portfolio posted a 5.48% return for the quarter placing it in the 65 percentile of the Callan Non-US Developed Core Equity group for the quarter and in the 68 percentile for the last year.
- SSgA EAFE's portfolio outperformed the MSCI EAFE Index by 0.07% for the quarter and outperformed the MSCI EAFE Index for the year by 0.45%.

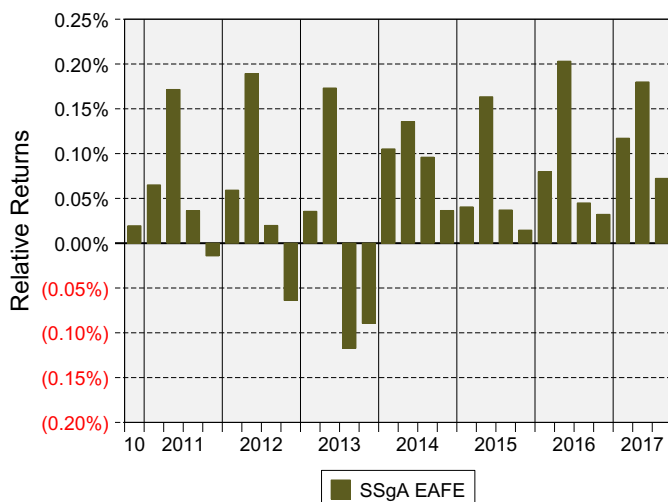
### Quarterly Asset Growth

Beginning Market Value	\$10,483,335
Net New Investment	\$0
Investment Gains/(Losses)	\$574,164
Ending Market Value	\$11,057,499

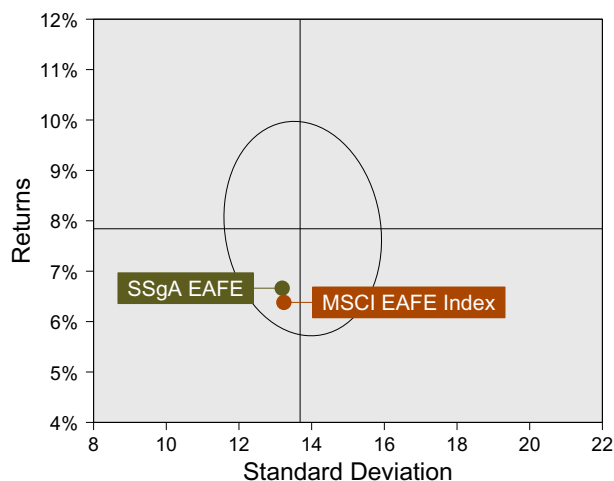
### Performance vs Callan Non-US Developed Core Equity (Gross)



### Relative Return vs MSCI EAFE Index



### Callan Non-US Developed Core Equity (Gross) Annualized Seven Year Risk vs Return

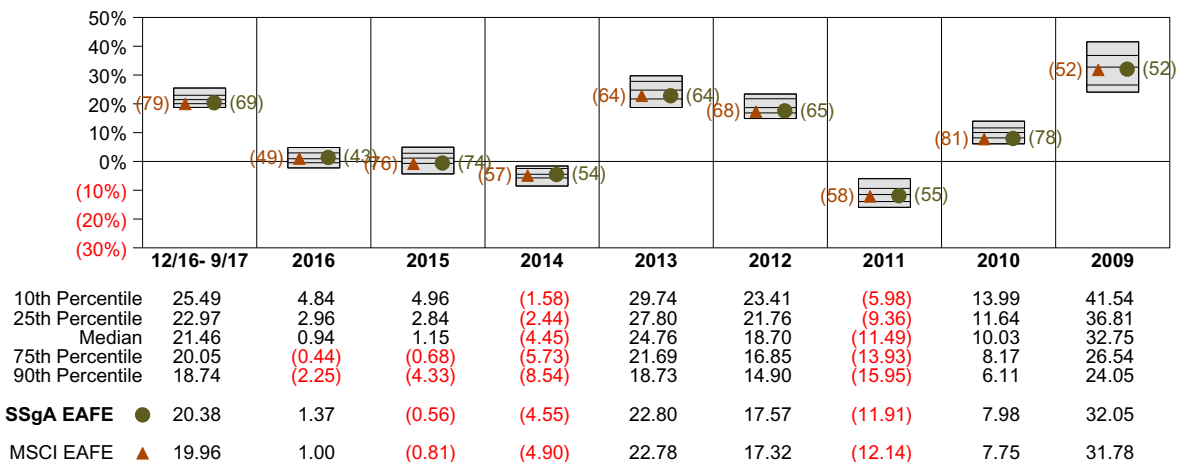


## SSgA EAFE Return Analysis Summary

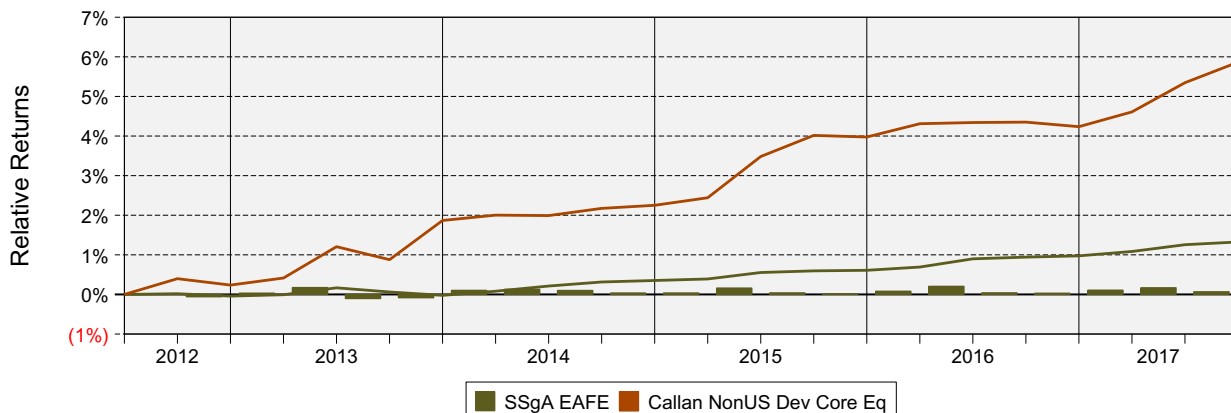
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

### Performance vs Callan Non-US Developed Core Equity (Gross)

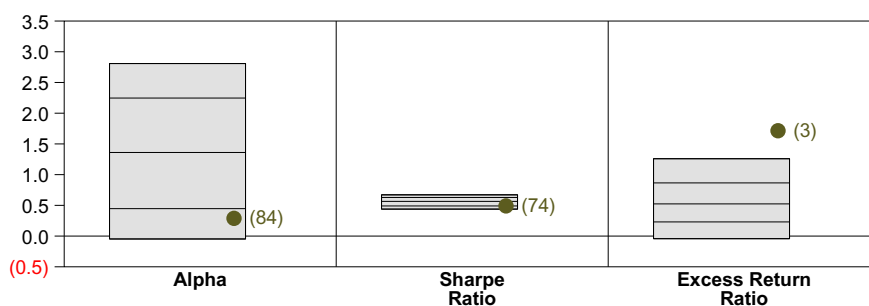


### Cumulative and Quarterly Relative Return vs MSCI EAFE



### Risk Adjusted Return Measures vs MSCI EAFE

#### Rankings Against Callan Non-US Developed Core Equity (Gross) Seven Years Ended September 30, 2017



10th Percentile	2.81	0.67	1.26
25th Percentile	2.25	0.63	0.87
Median	1.36	0.56	0.52
75th Percentile	0.45	0.49	0.23
90th Percentile	(0.05)	0.44	(0.04)
<b>SSgA EAFE</b>	0.29	0.49	1.71

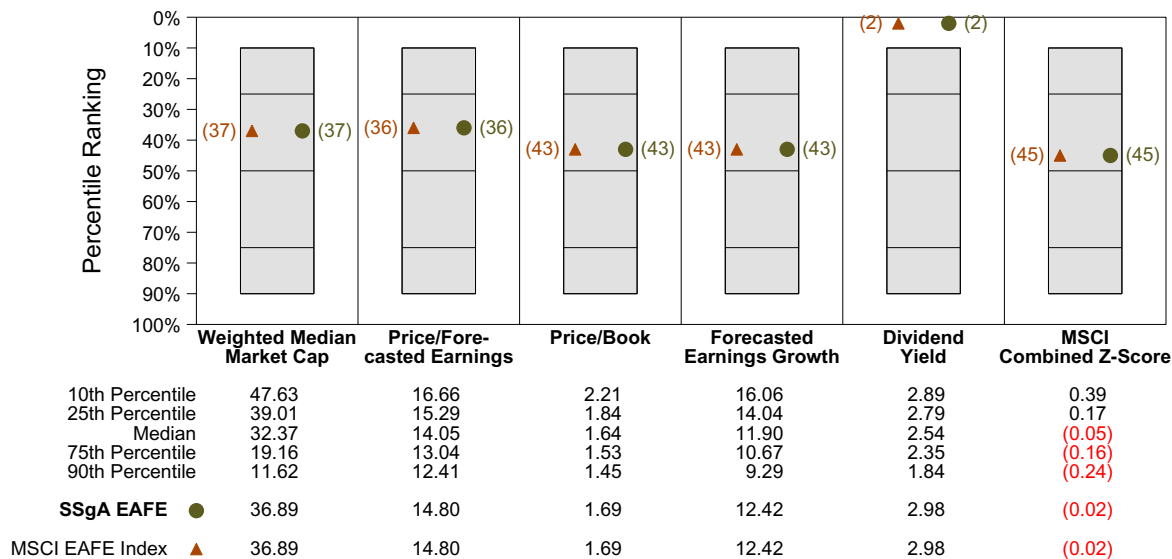


## SSgA EAFE Equity Characteristics Analysis Summary

### Portfolio Characteristics

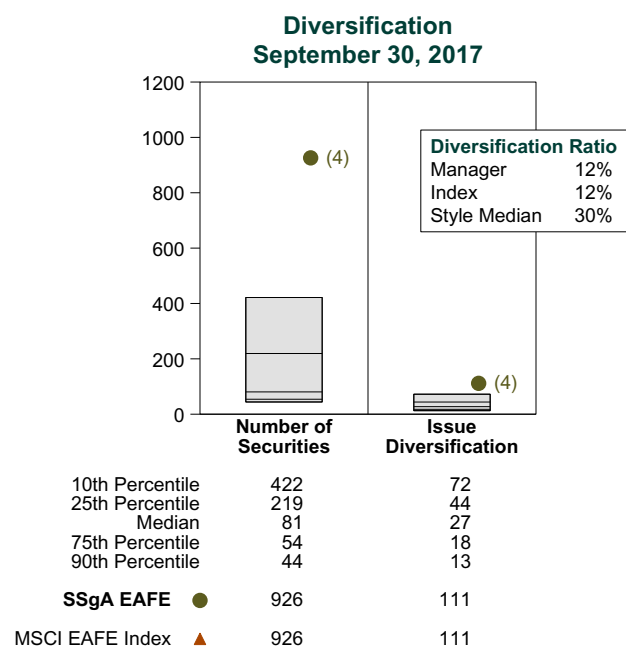
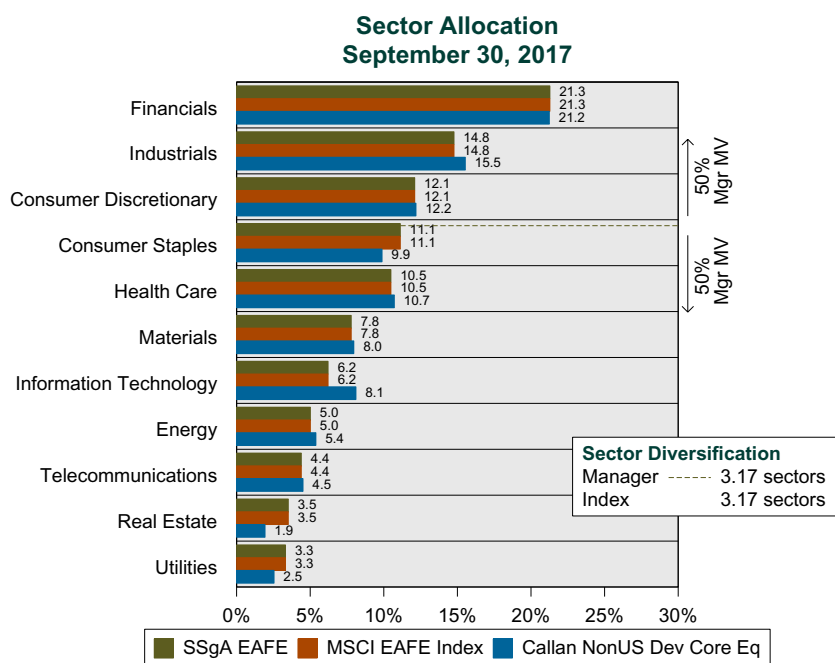
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Developed Core Equity as of September 30, 2017



### Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



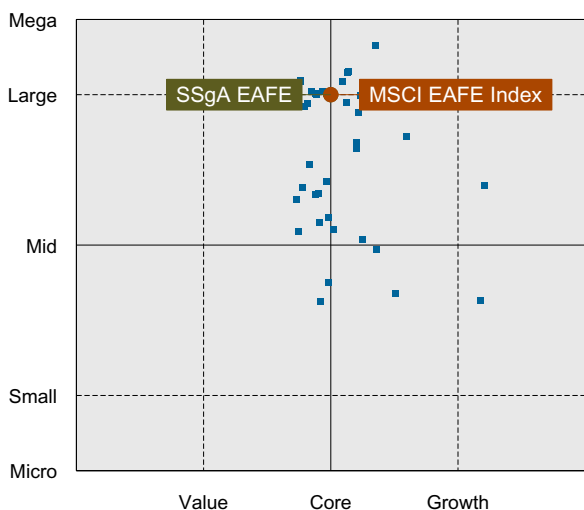
## Current Holdings Based Style Analysis

### SSgA EAFE

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

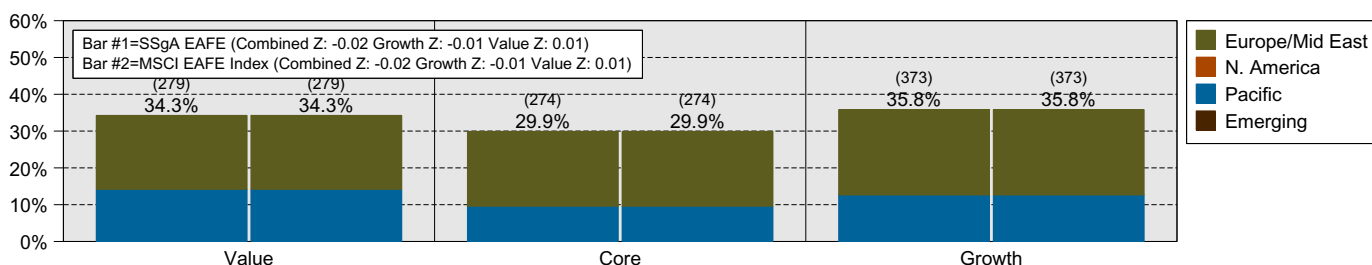
**Style Map vs Callan NonUS Dev Core Eq Holdings as of September 30, 2017**



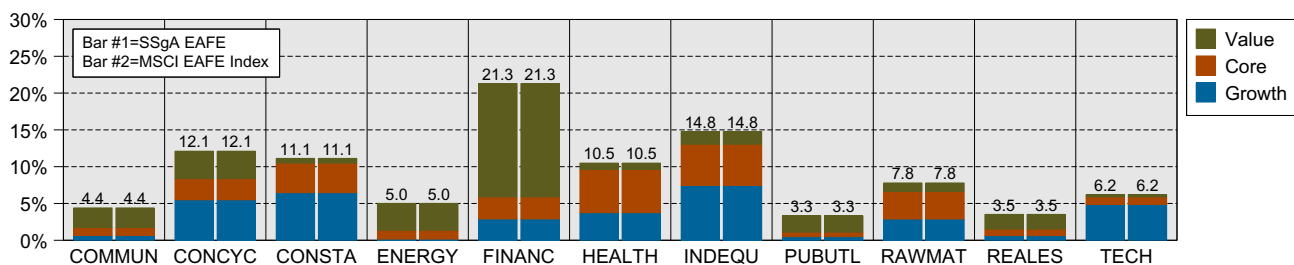
**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Europe/ Mid East	20.1% (130)	20.3% (127)	23.2% (198)	63.6% (455)
N. America	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Pacific	14.2% (149)	9.6% (147)	12.6% (175)	36.4% (471)
Emerging	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
<b>Total</b>	<b>34.3% (279)</b>	<b>29.9% (274)</b>	<b>35.8% (373)</b>	<b>100.0% (926)</b>

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



**Sector Weights Distribution Holdings as of September 30, 2017**



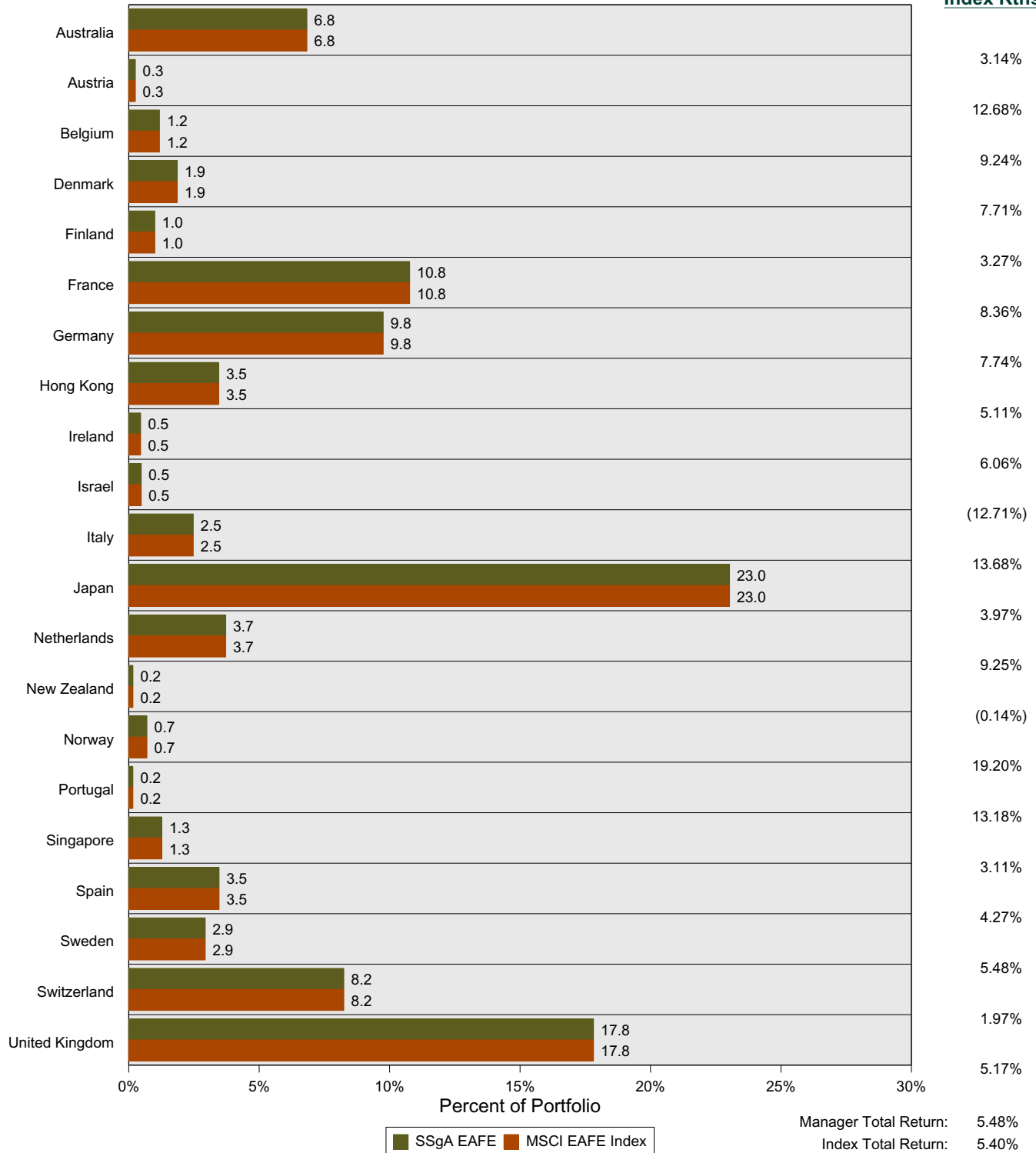
## Country Allocation SSgA EAFE VS MSCI EAFE Index

### Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2017. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

### Country Weights as of September 30, 2017

#### Index Rtns



## SSgA EAFE

### Top 10 Portfolio Holdings Characteristics as of September 30, 2017

#### 10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Nestle S A Shs Nom New	Consumer Staples	\$198,791	1.8%	(3.81)%	260.86	21.87	2.84%	6.05%
Hsbc Holdings (Gb)	Financials	\$151,110	1.4%	8.04%	199.23	13.79	5.55%	8.05%
Novartis	Health Care	\$145,233	1.3%	2.82%	224.21	16.75	3.32%	5.34%
Roche Hldgs Ag Basel Div Rts Ctf	Health Care	\$136,788	1.2%	0.19%	179.50	15.24	3.32%	6.65%
Toyota Motor Corp	Consumer Discretionary	\$118,587	1.1%	13.67%	194.51	10.61	3.13%	7.00%
British American Tobacco	Consumer Staples	\$109,871	1.0%	(6.73)%	143.76	15.32	3.74%	10.50%
Royal Dutch Shell A Shs	Energy	\$102,920	0.9%	15.95%	137.37	15.05	6.53%	26.40%
Total Sa Act	Energy	\$96,576	0.9%	10.30%	134.35	12.99	5.41%	8.90%
Bp Plc Shs	Energy	\$96,041	0.9%	13.19%	126.84	18.34	6.60%	51.85%
Royal Dutch Shell 'b' Shs	Energy	\$87,871	0.8%	16.80%	115.30	15.80	6.49%	34.85%

#### 10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Fiat Chrysler Automobiles N Shs	Consumer Discretionary	\$14,609	0.1%	70.95%	27.55	6.30	0.00%	43.32%
Yaskawa Electric Corp Ord	Information Technology	\$6,115	0.1%	50.13%	8.45	23.92	0.56%	33.93%
Next Group Plc Shs	Consumer Discretionary	\$7,909	0.1%	46.48%	10.35	13.10	3.00%	(6.11)%
Li & Fung Ltd Ord New	Consumer Discretionary	\$2,253	0.0%	42.17%	4.25	15.69	5.87%	2.38%
Anglo American Plc Shs	Materials	\$18,276	0.2%	39.02%	25.24	9.80	2.74%	(8.27)%
Santos	Energy	\$4,507	0.0%	35.72%	6.57	21.31	0.00%	74.01%
Stmicroelectronics N V Shs	Information Technology	\$9,401	0.1%	35.34%	17.63	19.77	1.35%	61.40%
Worldpay Group Plc	Information Technology	\$8,323	0.1%	33.80%	10.92	27.30	0.53%	13.48%
Raiffeisen Bk Intl Ag Wien Shs	Financials	\$3,781	0.0%	32.99%	11.03	10.66	0.00%	23.20%
Nexon	Information Technology	\$3,908	0.0%	32.30%	11.51	17.50	0.00%	54.20%

#### 10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Provident Financial Plc Shs	Financials	\$1,259	0.0%	(64.74)%	1.65	8.86	16.21%	(5.80)%
Teva Pharmaceutical Inds Ltd Adr	Health Care	\$12,245	0.1%	(46.74)%	17.87	4.22	6.36%	(2.05)%
Siemens Gamesa Renewable Enr Shs	Industrials	\$2,372	0.0%	(38.47)%	8.89	12.34	18.68%	3.60%
Carphone Whse.Gp.	Consumer Discretionary	\$1,938	0.0%	(34.14)%	3.00	7.04	5.82%	(2.50)%
Orion Corp New Shs B	Health Care	\$3,663	0.0%	(27.20)%	4.83	22.60	3.95%	1.83%
Gemalto NV Shs	Information Technology	\$2,771	0.0%	(25.45)%	4.04	13.82	1.32%	3.90%
Healthscope	Health Care	\$1,734	0.0%	(21.08)%	2.28	16.18	4.19%	2.23%
Carrefour Sa Ord	Consumer Staples	\$8,736	0.1%	(20.00)%	15.66	13.92	4.09%	(1.31)%
Ericsson (Lm) B	Information Technology	\$13,417	0.1%	(19.78)%	17.60	23.20	2.14%	30.70%
Asics Corp Shs	Consumer Discretionary	\$1,815	0.0%	(19.55)%	2.98	19.09	1.40%	15.30%

## Pyrford Period Ended September 30, 2017

### Investment Philosophy

Pyrford's investment strategy is based on a value-driven, absolute return approach, with both top-down and bottom-up elements. At the country level they seek to invest in countries that offer an attractive market valuation relative to their long-term prospects. At the stock level they identify companies that offer excellent value relative to in-house forecasts of long-term (5 years) earnings growth. This approach is characterized by low absolute volatility and downside protection. Returns prior to 6/30/2017 are linked to a composite history.

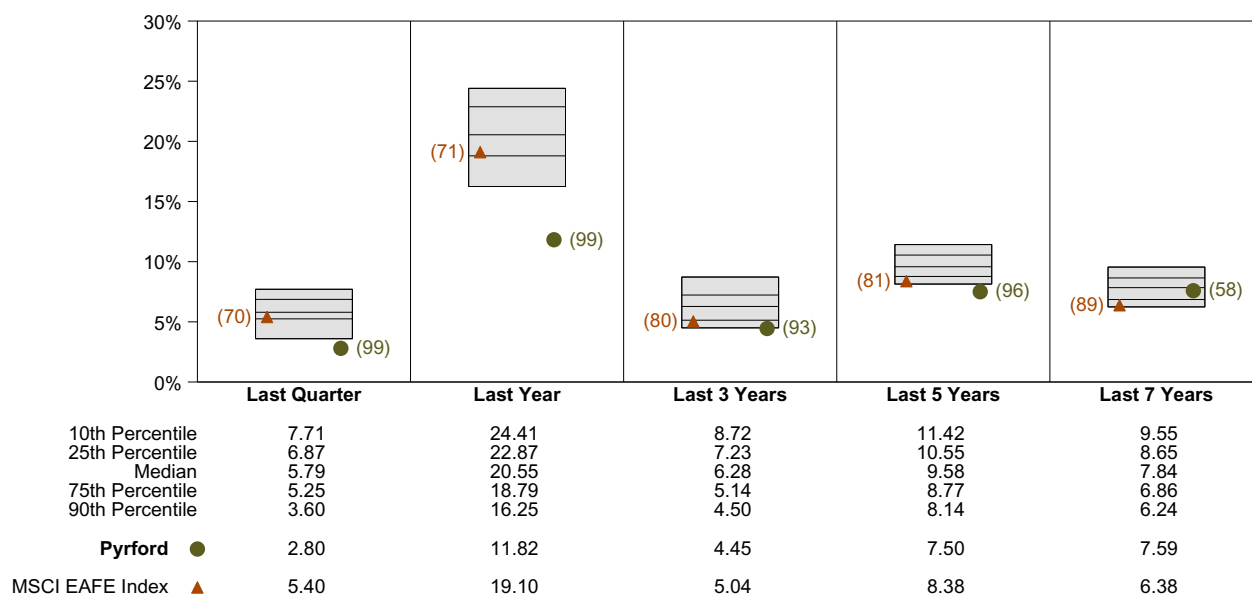
### Quarterly Summary and Highlights

- Pyrford's portfolio posted a 2.80% return for the quarter placing it in the 99 percentile of the Callan Non-US Developed Core Equity group for the quarter and in the 99 percentile for the last year.
- Pyrford's portfolio underperformed the MSCI EAFE Index by 2.61% for the quarter and underperformed the MSCI EAFE Index for the year by 7.28%.

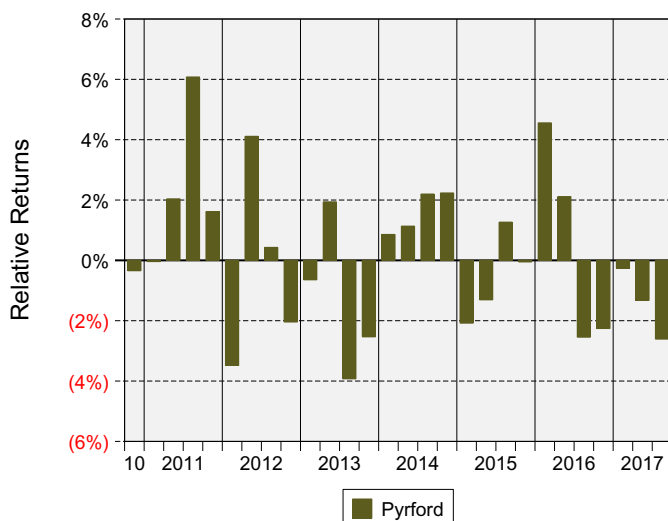
### Quarterly Asset Growth

Beginning Market Value	\$25,596,843
Net New Investment	\$0
Investment Gains/(Losses)	\$715,918
Ending Market Value	\$26,312,761

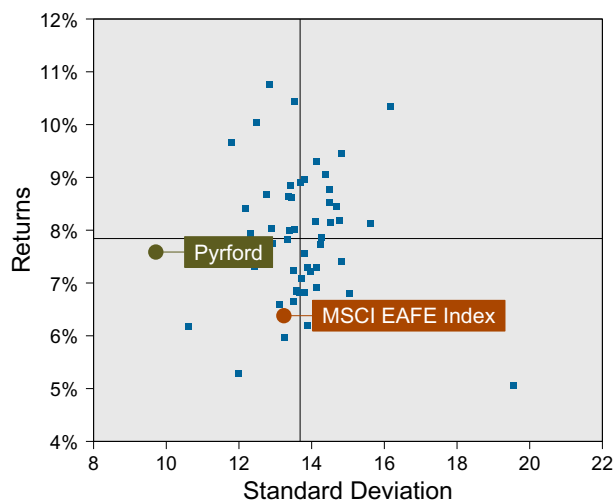
### Performance vs Callan Non-US Developed Core Equity (Gross)



### Relative Return vs MSCI EAFE Index



### Callan Non-US Developed Core Equity (Gross) Annualized Seven Year Risk vs Return

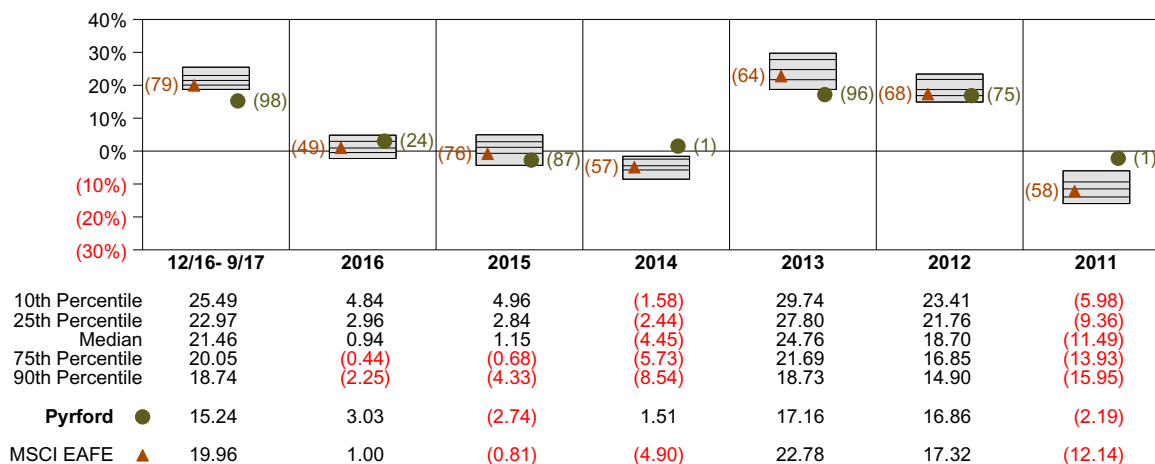


## Pyrford Return Analysis Summary

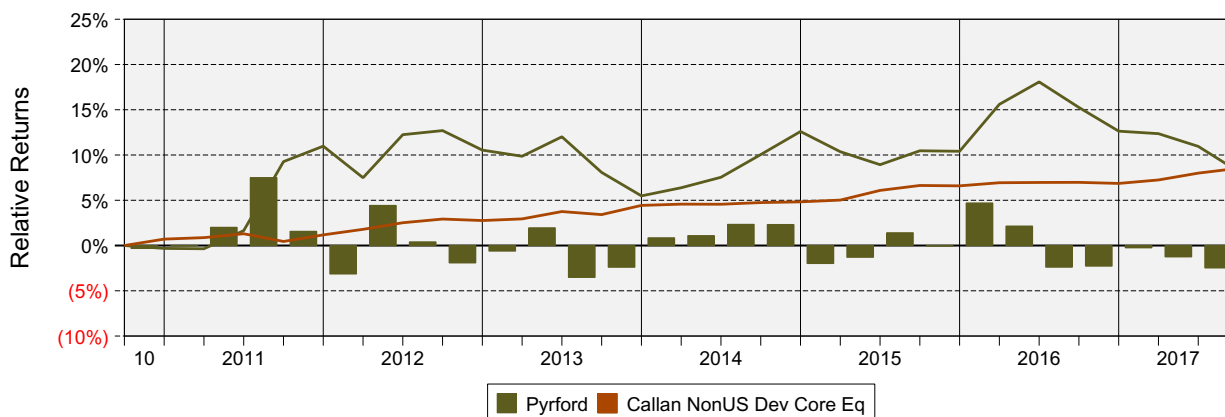
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

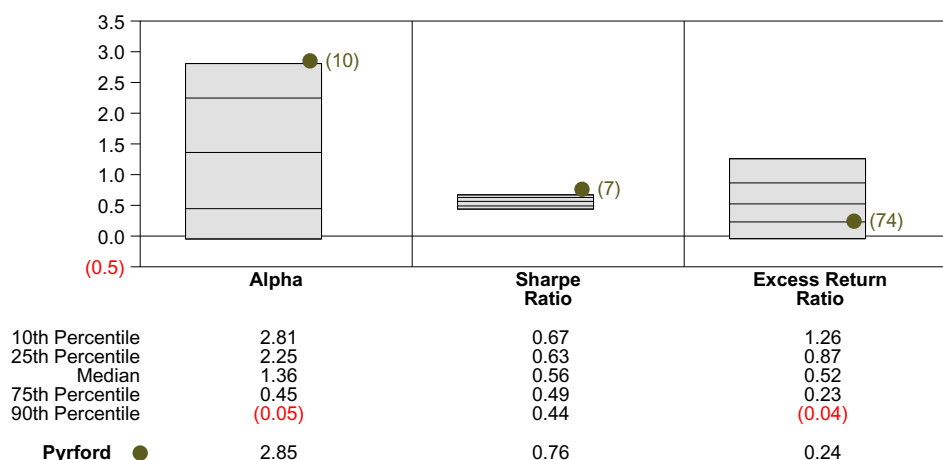
### Performance vs Callan Non-US Developed Core Equity (Gross)



### Cumulative and Quarterly Relative Return vs MSCI EAFE



### Risk Adjusted Return Measures vs MSCI EAFE Rankings Against Callan Non-US Developed Core Equity (Gross) Seven Years Ended September 30, 2017

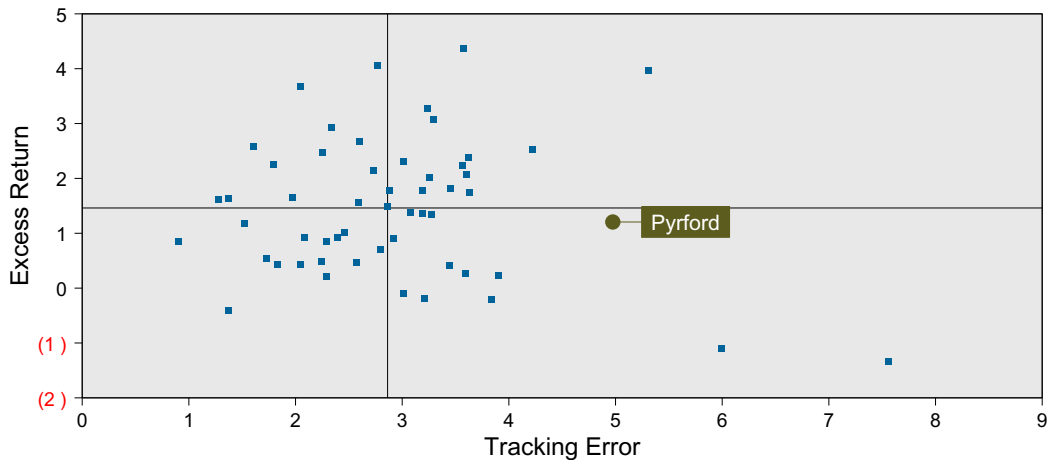


## Pyrford Risk Analysis Summary

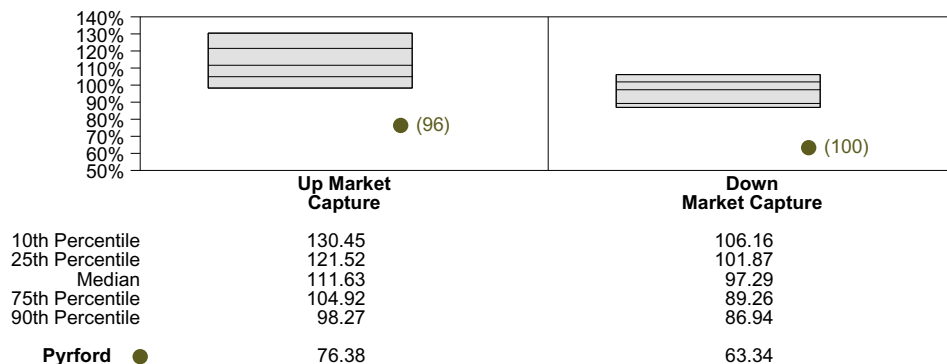
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

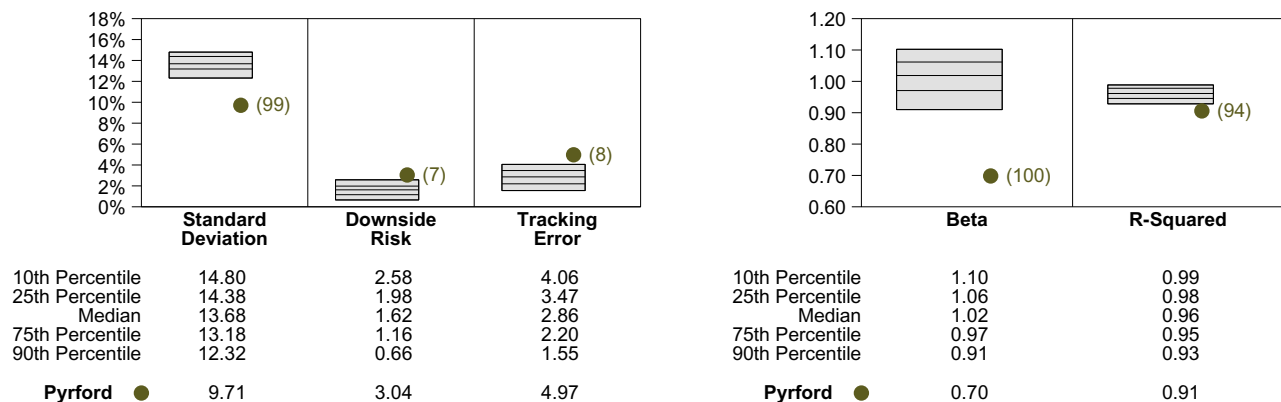
### Risk Analysis vs Callan Non-US Developed Core Equity (Gross) Seven Years Ended September 30, 2017



### Market Capture vs MSCI EAFE Index (USD Net Div) Rankings Against Callan Non-US Developed Core Equity (Gross) Seven Years Ended September 30, 2017



### Risk Statistics Rankings vs MSCI EAFE Index (USD Net Div) Rankings Against Callan Non-US Developed Core Equity (Gross) Seven Years Ended September 30, 2017

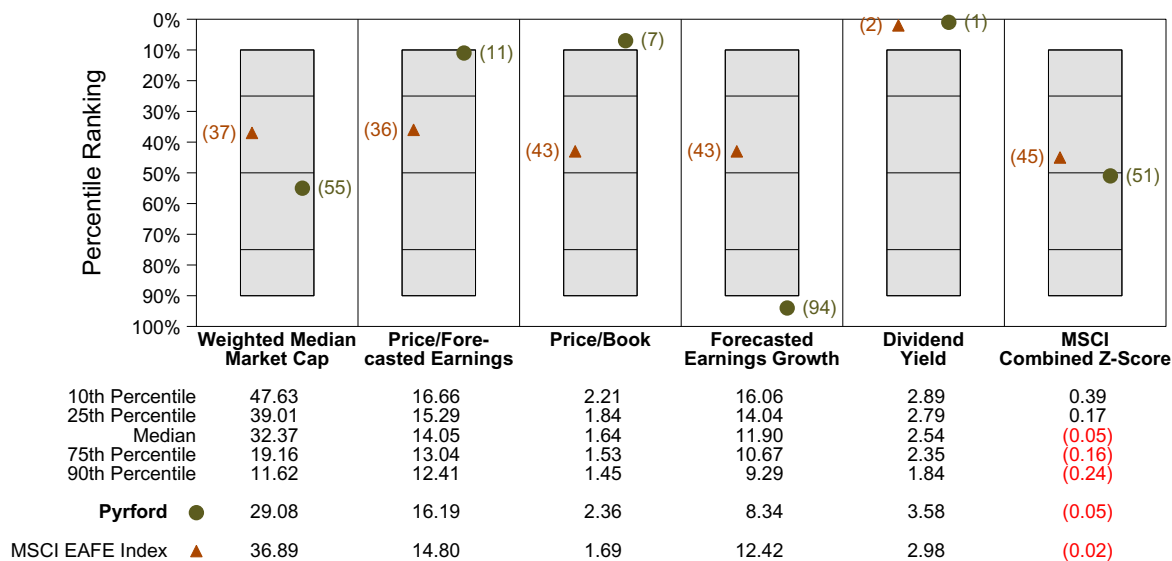


# Pyrford Equity Characteristics Analysis Summary

## Portfolio Characteristics

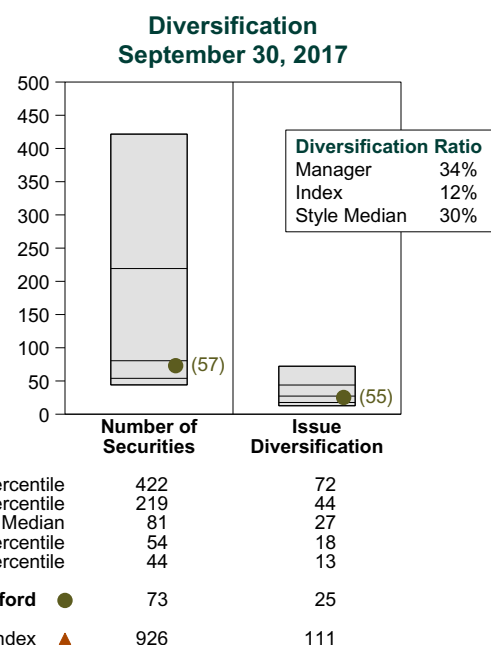
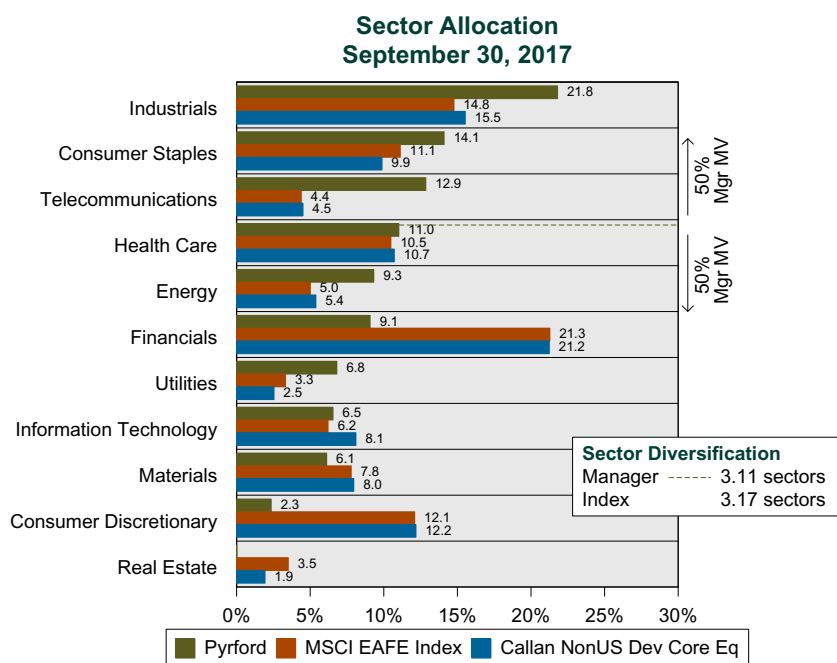
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

## Portfolio Characteristics Percentile Rankings Rankings Against Callan Non-US Developed Core Equity as of September 30, 2017



## Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





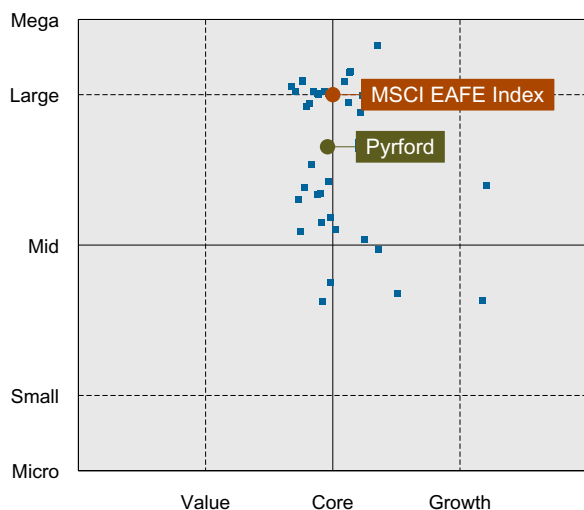
## Current Holdings Based Style Analysis

### Pyrford

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

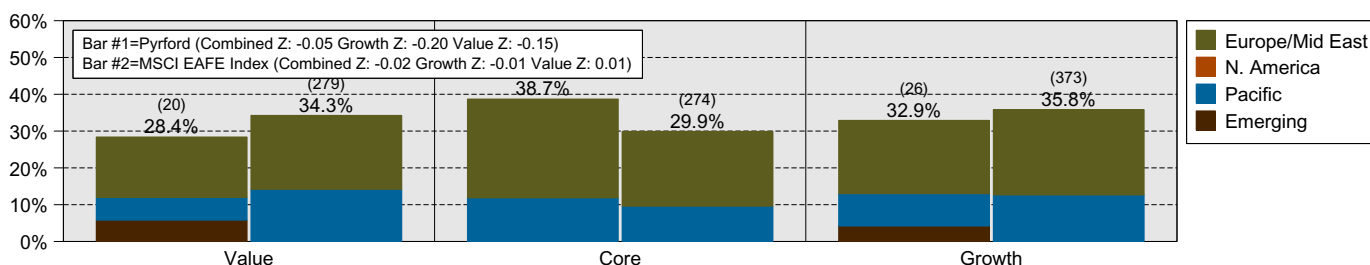
**Style Map vs Callan NonUS Dev Core Eq Holdings as of September 30, 2017**



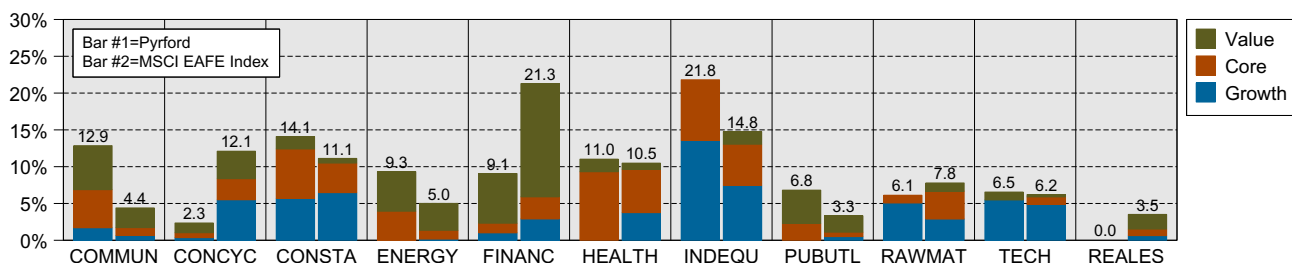
**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Europe/ Mid East	16.4% (11) 20.1% (130)	26.8% (15) 20.3% (127)	19.9% (15) 23.2% (198)	63.1% (41) 63.6% (455)
N. America	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (1) 0.0% (0)	0.0% (1) 0.0% (0)
Pacific	6.2% (5) 14.2% (149)	11.9% (10) 9.6% (147)	8.8% (6) 12.6% (175)	26.8% (21) 36.4% (471)
Emerging	5.8% (4) 0.0% (0)	0.0% (0) 0.0% (0)	4.2% (4) 0.0% (0)	10.0% (8) 0.0% (0)
<b>Total</b>	<b>28.4% (20)</b> <b>34.3% (279)</b>	<b>38.7% (25)</b> <b>29.9% (274)</b>	<b>32.9% (26)</b> <b>35.8% (373)</b>	<b>100.0% (71)</b> <b>100.0% (926)</b>

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



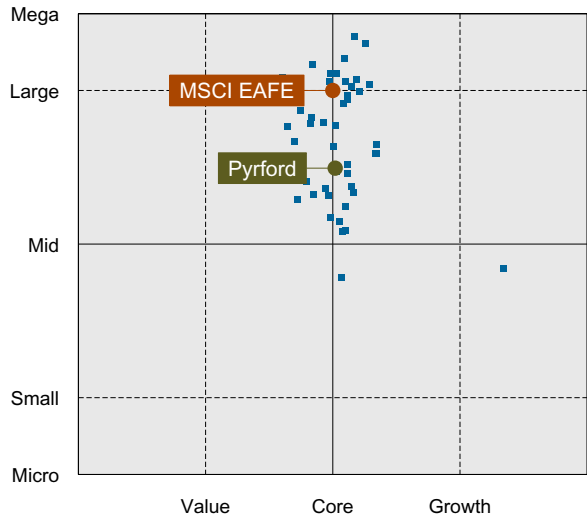
**Sector Weights Distribution Holdings as of September 30, 2017**



# Historical Holdings Based Style Analysis Pyrford For Five Years Ended September 30, 2017

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

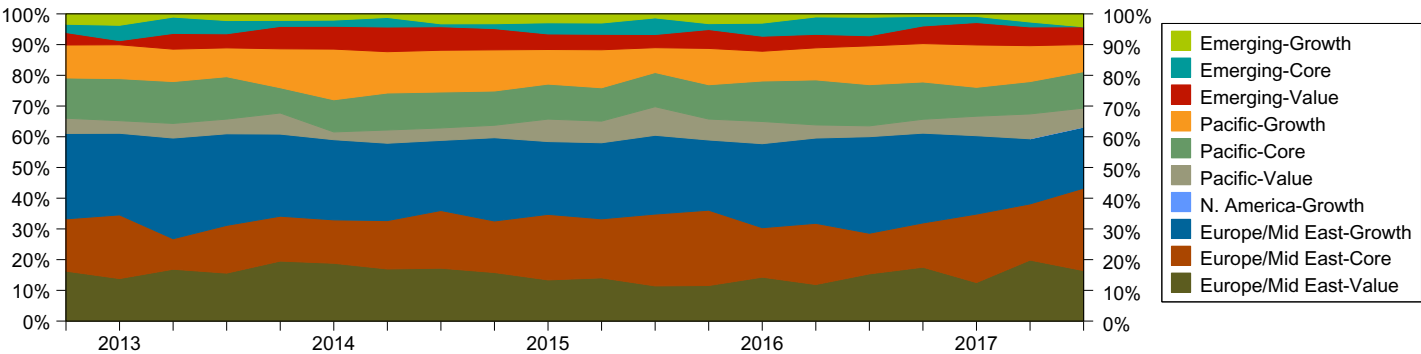
Average Style Map vs Callan NonUS Dev Core Eq Holdings for Five Years Ended September 30, 2017



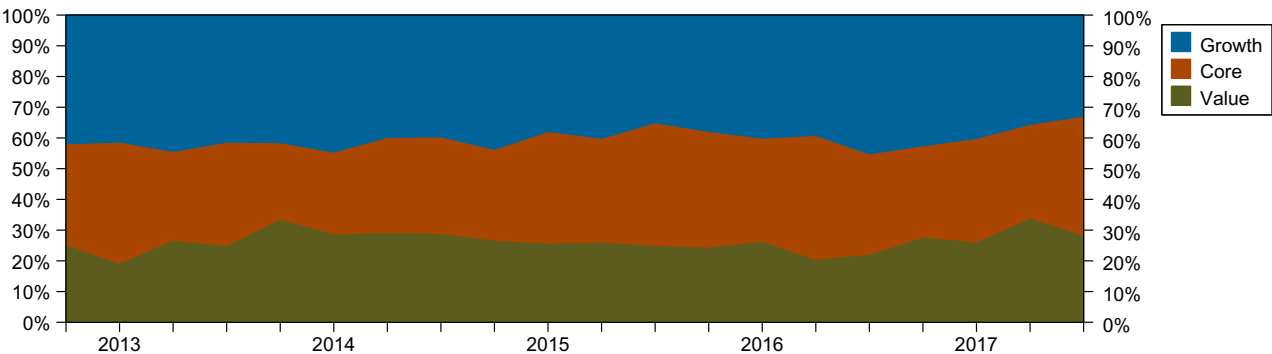
Average Style Exposure Matrix Holdings for Five Years Ended September 30, 2017

	15.5% (11)	18.1% (11)	26.2% (19)	59.8% (41)
Europe/ Mid East	19.5% (122)	18.9% (131)	26.1% (196)	64.5% (449)
N. America	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
	0.0% (1)	0.0% (0)	0.0% (0)	0.1% (1)
Pacific	5.6% (5)	11.9% (9)	11.7% (9)	29.1% (23)
	11.0% (134)	12.2% (155)	12.2% (174)	35.4% (463)
Emerging	5.5% (4)	3.2% (3)	2.3% (2)	11.0% (9)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Total	26.5% (20)	33.2% (23)	40.2% (30)	100.0% (73)
	30.6% (257)	31.1% (286)	38.3% (370)	100.0% (913)
	Value	Core	Growth	Total

Pyrford Historical Region/Style Exposures



Pyrford Historical Style Only Exposures



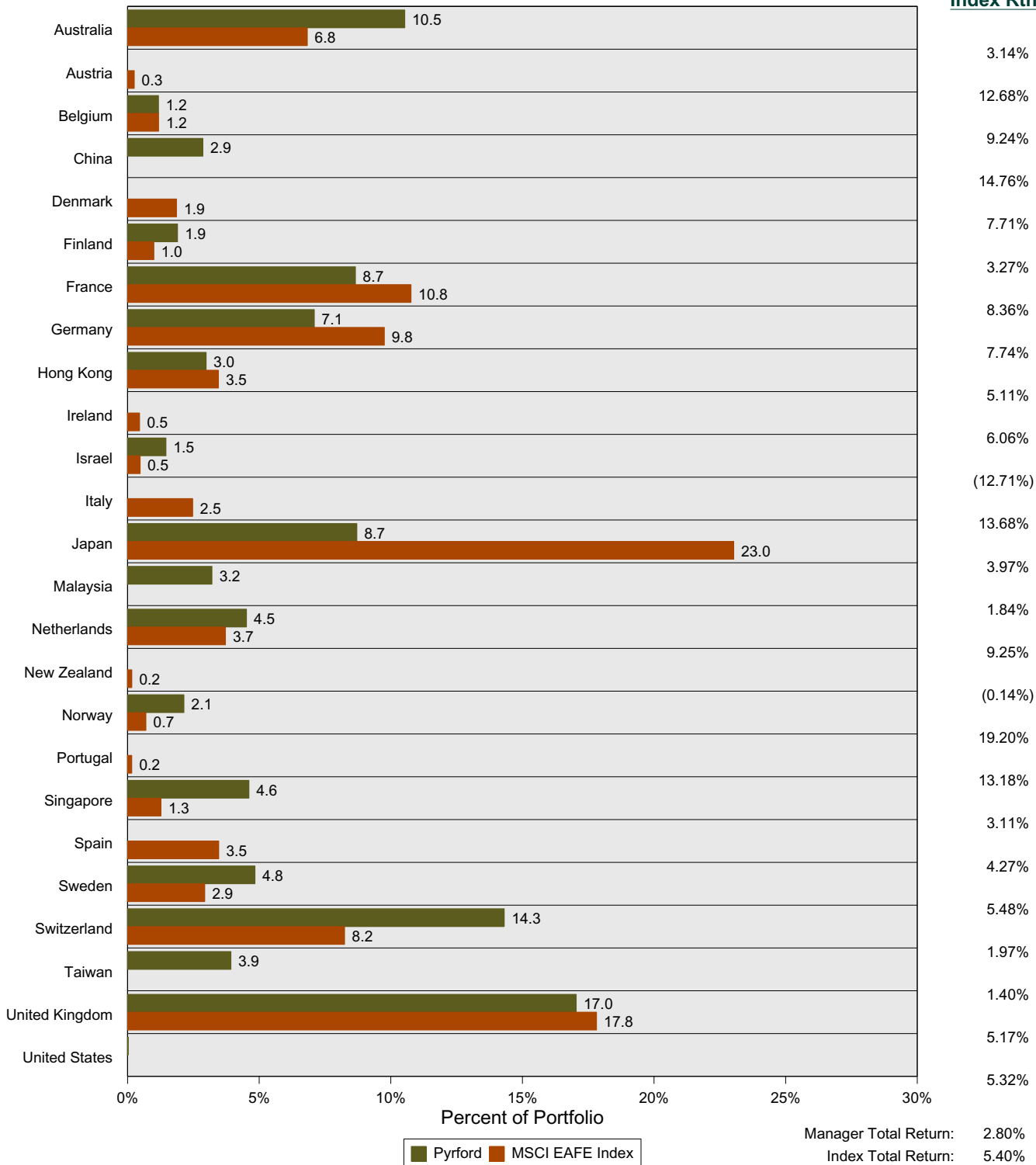
## Country Allocation Pyrford VS MSCI EAFE Index

### Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2017. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

### Country Weights as of September 30, 2017

### Index Rtns



# Pyrford

## Top 10 Portfolio Holdings Characteristics

### as of September 30, 2017

#### 10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Nestle S A Shs Nom New	Consumer Staples	\$917,023	3.5%	(3.81)%	260.86	21.87	2.84%	6.05%
Roche Hldgs Ag Basel Div Rts Ctf	Health Care	\$855,971	3.3%	0.19%	179.50	15.24	3.32%	6.65%
Novartis	Health Care	\$764,458	2.9%	2.82%	224.21	16.75	3.32%	5.34%
National Grid Ord	Utilities	\$569,707	2.2%	0.34%	42.22	14.57	5.70%	5.20%
Telenor Asa Shs	Telecommunications	\$563,616	2.1%	27.95%	31.76	16.08	4.63%	8.06%
Brambles Ltd Npv	Industrials	\$562,580	2.1%	(4.65)%	11.23	17.14	3.22%	3.67%
Atlas Copco Ab Shs A	Industrials	\$560,080	2.1%	10.34%	35.47	22.71	1.97%	14.60%
Sanofi Shs	Health Care	\$534,009	2.0%	3.96%	125.39	14.26	3.52%	6.75%
Woolworths Ltd	Consumer Staples	\$523,715	2.0%	2.97%	25.61	19.28	3.33%	8.18%
British American Tobacco	Consumer Staples	\$519,191	2.0%	(6.73)%	143.76	15.32	3.74%	10.50%

#### 10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Telenor Asa Shs	Telecommunications	\$563,616	2.1%	27.95%	31.76	16.08	4.63%	8.06%
Cnooc Ltd Shs	Energy	\$301,095	1.1%	20.38%	57.62	12.41	3.47%	335.83%
Deutsche Post Ag Bonn Namen Akt	Industrials	\$354,527	1.3%	19.16%	54.22	15.86	2.78%	6.00%
Bureau Veritas Registre Inte Shs	Industrials	\$318,182	1.2%	16.81%	11.41	22.31	2.52%	4.84%
Royal Dutch Shell 'b' Shs	Energy	\$307,611	1.2%	16.80%	115.30	15.80	6.49%	34.85%
Royal Dutch Shell A Shs	Energy	\$405,561	1.5%	15.95%	137.37	15.05	6.53%	26.40%
Bp Plc Shs	Energy	\$261,455	1.0%	13.19%	126.84	18.34	6.60%	51.85%
Rubis Ord Shs	Utilities	\$213,250	0.8%	12.66%	5.98	17.91	2.48%	12.40%
Toyota Tsusho Corp Shs	Industrials	\$216,519	0.8%	10.80%	11.62	10.50	1.89%	9.58%
Mg Technologies	Industrials	\$282,994	1.1%	10.35%	8.73	18.64	2.08%	12.47%

#### 10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Merida Industry Co.	Consumer Discretionary	\$94,067	0.4%	(16.54)%	1.30	18.28	3.03%	9.90%
Bezeq The Israeli Telecom Cp Ord	Telecommunications	\$383,934	1.5%	(15.55)%	3.85	9.47	9.46%	9.00%
Qbe Insurance Group Ltd Shs	Financials	\$311,816	1.2%	(12.23)%	10.73	11.62	5.49%	6.37%
Abc-Mart	Consumer Discretionary	\$176,132	0.7%	(9.38)%	4.36	16.41	2.02%	3.90%
British American Tobacco	Consumer Staples	\$519,191	2.0%	(6.73)%	143.76	15.32	3.74%	10.50%
Japan Tobacco Inc Ord	Consumer Staples	\$444,084	1.7%	(6.71)%	65.53	15.26	3.69%	2.90%
Comfortdelgro Corporation Lt Shs	Industrials	\$354,064	1.3%	(6.47)%	3.31	14.59	5.00%	3.94%
Nihon Kohden Corp Shs	Health Care	\$296,729	1.1%	(5.75)%	1.94	19.95	1.44%	(13.89)%
Koninklijke Vopak NV Rotterd Shs	Energy	\$346,926	1.3%	(5.27)%	5.61	15.22	2.83%	(0.85)%
Glaxosmithkline Plc Ord	Health Care	\$448,749	1.7%	(4.79)%	98.22	13.18	5.37%	4.20%

# AQR

## Period Ended September 30, 2017

### Investment Philosophy

Returns prior to 9/30/2016 are linked to a composite history.

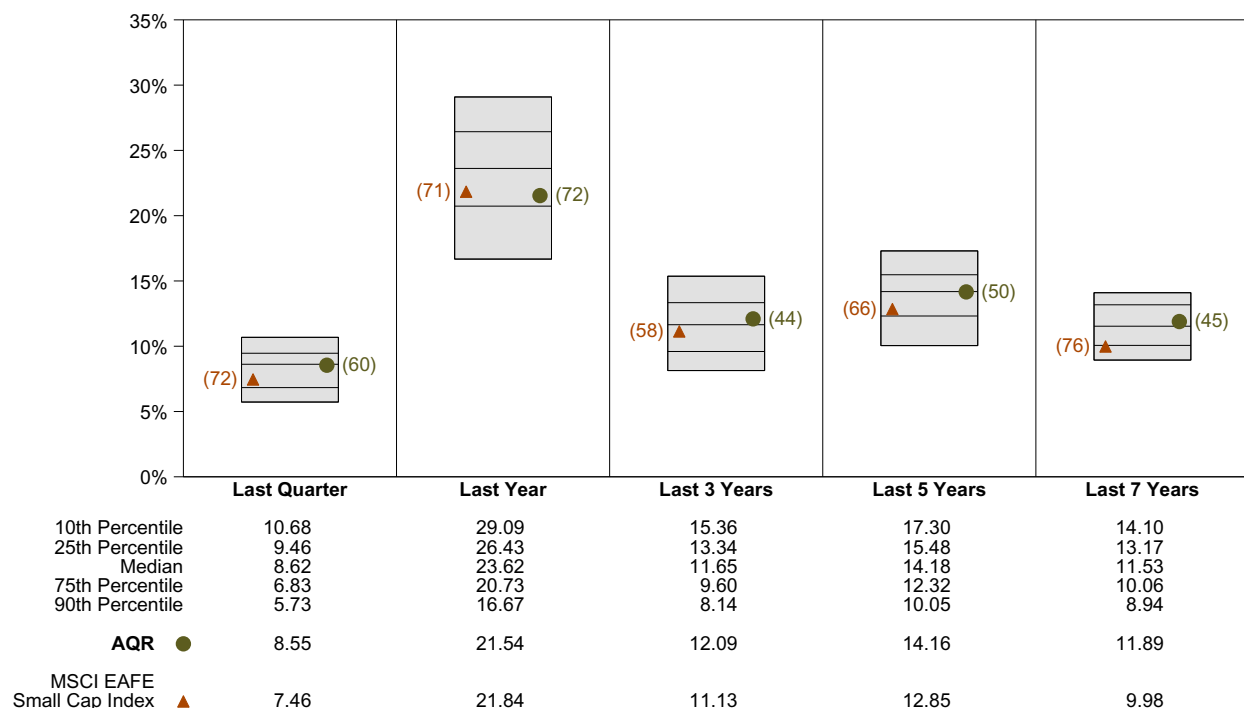
### Quarterly Summary and Highlights

- AQR's portfolio posted a 8.55% return for the quarter placing it in the 60 percentile of the Callan International Small Cap group for the quarter and in the 72 percentile for the last year.
- AQR's portfolio outperformed the MSCI EAFE Small Cap Index by 1.09% for the quarter and underperformed the MSCI EAFE Small Cap Index for the year by 0.30%.

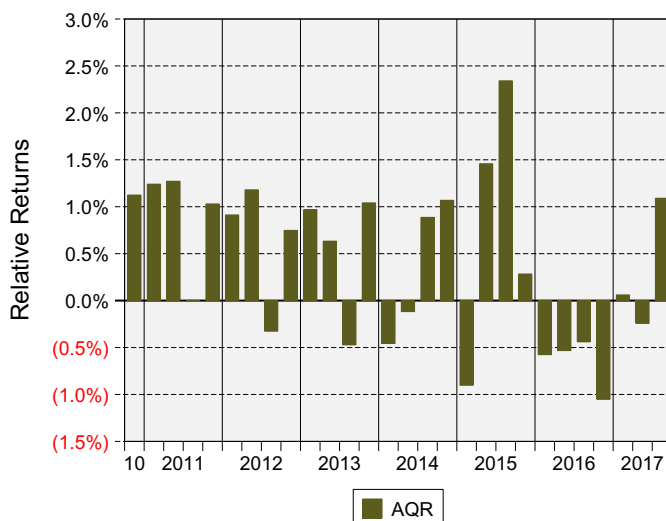
### Quarterly Asset Growth

Beginning Market Value	\$13,788,329
Net New Investment	\$0
Investment Gains/(Losses)	\$1,142,980
Ending Market Value	\$14,931,309

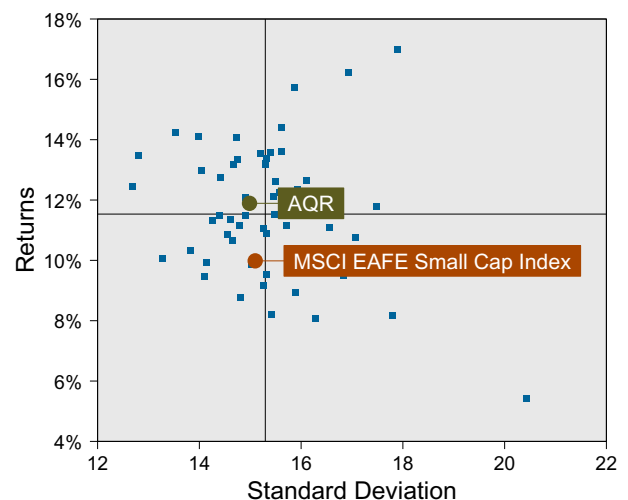
### Performance vs Callan International Small Cap (Gross)



### Relative Returns vs MSCI EAFE Small Cap Index



### Callan International Small Cap (Gross) Annualized Seven Year Risk vs Return

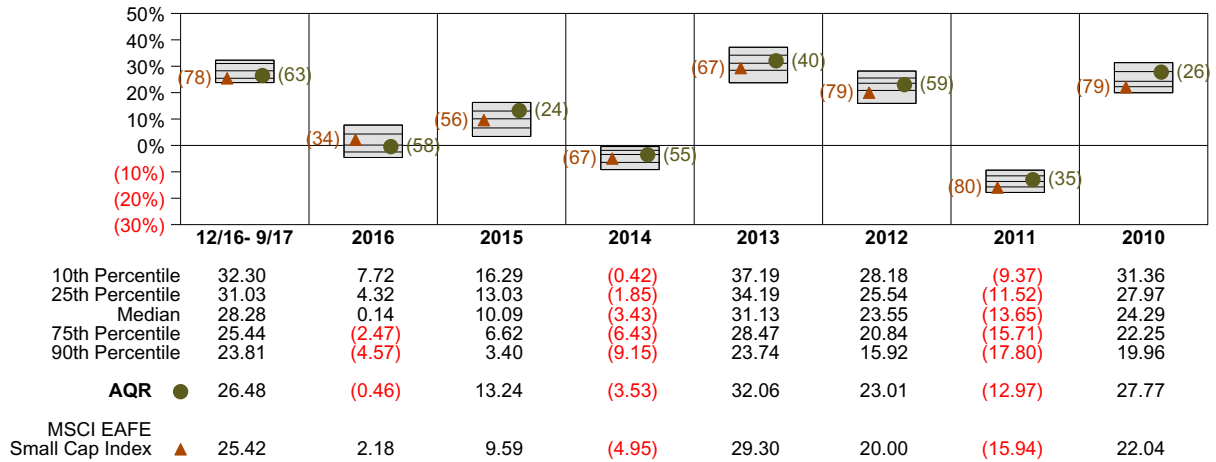


## AQR Return Analysis Summary

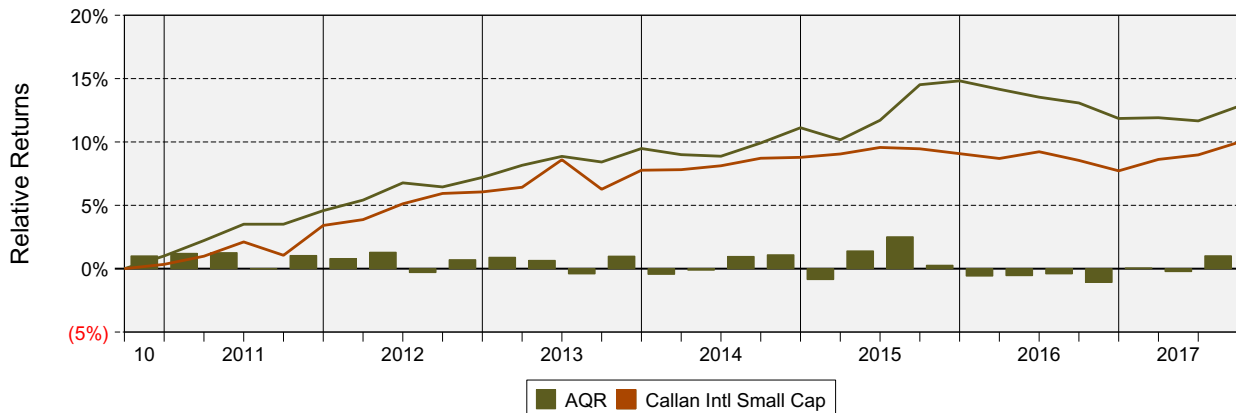
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

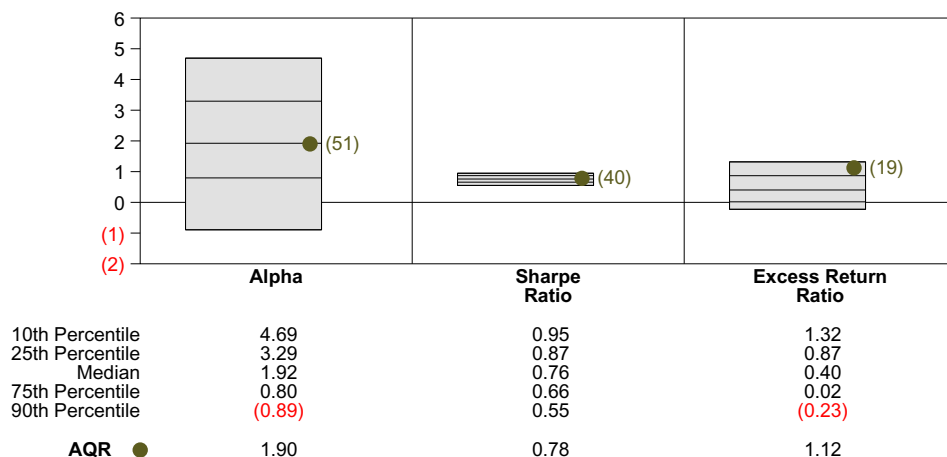
#### Performance vs Callan International Small Cap (Gross)



#### Cumulative and Quarterly Relative Return vs MSCI EAFE Small Cap Index



#### Risk Adjusted Return Measures vs MSCI EAFE Small Cap Index Rankings Against Callan International Small Cap (Gross) Seven Years Ended September 30, 2017

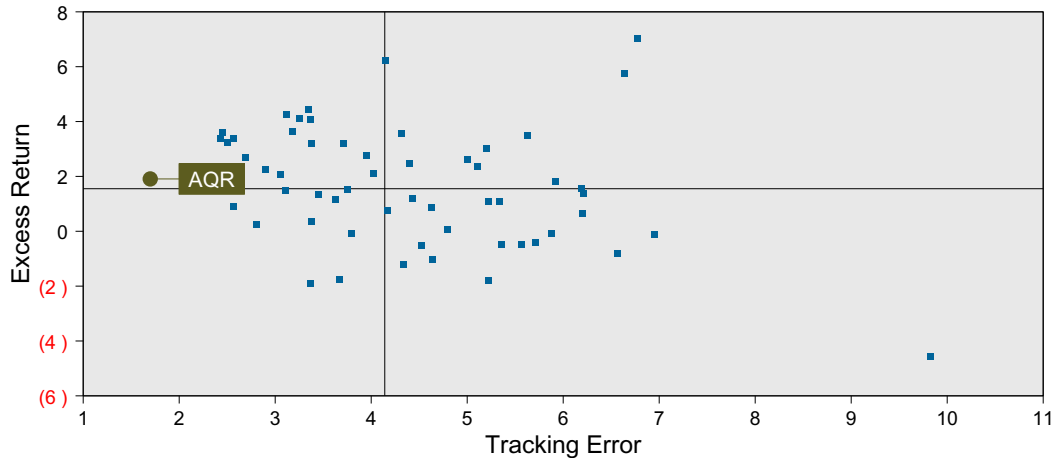


## AQR Risk Analysis Summary

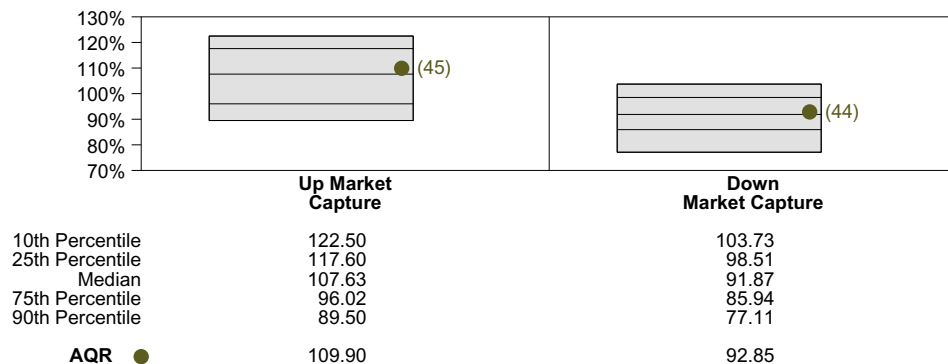
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

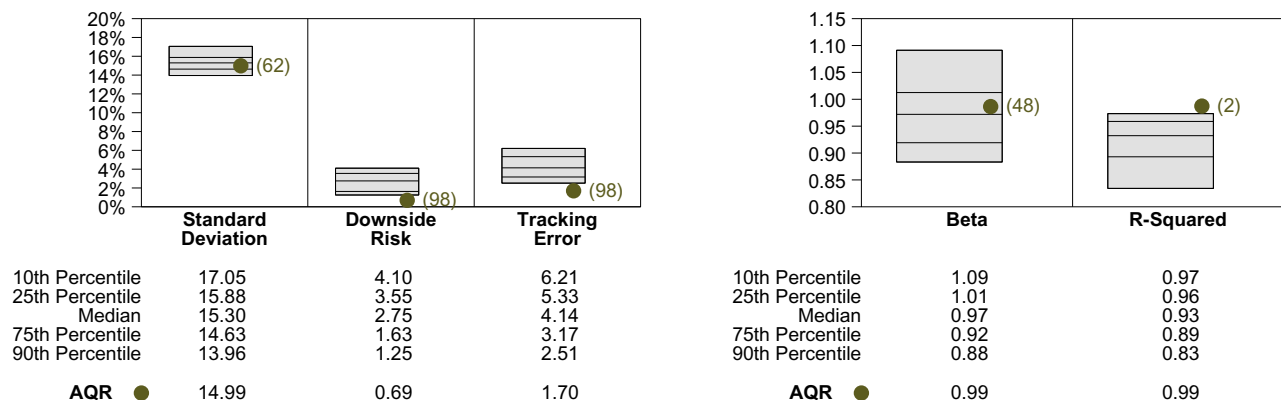
### Risk Analysis vs Callan International Small Cap (Gross) Seven Years Ended September 30, 2017



### Market Capture vs MSCI EAFE Small Cap Index Rankings Against Callan International Small Cap (Gross) Seven Years Ended September 30, 2017



### Risk Statistics Rankings vs MSCI EAFE Small Cap Index Rankings Against Callan International Small Cap (Gross) Seven Years Ended September 30, 2017

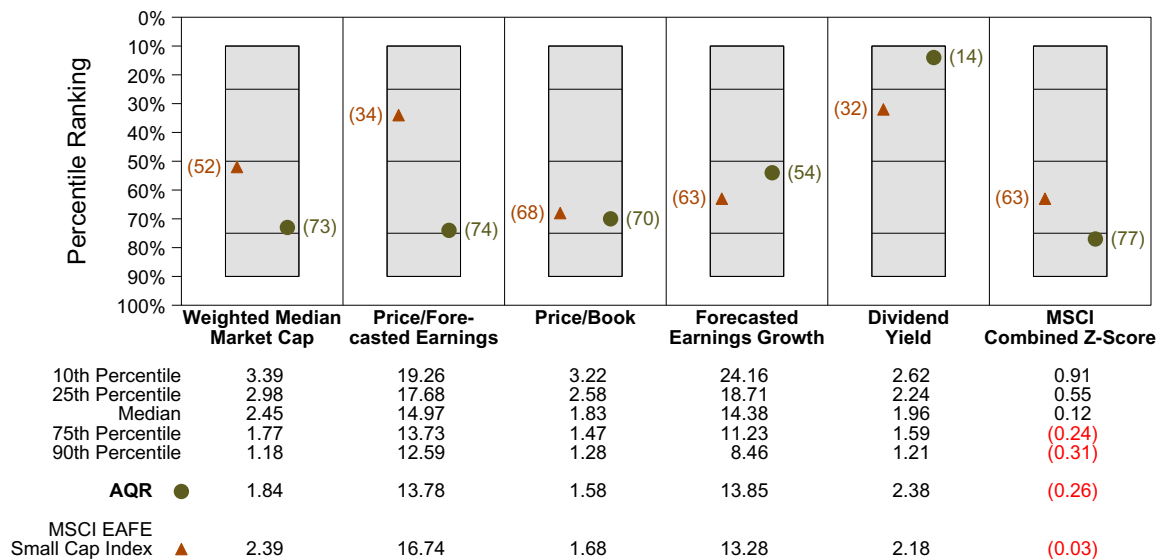


## AQR Equity Characteristics Analysis Summary

### Portfolio Characteristics

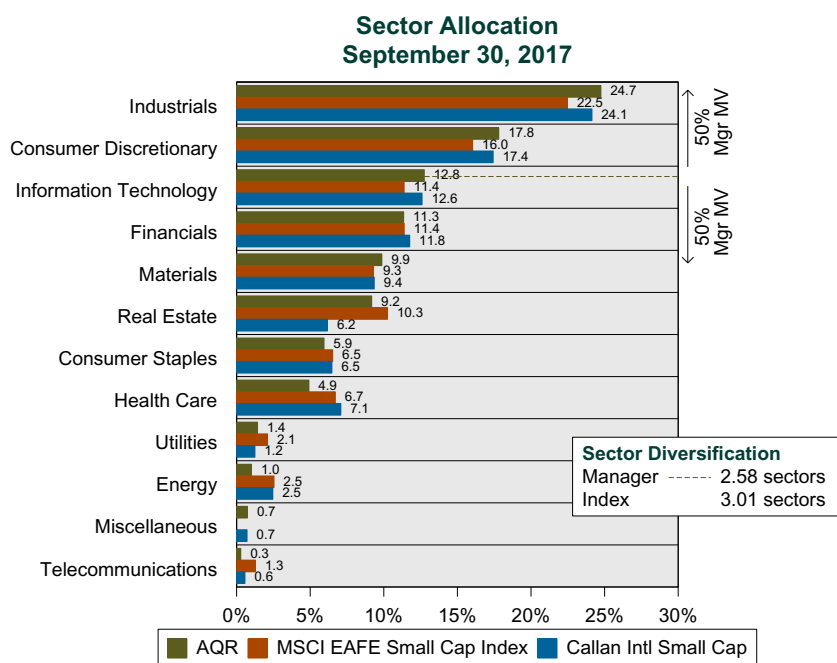
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan International Small Cap as of September 30, 2017

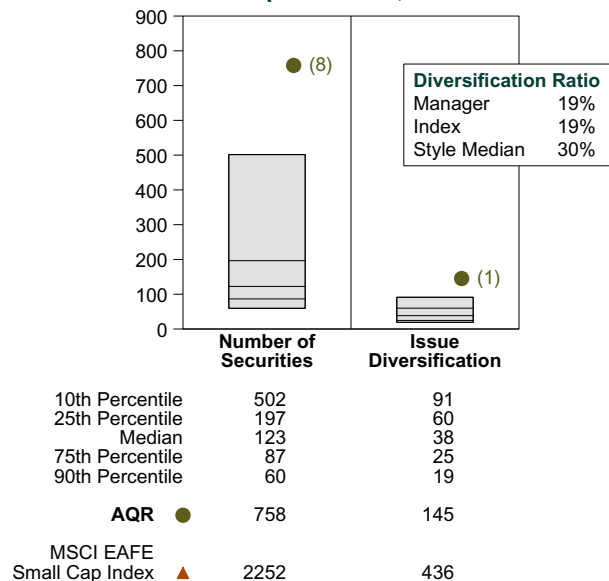


### Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



### Diversification September 30, 2017





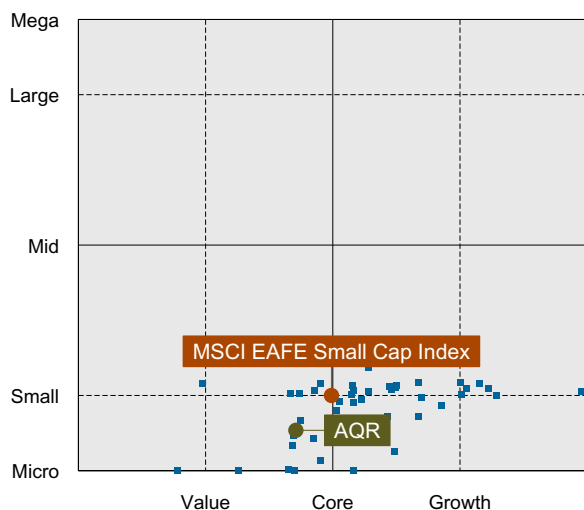
## Current Holdings Based Style Analysis

AQR

As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

**Style Map vs Callan Intl Small Cap Holdings as of September 30, 2017**

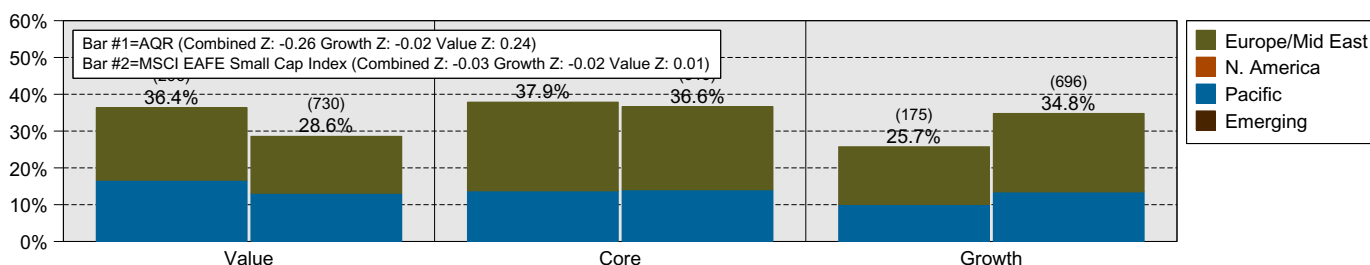


**Style Exposure Matrix Holdings as of September 30, 2017**

	Value	Core	Growth	Total
Europe/ Mid East	19.8% (128) 15.5% (302)	24.1% (142) 22.6% (394)	15.7% (94) 21.3% (331)	59.5% (364) 59.4% (1027)
N. America	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)
Pacific	16.6% (168) 13.1% (428)	13.8% (127) 14.1% (421)	10.1% (81) 13.5% (365)	40.5% (376) 40.6% (1214)
Emerging	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)
<b>Total</b>	<b>36.4% (296) 28.6% (730)</b>	<b>37.9% (269) 36.6% (815)</b>	<b>25.7% (175) 34.8% (696)</b>	<b>100.0% (740) 100.0% (2241)</b>

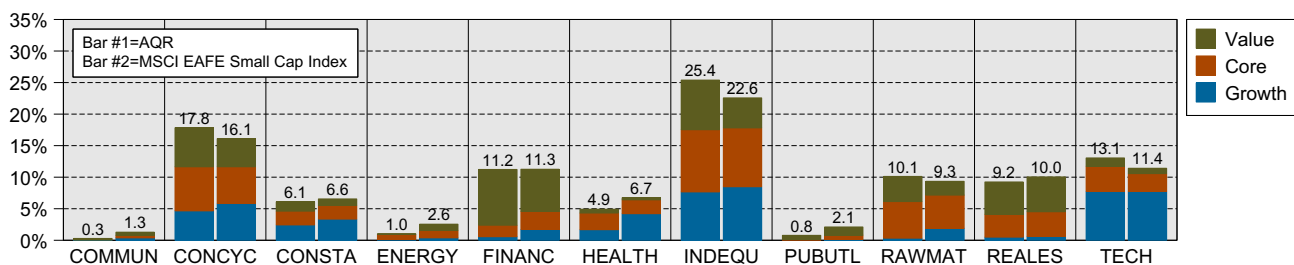
## Combined Z-Score Style Distribution

Holdings as of September 30, 2017



## Sector Weights Distribution

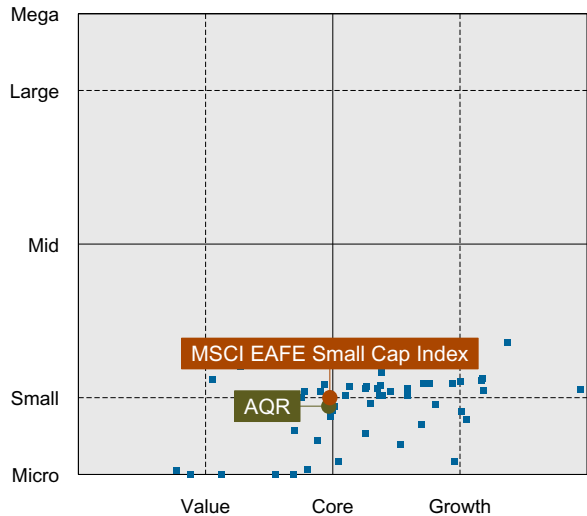
Holdings as of September 30, 2017



# Historical Holdings Based Style Analysis AQR For Five Years Ended September 30, 2017

This page analyzes the historical investment style of a portfolio utilizing a detailed holdings-based style analysis to determine average actual exposures to various region and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the average historical market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the average historical portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The next two style exposure charts illustrate the actual quarterly region/style and style only segment exposures of the portfolio through history.

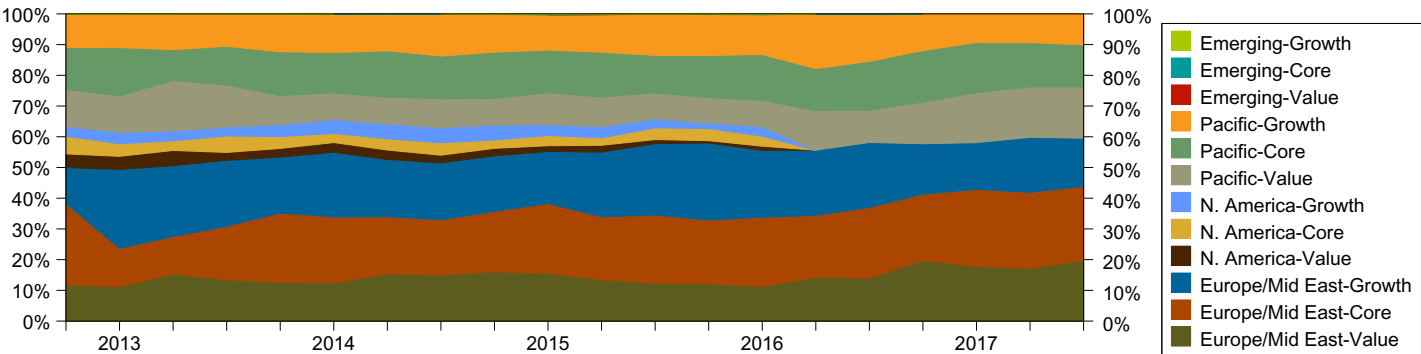
Average Style Map vs Callan Intl Small Cap Holdings for Five Years Ended September 30, 2017



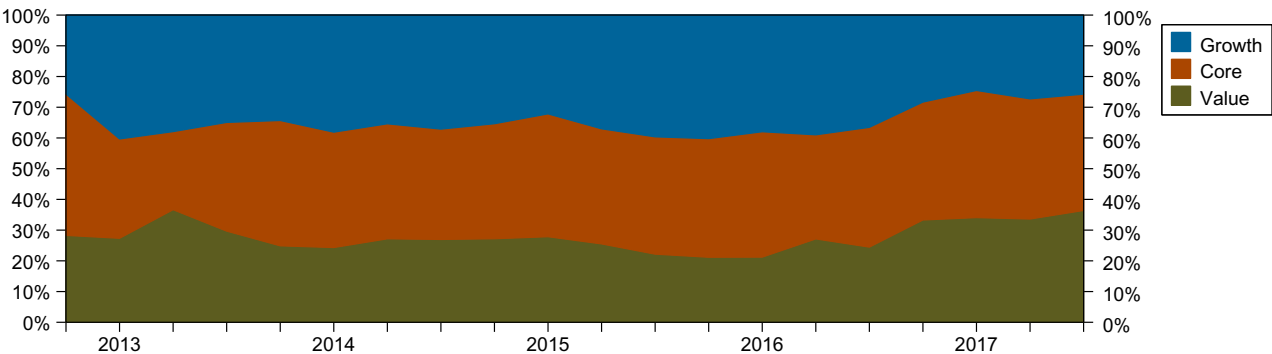
Average Style Exposure Matrix Holdings for Five Years Ended September 30, 2017

Europe/ Mid East	14.5% (95)	20.8% (109)	19.6% (88)	54.9% (292)
	15.6% (311)	21.7% (349)	20.7% (308)	58.1% (968)
N. America	1.9% (17)	2.6% (20)	2.5% (17)	7.0% (54)
	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Pacific	11.5% (122)	14.2% (119)	12.2% (88)	37.9% (329)
	13.3% (431)	14.6% (421)	13.7% (356)	41.7% (1208)
Emerging	0.0% (0)	0.0% (1)	0.1% (1)	0.1% (2)
	0.1% (3)	0.1% (3)	0.1% (2)	0.2% (8)
Total	28.0% (234)	37.7% (249)	34.4% (194)	100.0% (677)
	29.0% (745)	36.4% (773)	34.5% (666)	100.0% (2184)
	Value	Core	Growth	Total

AQR Historical Region/Style Exposures



AQR Historical Style Only Exposures



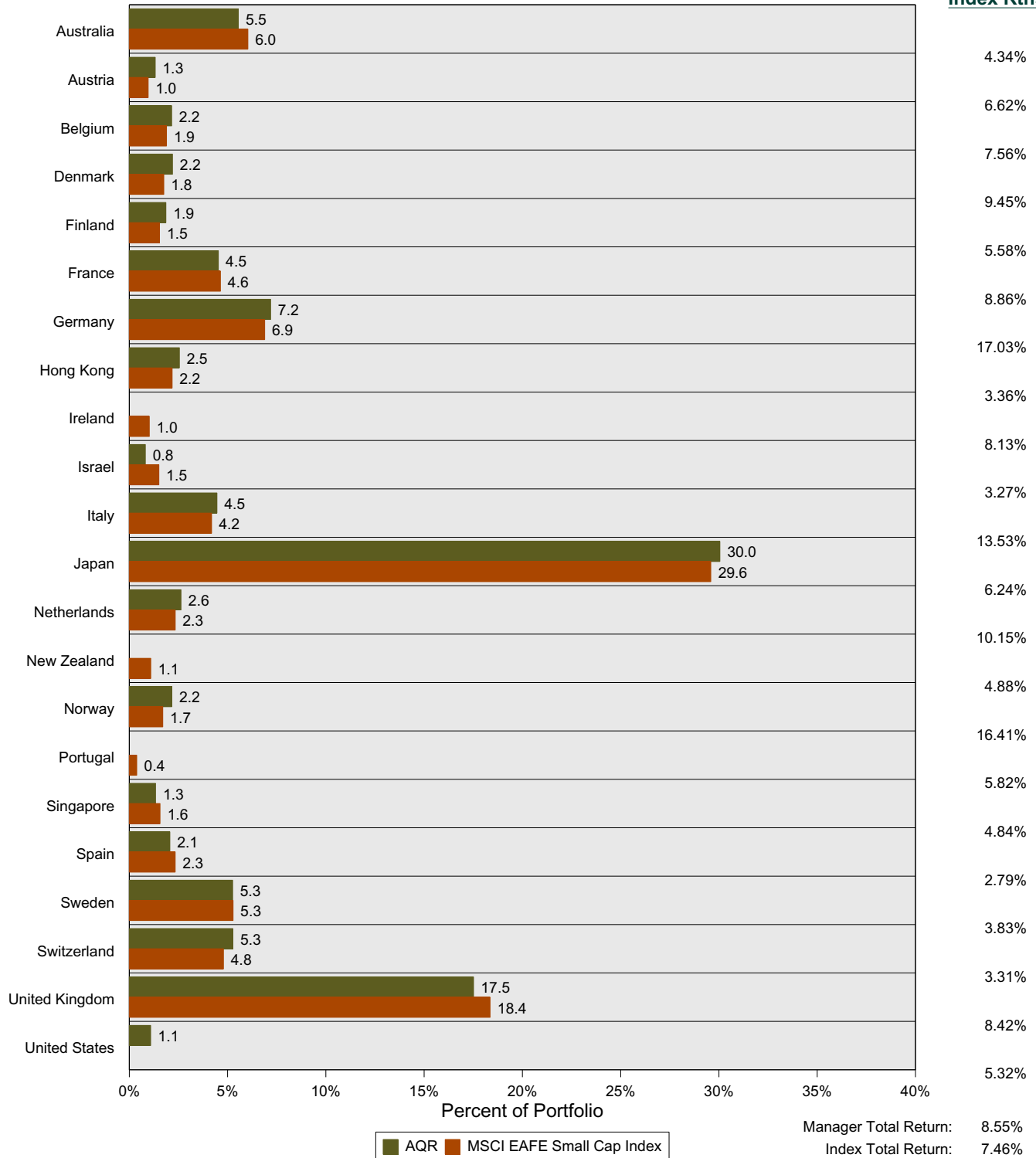
## Country Allocation AQR VS MSCI EAFE Small Cap Index

### Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2017. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

### Country Weights as of September 30, 2017

#### Index Rtns



## AQR

### Top 10 Portfolio Holdings Characteristics as of September 30, 2017

#### 10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
J M Ab Shs	Consumer Discretionary	\$159,072	1.1%	(11.29)%	2.23	10.15	3.71%	17.39%
Electrocomponent Plc Ord	Information Technology	\$150,091	1.0%	11.16%	3.68	23.53	1.98%	18.78%
Be Semiconductor Inds NV Bes Shs	Information Technology	\$108,562	0.7%	30.48%	2.79	15.67	2.96%	43.62%
Ence Energia Y Celulosa Sa Shs	Materials	\$105,699	0.7%	28.78%	1.28	15.21	2.46%	36.35%
Aurubis Ag Shs	Materials	\$99,276	0.7%	3.30%	3.64	13.30	1.82%	12.64%
Seino Transportation Co	Industrials	\$96,040	0.6%	6.40%	2.91	15.75	1.71%	9.42%
Scandic Hotels Group	Consumer Discretionary	\$95,099	0.6%	4.98%	1.41	14.14	2.82%	16.60%
Cembra Money Bank N Ord	Financials	\$92,190	0.6%	(7.57)%	2.63	17.15	5.25%	0.75%
Johnson Electric Hldgs Ltd Shs New	Industrials	\$83,998	0.6%	11.22%	3.36	11.76	1.68%	17.29%
Moneysupermarket Com Group P Shs	Information Technology	\$83,616	0.6%	(6.33)%	2.29	17.72	3.13%	8.94%

#### 10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Keywords Studios	Information Technology	\$4,854	0.0%	91.63%	1.04	45.21	0.10%	39.80%
Plus500 (Di)	Financials	\$40,127	0.3%	73.40%	1.37	8.53	5.29%	25.44%
Evraz Plc	Materials	\$65,356	0.4%	70.38%	6.01	8.00	7.38%	(20.00)%
Programmed Maint.Ser.	Industrials	\$7,967	0.1%	66.16%	0.61	16.63	2.33%	8.02%
Daifuku Co	Industrials	\$15,216	0.1%	65.42%	6.08	27.89	0.67%	24.99%
Fone Zone Group	Consumer Discretionary	\$5,240	0.0%	63.50%	0.20	9.43	9.79%	(9.22)%
Mineral Resources	Materials	\$54,882	0.4%	56.70%	2.39	11.88	3.32%	35.20%
Juventus Football Club Spa Shs	Consumer Discretionary	\$16,280	0.1%	55.58%	0.94	19.48	0.00%	-
Dno Asa Shs A	Energy	\$23,076	0.2%	50.38%	1.49	7.10	0.00%	(15.92)%
Autostrada Torino-Milano	Industrials	\$8,202	0.1%	50.37%	2.57	12.15	2.05%	(1.77)%

#### 10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/ Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Countrywide	Real Estate	\$2,426	0.0%	(33.40)%	0.34	6.74	0.00%	(4.86)%
Acacia Mng Plc Shs	Materials	\$8,426	0.1%	(32.64)%	1.07	5.97	3.35%	13.02%
Spire Healthcare Group Plc	Health Care	\$20,087	0.1%	(28.35)%	1.21	13.67	1.69%	14.00%
Elal	Industrials	\$7,283	0.0%	(27.00)%	0.34	(21.41)	8.80%	(9.70)%
Foxtons Group (Wi)	Real Estate	\$1,938	0.0%	(25.79)%	0.25	21.67	1.12%	(11.80)%
Bavarian Nordic Resh Institu Shs	Health Care	\$23,425	0.2%	(23.99)%	1.43	22.52	0.00%	0.00%
Fukui Computer Hldgs Inc Shs New	Information Technology	\$7,882	0.1%	(23.18)%	0.59	26.64	0.93%	29.76%
Gree Inc Tokyo Shs	Information Technology	\$6,072	0.0%	(20.71)%	1.65	19.46	1.43%	(23.06)%
Australian Pharm.Inds.	Health Care	\$17,167	0.1%	(19.11)%	0.57	11.93	4.70%	3.92%
Lenzing	Materials	\$69,963	0.5%	(18.94)%	3.85	11.94	2.44%	19.30%

## DFA Emerging Markets Period Ended September 30, 2017

### Investment Philosophy

Returns prior to 6/30/2013 are linked to a composite history.

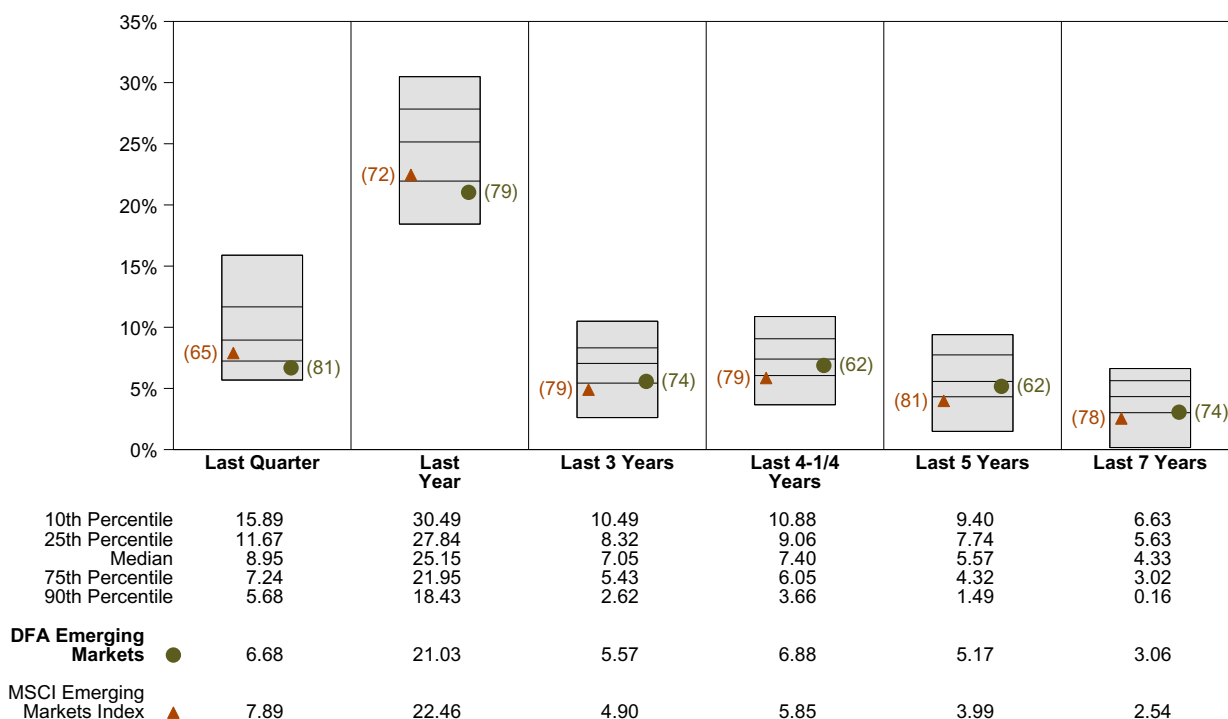
### Quarterly Summary and Highlights

- DFA Emerging Markets's portfolio posted a 6.68% return for the quarter placing it in the 81 percentile of the Callan Emerging Markets Equity Mutual Fu group for the quarter and in the 79 percentile for the last year.
- DFA Emerging Markets's portfolio underperformed the MSCI Emerging Markets Index by 1.21% for the quarter and underperformed the MSCI Emerging Markets Index for the year by 1.43%.

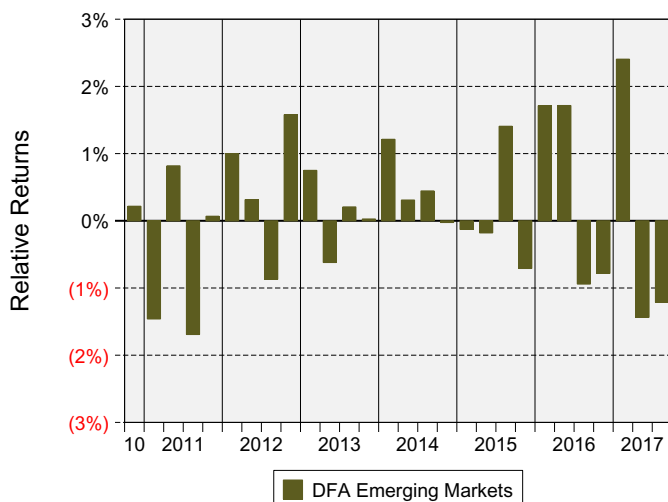
### Quarterly Asset Growth

Beginning Market Value	\$15,448,346
Net New Investment	\$0
Investment Gains/(Losses)	\$1,010,409
Ending Market Value	\$16,458,755

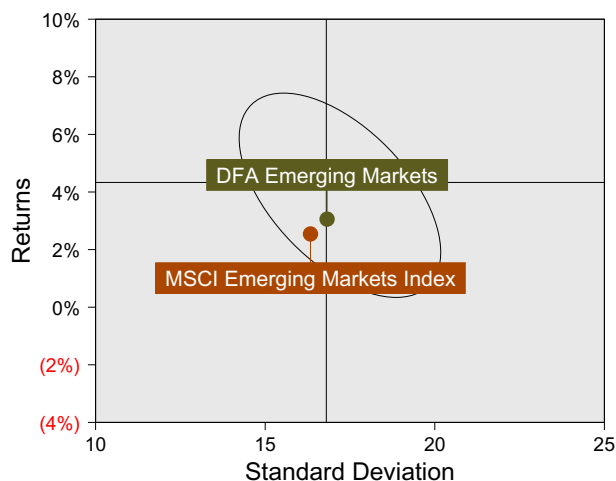
### Performance vs Callan Emerging Markets Equity Mutual Fu (Gross)



### Relative Returns vs MSCI Emerging Markets Index



### Callan Emerging Markets Equity Mutual Fu (Gross) Annualized Seven Year Risk vs Return

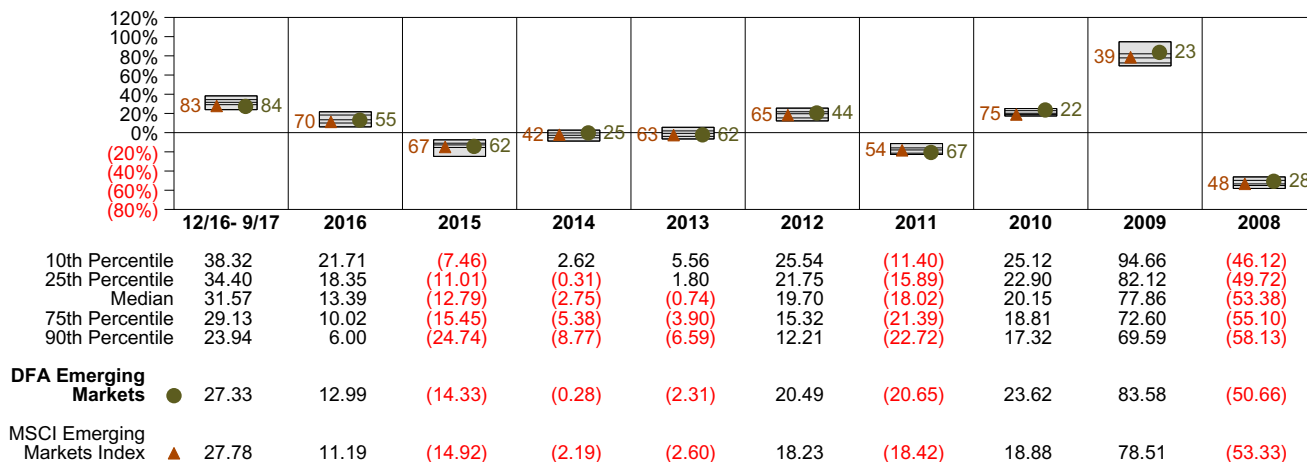


## DFA Emerging Markets Return Analysis Summary

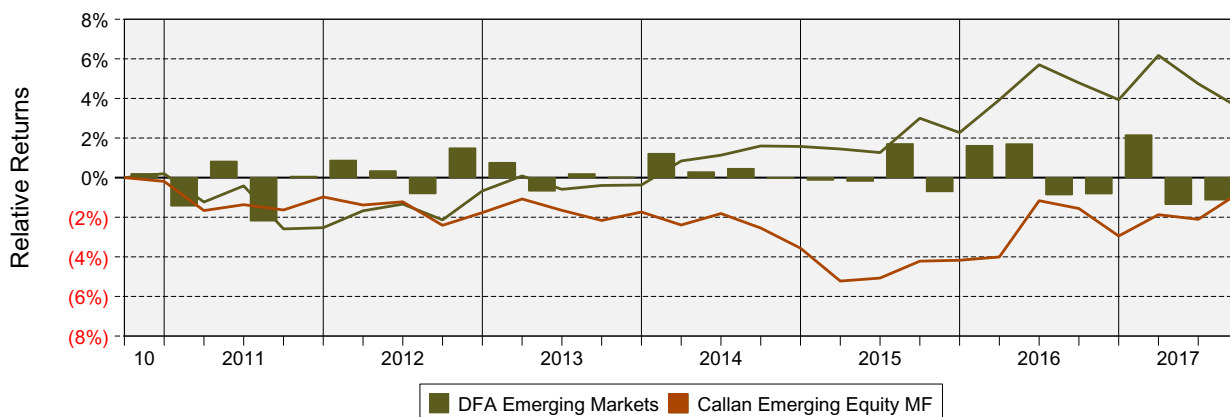
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

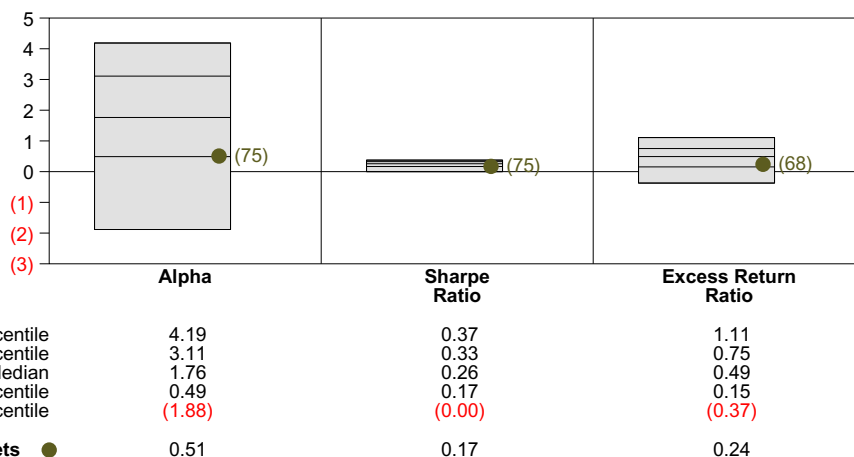
### Performance vs Callan Emerging Markets Equity Mutual Fu (Gross)



### Cumulative and Quarterly Relative Return vs MSCI Emerging Markets Index



### Risk Adjusted Return Measures vs MSCI Emerging Markets Index Rankings Against Callan Emerging Markets Equity Mutual Fu (Gross) Seven Years Ended September 30, 2017

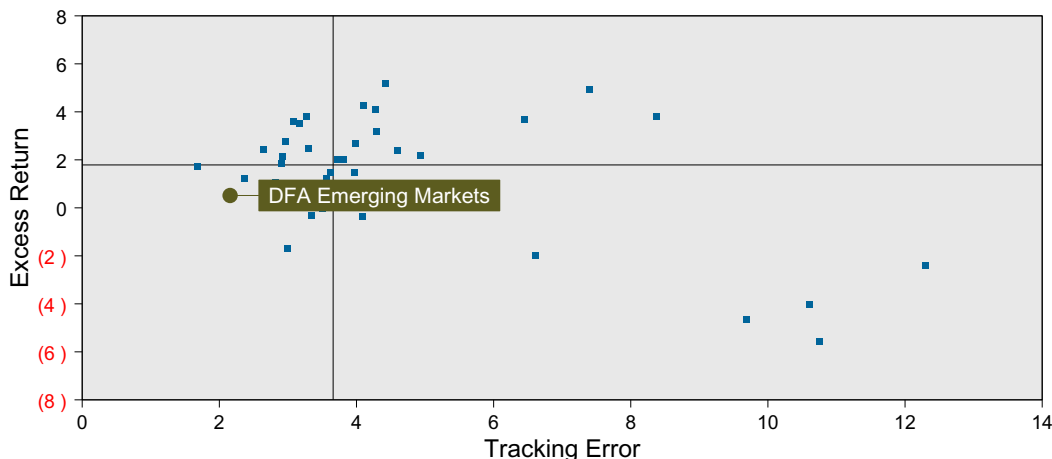


## DFA Emerging Markets Risk Analysis Summary

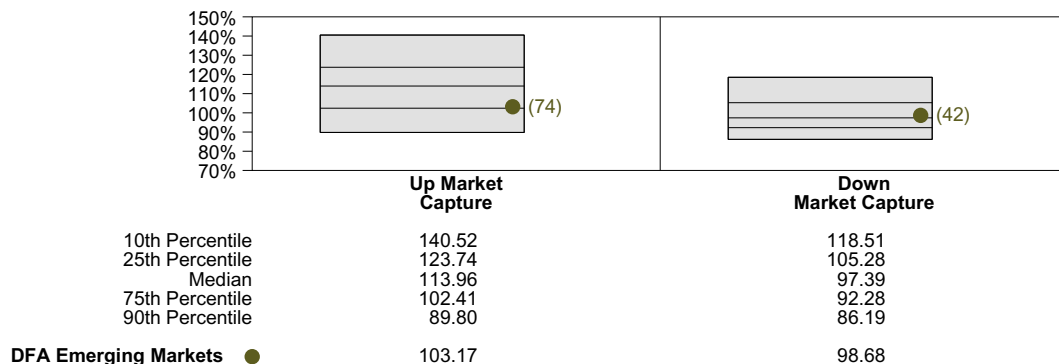
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

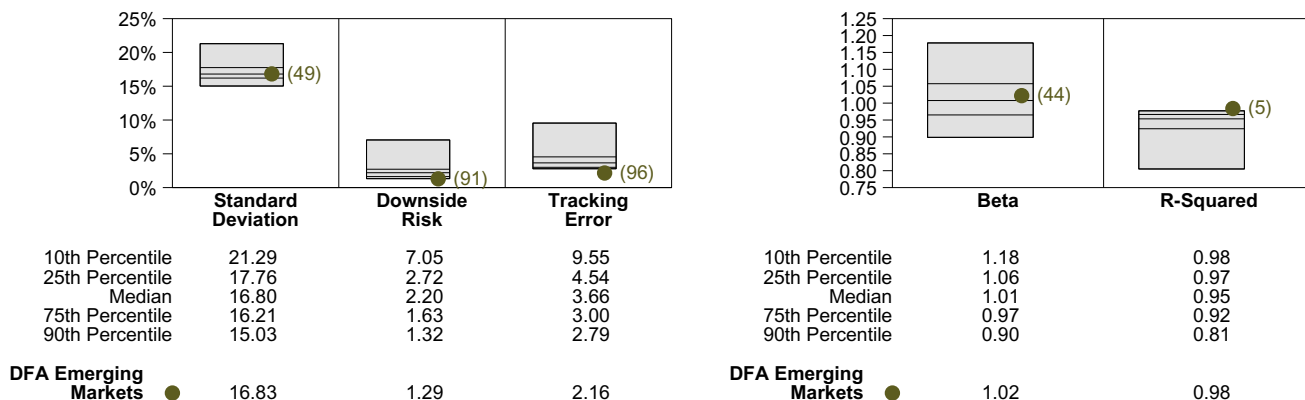
### Risk Analysis vs Callan Emerging Markets Equity Mutual Fu (Gross) Seven Years Ended September 30, 2017



### Market Capture vs MSCI Emerging Markets Index Rankings Against Callan Emerging Markets Equity Mutual Fu (Gross) Seven Years Ended September 30, 2017



### Risk Statistics Rankings vs MSCI Emerging Markets Index Rankings Against Callan Emerging Markets Equity Mutual Fu (Gross) Seven Years Ended September 30, 2017

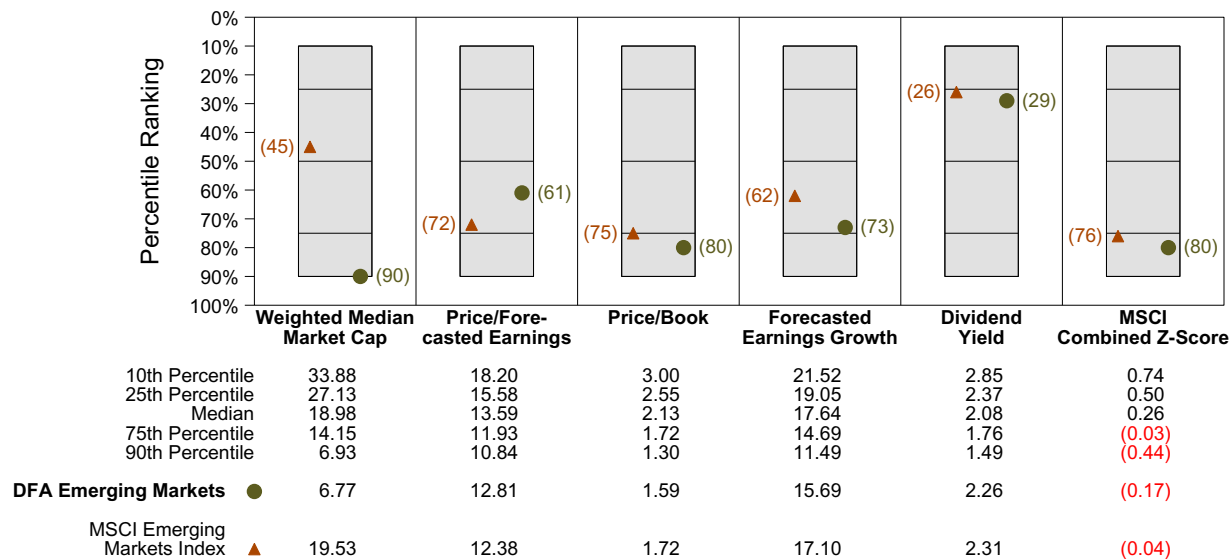


## DFA Emerging Markets Equity Characteristics Analysis Summary

### Portfolio Characteristics

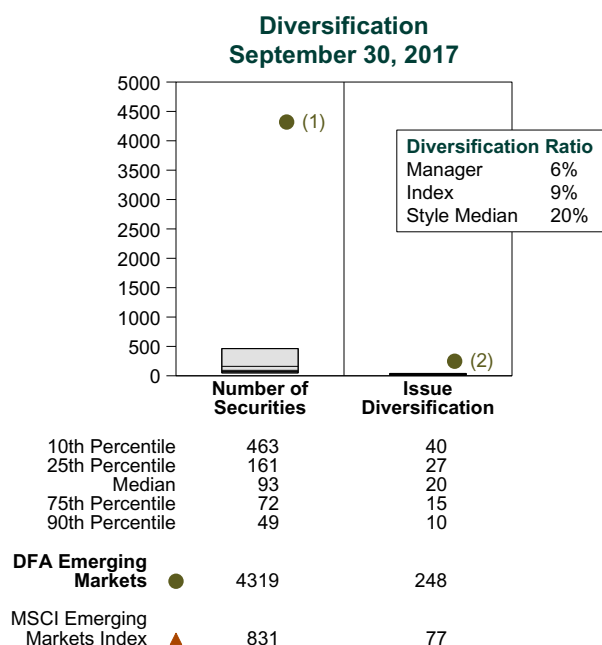
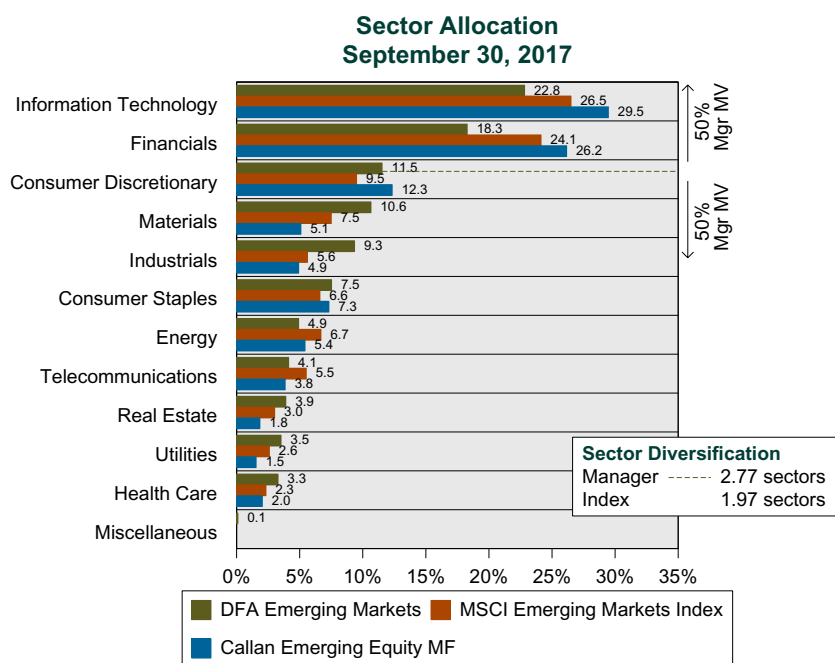
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Portfolio Characteristics Percentile Rankings Rankings Against Callan Emerging Markets Equity Mutual Fu as of September 30, 2017



### Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.





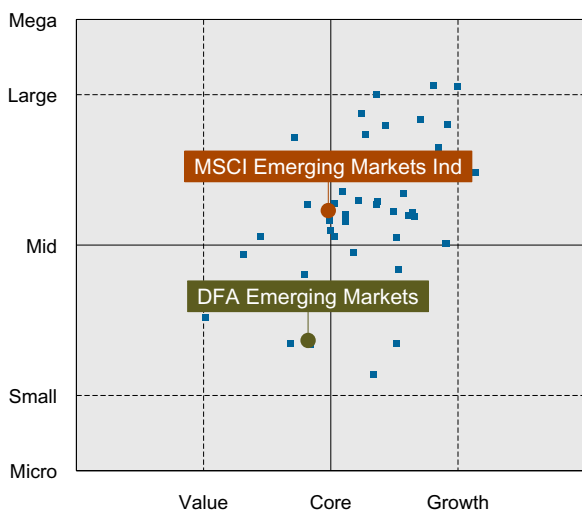
## Current Holdings Based Style Analysis

### DFA Emerging Markets

#### As of September 30, 2017

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

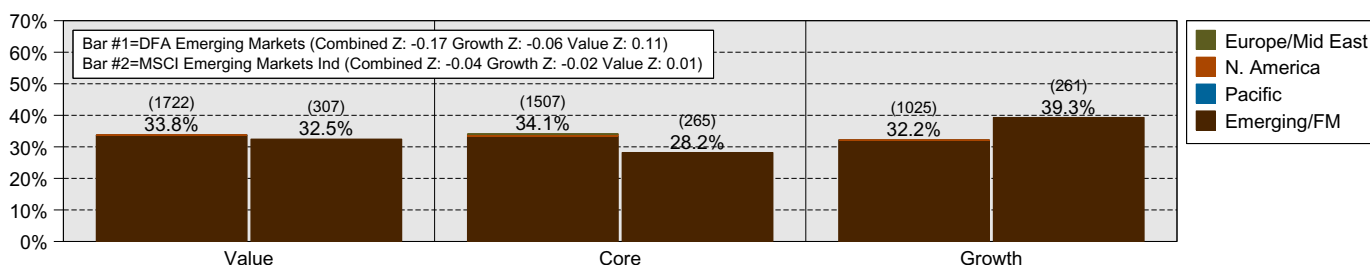
**Style Map vs Callan Emerging Equity MF Holdings as of September 30, 2017**



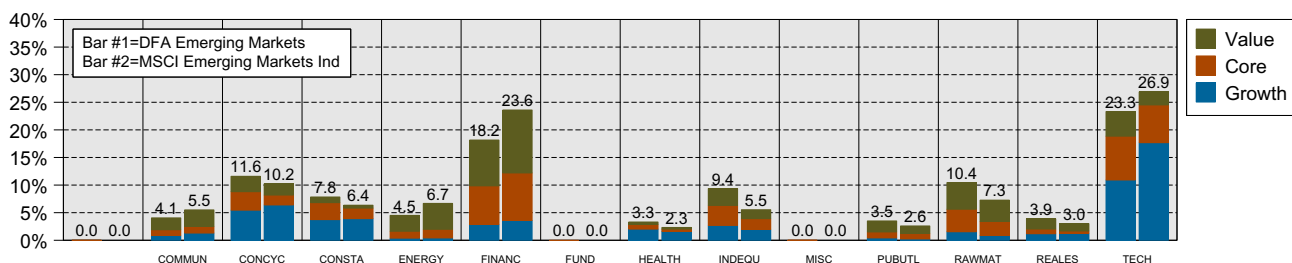
**Style Exposure Matrix Holdings as of September 30, 2017**

Europe/ Mid East	0.0% (0)	0.0% (1)	0.0% (0)	0.0% (1)
N. America	0.0% (3)	0.7% (13)	0.0% (1)	0.7% (17)
Pacific	0.0% (9)	0.0% (25)	0.0% (16)	0.1% (50)
Emerging/ FM	33.7% (1710)	33.3% (1468)	32.1% (1008)	99.1% (4186)
<b>Total</b>	<b>33.8% (1722)</b>	<b>34.1% (1507)</b>	<b>32.2% (1025)</b>	<b>100.0% (4254)</b>
	32.5% (307)	28.2% (265)	39.3% (261)	100.0% (833)
	Value	Core	Growth	Total

**Combined Z-Score Style Distribution Holdings as of September 30, 2017**



**Sector Weights Distribution Holdings as of September 30, 2017**



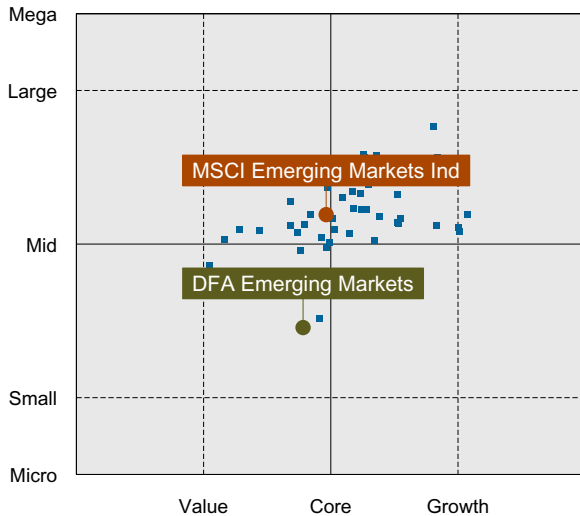
## Historical Holdings Based Style Analysis

### DFA Emerging Markets

#### For Five Years Ended September 30, 2017

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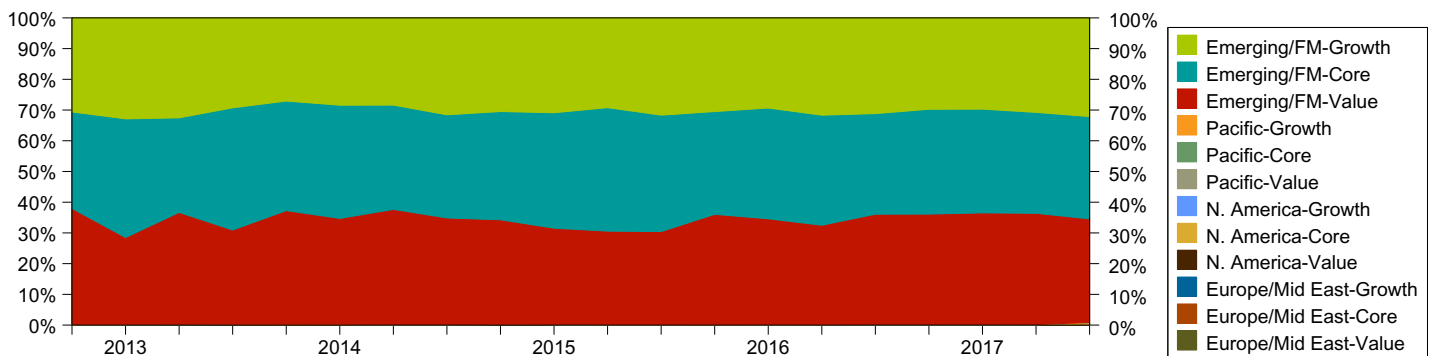
**Average Style Map vs Callan Emerging Equity MF Holdings for Five Years Ended September 30, 2017**



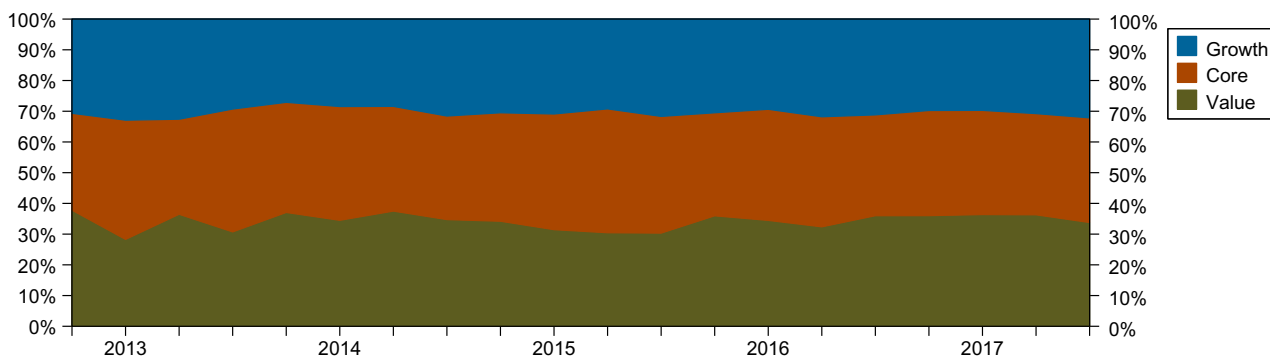
**Average Style Exposure Matrix Holdings for Five Years Ended September 30, 2017**

	Value	Core	Growth	Total
Europe/ Mid East	0.0% (1) 0.0% (0)	0.1% (2) 0.0% (0)	0.0% (0) 0.0% (0)	0.1% (3) 0.0% (0)
N. America	0.0% (1) 0.0% (0)	0.0% (2) 0.0% (0)	0.0% (0) 0.0% (0)	0.1% (3) 0.0% (0)
Pacific	0.0% (12) 0.0% (0)	0.1% (19) 0.0% (0)	0.0% (7) 0.0% (0)	0.1% (38) 0.0% (0)
Emerging/ FM	34.2% (1357) 32.1% (283)	35.2% (1452) 32.0% (253)	30.4% (863) 35.9% (282)	99.8% (3672) 100.0% (818)
<b>Total</b>	<b>34.2% (1371)</b> <b>32.1% (283)</b>	<b>35.3% (1475)</b> <b>32.0% (253)</b>	<b>30.4% (870)</b> <b>35.9% (282)</b>	<b>100.0% (3716)</b> <b>100.0% (818)</b>

**DFA Emerging Markets Historical Region/Style Exposures**



**DFA Emerging Markets Historical Style Only Exposures**



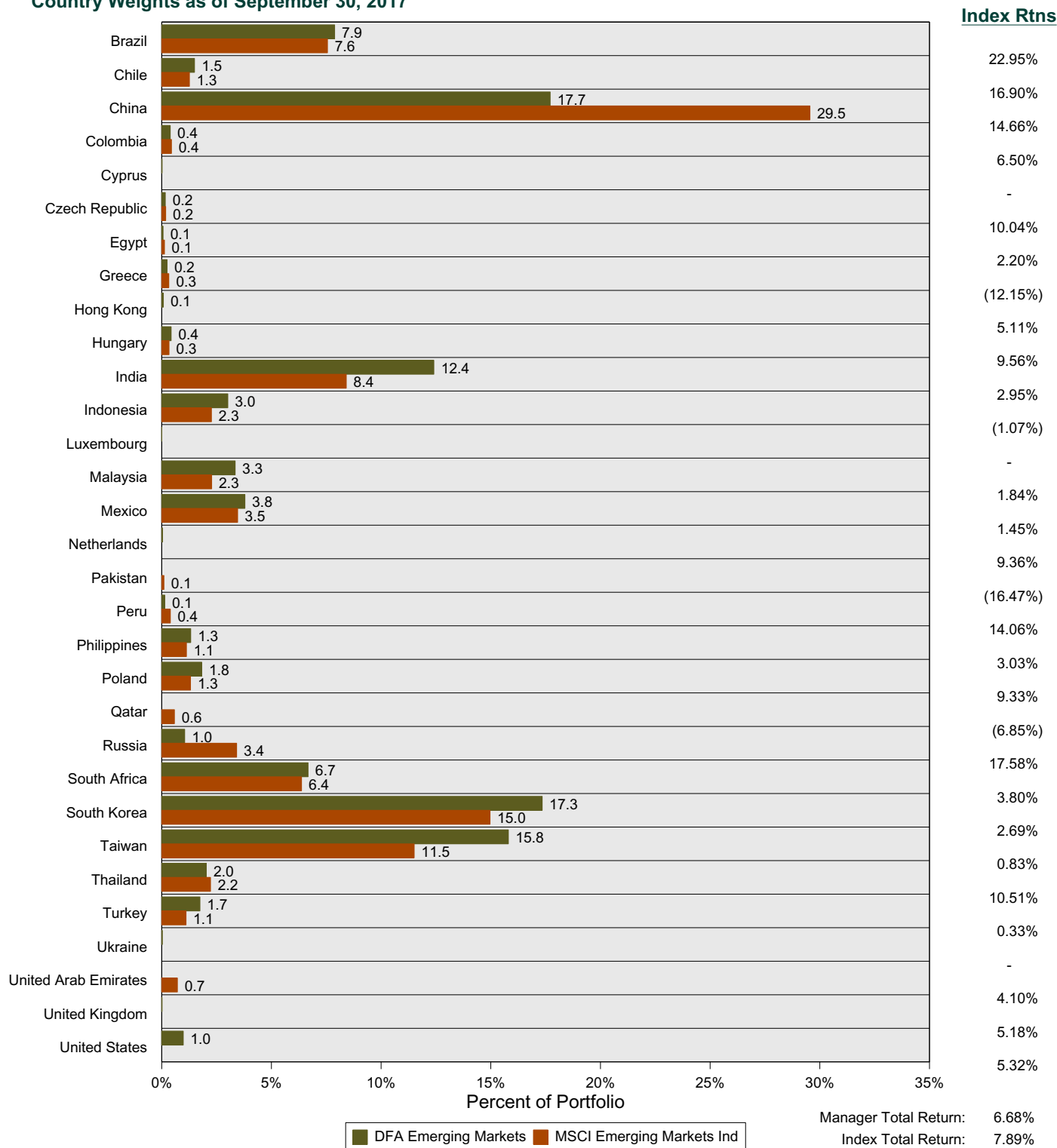
## Country Allocation

### DFA Emerging Markets VS MSCI Emerging Markets Index

#### Country Allocation

The chart below contrasts the portfolio's country allocation with that of the index as of September 30, 2017. This chart is useful because large deviations in country allocation relative to the index are often good predictors of tracking error in the subsequent quarter. To the extent that the portfolio allocation is similar to the index, the portfolio should experience more "index-like" performance. In order to illustrate the performance effect on the portfolio and index of these country allocations, the individual index country returns are also shown.

#### Country Weights as of September 30, 2017



## DFA Emerging Markets Top 10 Portfolio Holdings Characteristics as of September 30, 2017

### 10 Largest Holdings

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Samsung Electronics Co Ltd Ord	Information Technology	\$665,465	4.0%	8.07%	290.50	7.82	1.37%	31.88%
Tencent Holdings Limited Shs Par Hkd	Information Technology	\$295,273	1.8%	20.35%	408.85	36.14	0.18%	33.42%
Taiwan Semicond Manufac Co L Shs	Information Technology	\$193,121	1.2%	4.17%	185.13	15.10	3.23%	7.97%
Taiwan Semiconductor Mfg Co Ltd Spon	Information Technology	\$190,921	1.2%	7.41%	185.13	15.10	3.23%	7.97%
Sk Hynix Inc Shs	Information Technology	\$149,497	0.9%	50.00%	52.69	5.51	0.72%	54.09%
China Construction Bank Shs H	Financials	\$132,543	0.8%	7.04%	199.46	5.50	4.84%	8.06%
Hon Hai Precision Inds Ltd Ord	Information Technology	\$127,356	0.8%	(6.46)%	60.00	10.48	4.29%	7.05%
Alibaba Group Hldg Ltd Sponsored Ads	Information Technology	\$118,732	0.7%	22.58%	442.34	29.80	0.00%	32.14%
Vale Sa Shs	Materials	\$91,958	0.6%	15.11%	50.35	10.05	3.19%	12.20%
Industrial and Comm Bk of Cn Hkd Shs	Financials	\$90,767	0.6%	15.87%	64.45	5.94	4.56%	5.61%

### 10 Best Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
O-Ta Precision Industry	Consumer Discretionary	\$73	0.0%	165.37%	0.13	(20.00)	0.00%	-
Unipar Pnb	Materials	\$602	0.0%	157.48%	0.20	10.53	1.72%	-
Ipek Matbaacilik	Energy	\$864	0.0%	153.56%	0.45	-	0.00%	-
Heg	Industrials	\$810	0.0%	149.15%	0.57	32.70	0.32%	(2.41)%
Acme Electronics	Information Technology	\$64	0.0%	144.72%	0.15	(13.11)	0.00%	-
Magazine Luiza Sa	Consumer Discretionary	\$6,554	0.0%	142.92%	4.47	32.36	0.17%	77.57%
Koza Davetiye Imalat	Materials	\$1,956	0.0%	135.47%	0.77	-	0.00%	-
Kaisa Group Holdings	Real Estate	\$5,419	0.0%	135.02%	4.45	10.94	2.58%	31.89%
Carbon	Industrials	\$1,643	0.0%	126.44%	1.11	22.94	0.54%	(21.54)%
Phoenix New Media Ltd Sponsored Ads	Information Technology	\$106	0.0%	123.95%	0.42	50.78	0.00%	(11.53)%

### 10 Worst Performers

Stock	Sector	Ending Market Value	Percent of Portfolio	Qtrly Return	Market Capital	Price/Forecasted Earnings Ratio	Dividend Yield	Forecasted Growth in Earnings
Hangsong Hitech	Industrials	\$24	0.0%	(60.00)%	0.05	(12.30)	0.00%	-
Sin Cheon	Industrials	\$38	0.0%	(58.14)%	0.02	(0.65)	14.29%	-
Dong-A Pharmaceutical Co	Health Care	\$1,299	0.0%	(55.44)%	0.65	10.27	0.82%	(10.69)%
Aveng Ltd Shs	Industrials	\$462	0.0%	(51.90)%	0.09	5.68	0.00%	15.00%
Gajah Tunggal	Consumer Discretionary	\$787	0.0%	(50.00)%	0.18	-	0.73%	(10.69)%
Pacific Utama	Consumer Discretionary	\$6,906	0.0%	(50.00)%	2.01	12.55	5.22%	7.03%
Dooray Air Metal	Consumer Discretionary	\$111	0.0%	(50.00)%	0.06	(5.65)	0.00%	-
Namo Intercative	Industrials	\$143	0.0%	(50.00)%	0.05	14.34	3.22%	-
Sepoong	Materials	\$261	0.0%	(50.00)%	0.04	(1.15)	0.00%	34.93%
Kthitel Co	Information Technology	\$216	0.0%	(50.00)%	0.17	25.92	0.00%	57.55%



## Metropolitan West Period Ended September 30, 2017

### Investment Philosophy

Metropolitan West Asset Management (MWAM) attempts to add value by limiting duration, managing the yield curve, rotating among bond market sectors and using proprietary quantitative valuation techniques.

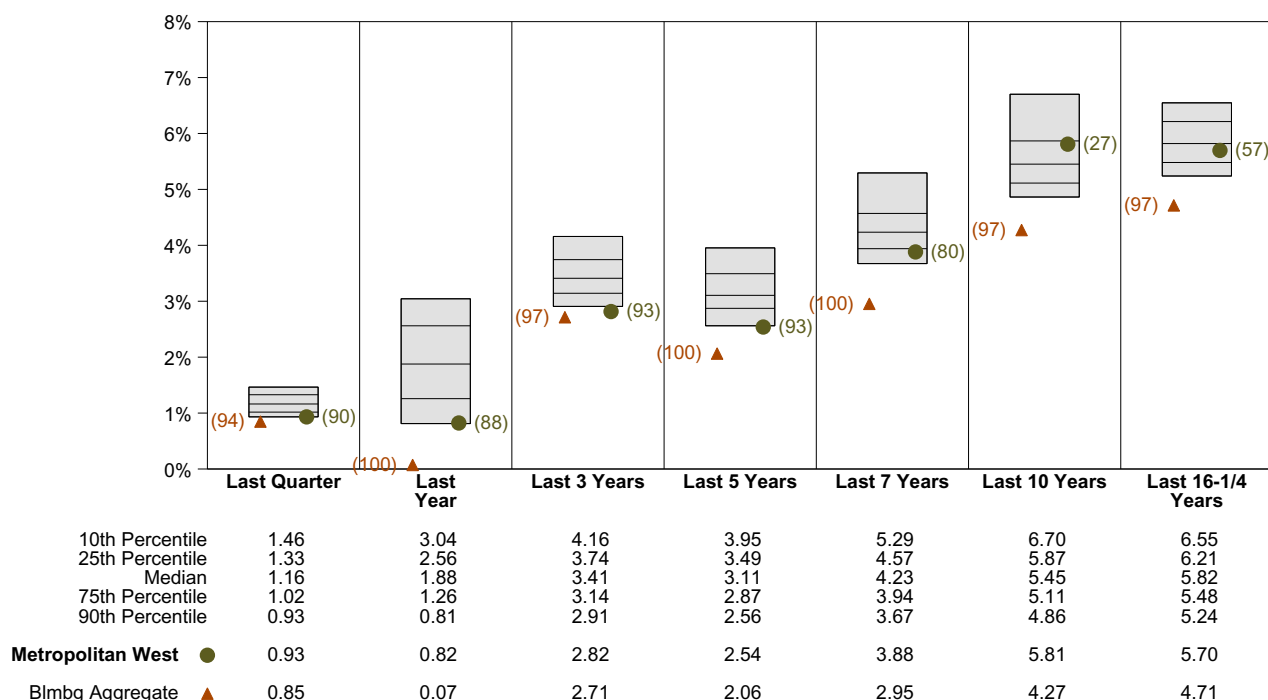
### Quarterly Summary and Highlights

- Metropolitan West's portfolio posted a 0.93% return for the quarter placing it in the 90 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 88 percentile for the last year.
- Metropolitan West's portfolio outperformed the Blmbg Aggregate by 0.08% for the quarter and outperformed the Blmbg Aggregate for the year by 0.75%.

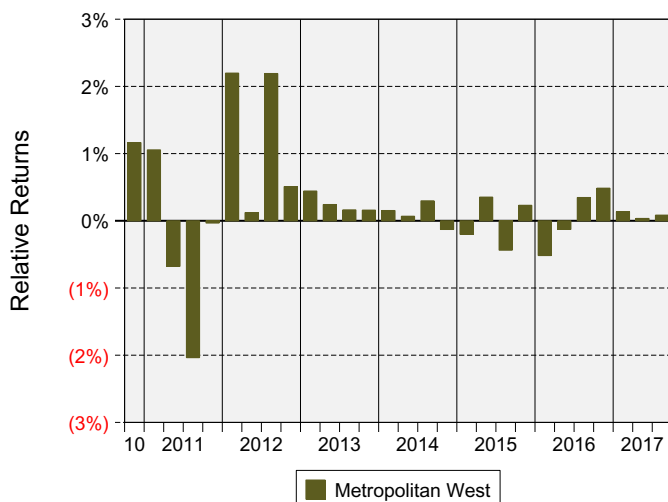
### Quarterly Asset Growth

Beginning Market Value	\$88,495,034
Net New Investment	\$0
Investment Gains/(Losses)	\$824,534
Ending Market Value	\$89,319,569

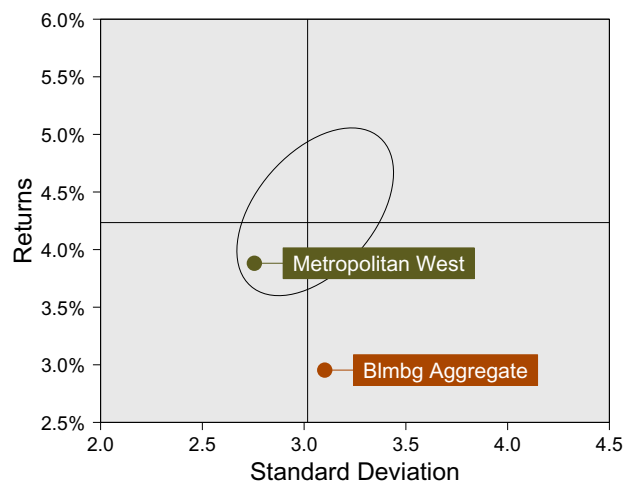
### Performance vs Callan Core Plus Fixed Income (Gross)



### Relative Return vs Blmbg Aggregate



### Callan Core Plus Fixed Income (Gross) Annualized Seven Year Risk vs Return

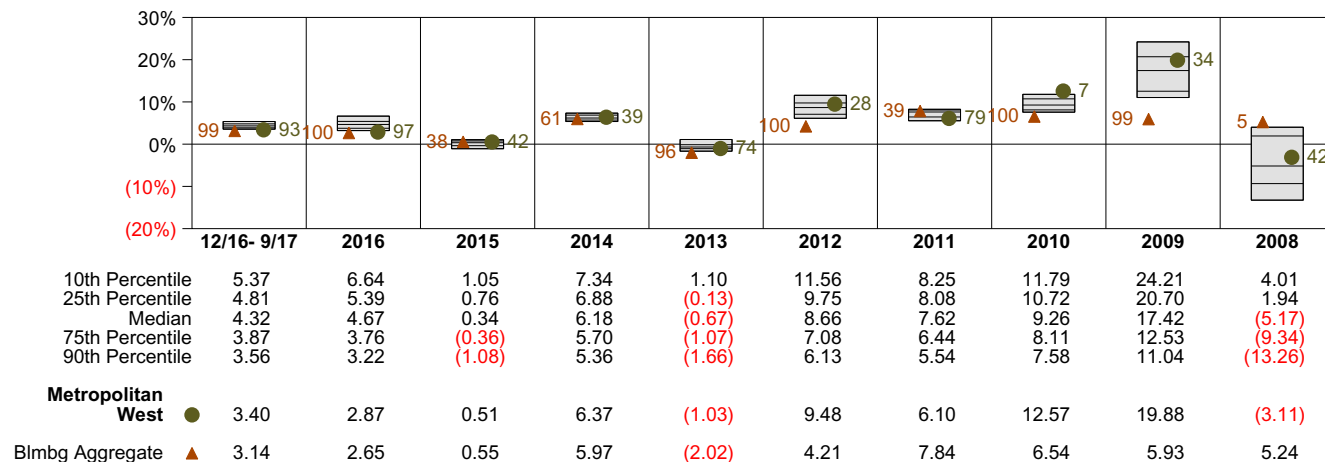


## Metropolitan West Return Analysis Summary

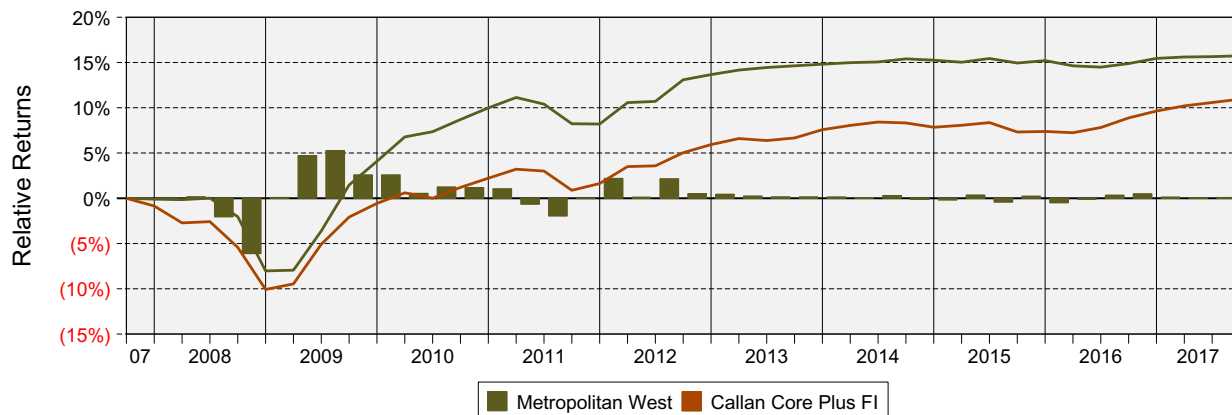
### Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

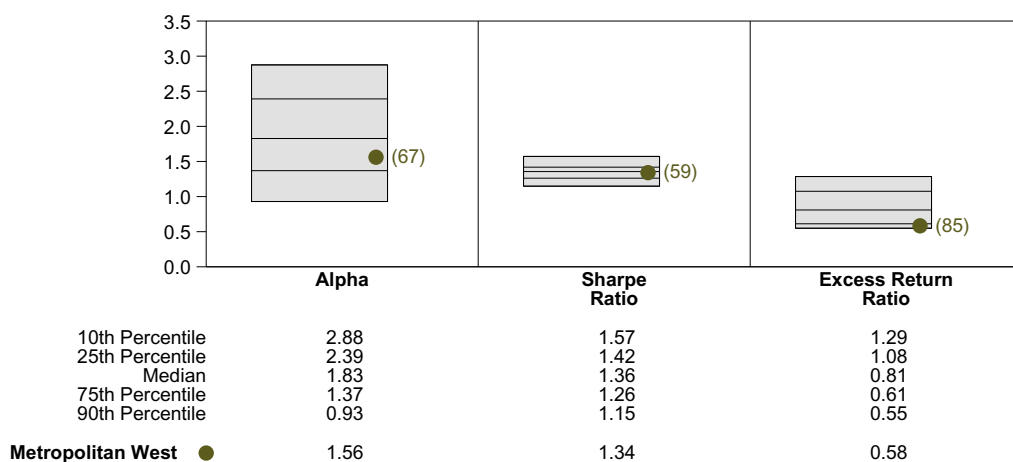
### Performance vs Callan Core Plus Fixed Income (Gross)



### Cumulative and Quarterly Relative Return vs Bmbg Aggregate



### Risk Adjusted Return Measures vs Bmbg Aggregate Rankings Against Callan Core Plus Fixed Income (Gross) Seven Years Ended September 30, 2017

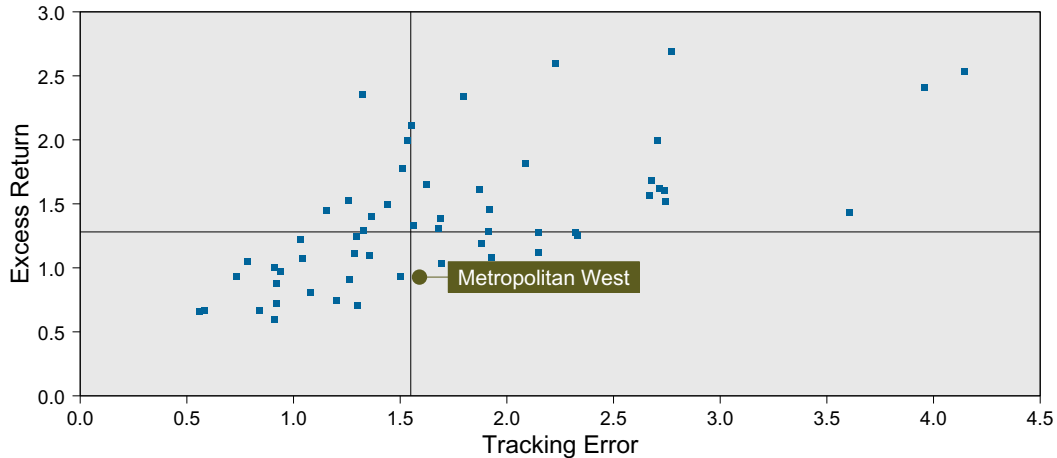


## Metropolitan West Risk Analysis Summary

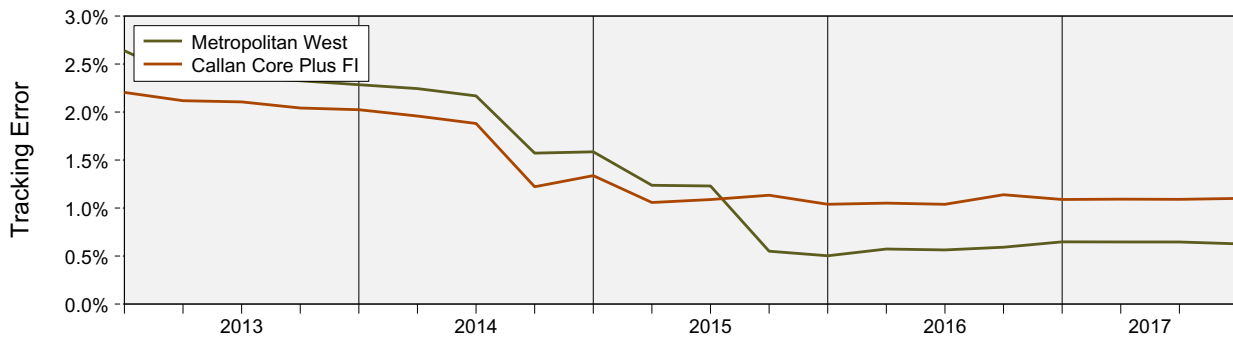
### Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

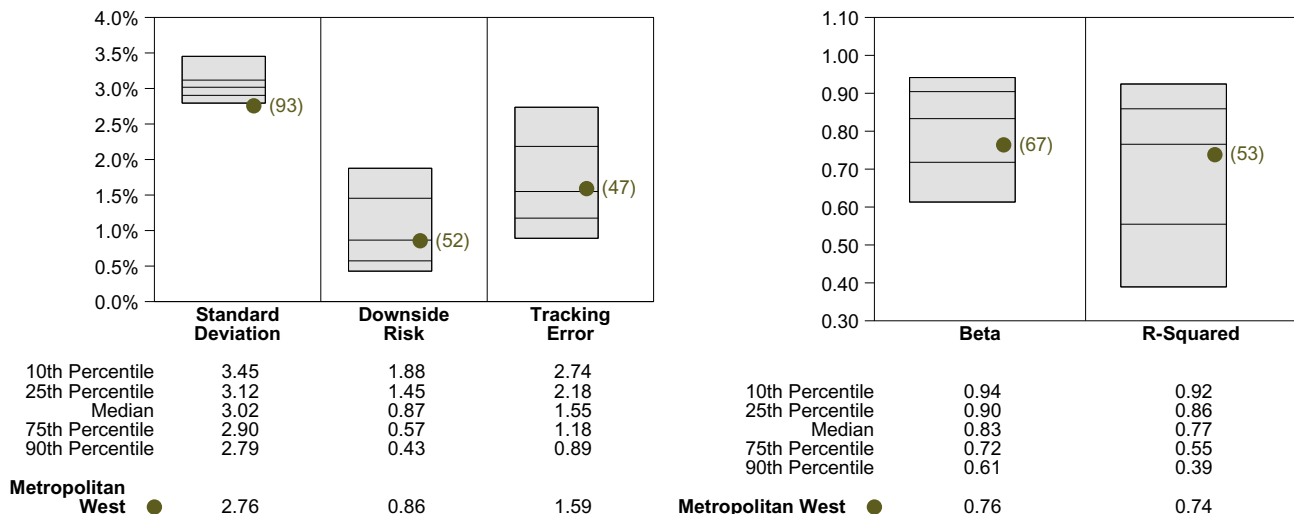
### Risk Analysis vs Callan Core Plus Fixed Income (Gross) Seven Years Ended September 30, 2017



### Rolling 12 Quarter Tracking Error vs Bloomberg Barclays Aggregate



### Risk Statistics Rankings vs Bloomberg Barclays Aggregate Rankings Against Callan Core Plus Fixed Income (Gross) Seven Years Ended September 30, 2017



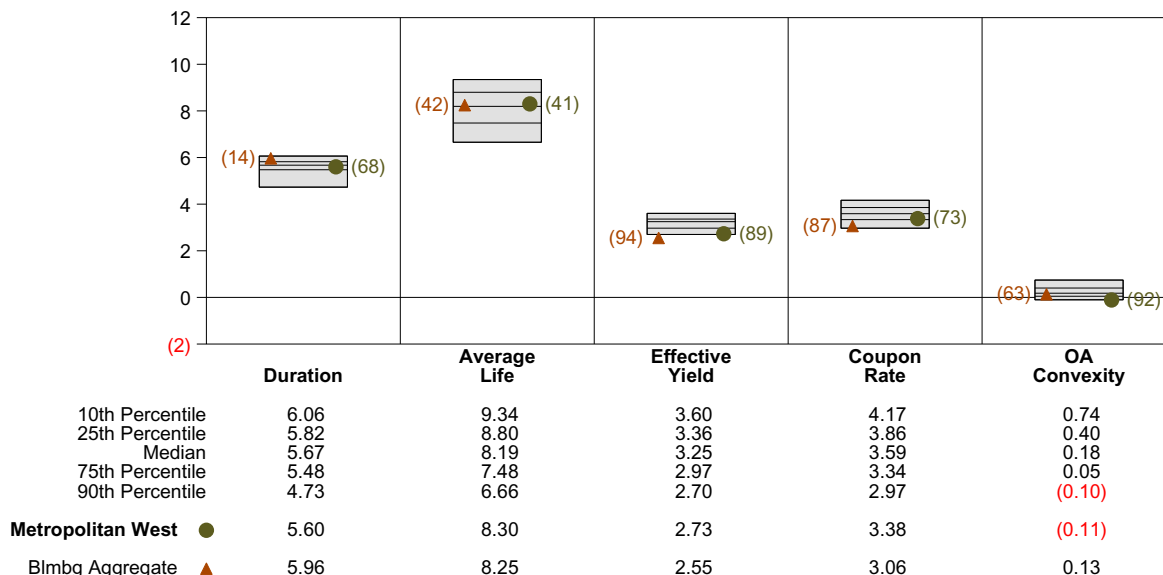


## Metropolitan West Bond Characteristics Analysis Summary

### Portfolio Characteristics

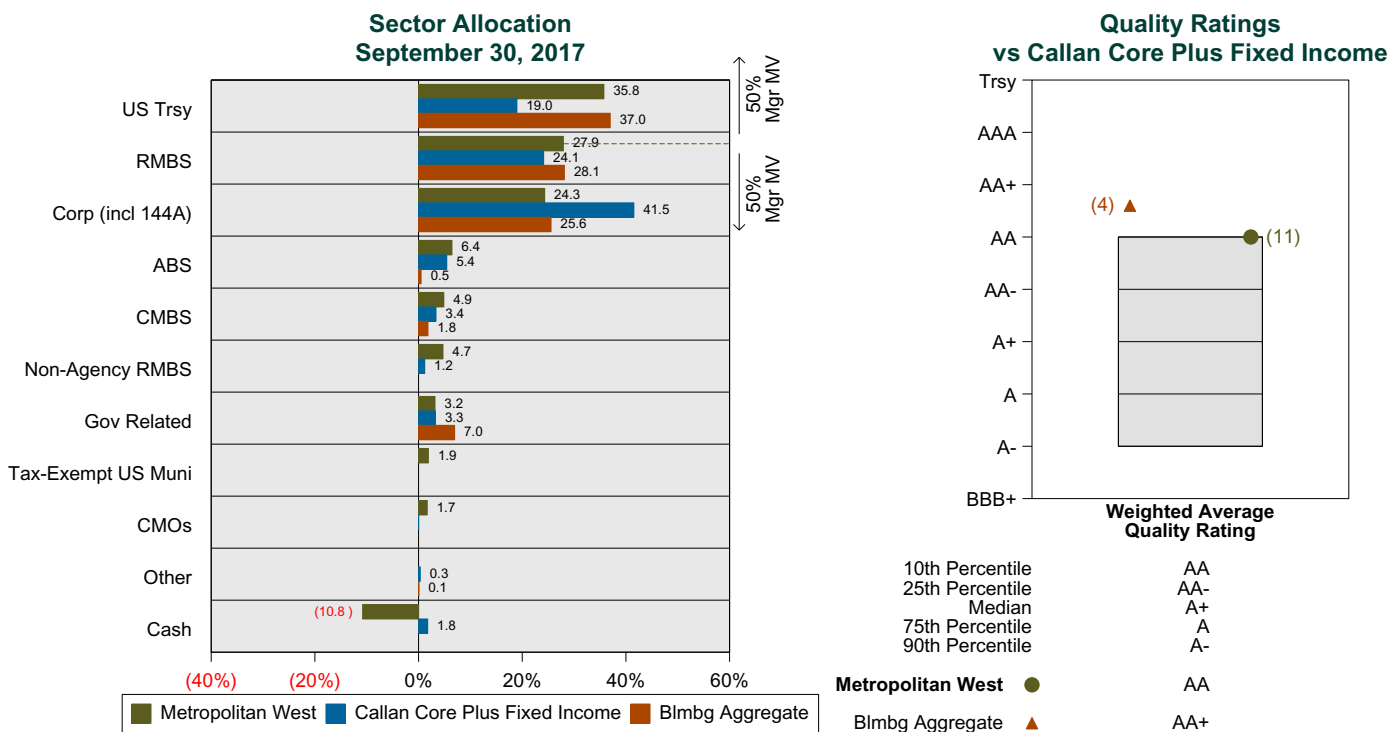
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

### Fixed Income Portfolio Characteristics Rankings Against Callan Core Plus Fixed Income as of September 30, 2017



### Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

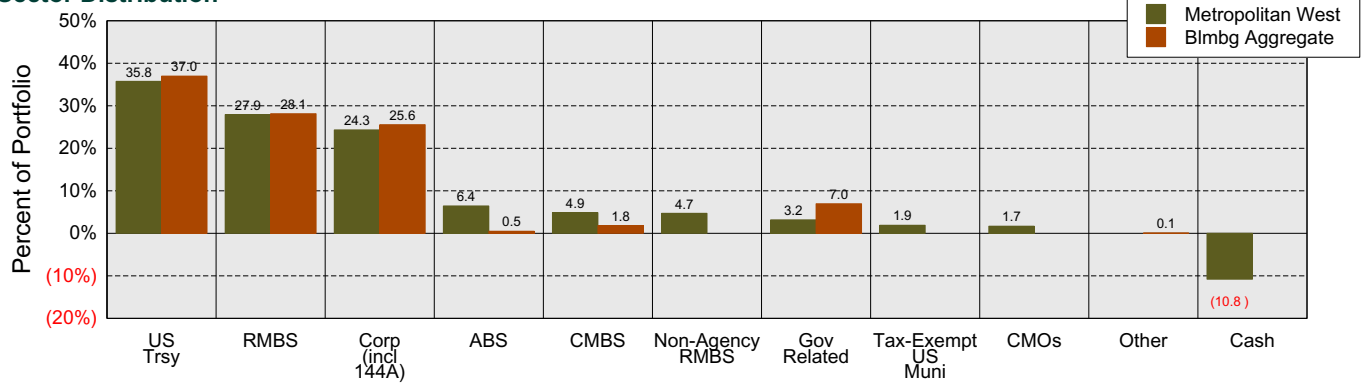


# Metropolitan West Portfolio Characteristics Summary As of September 30, 2017

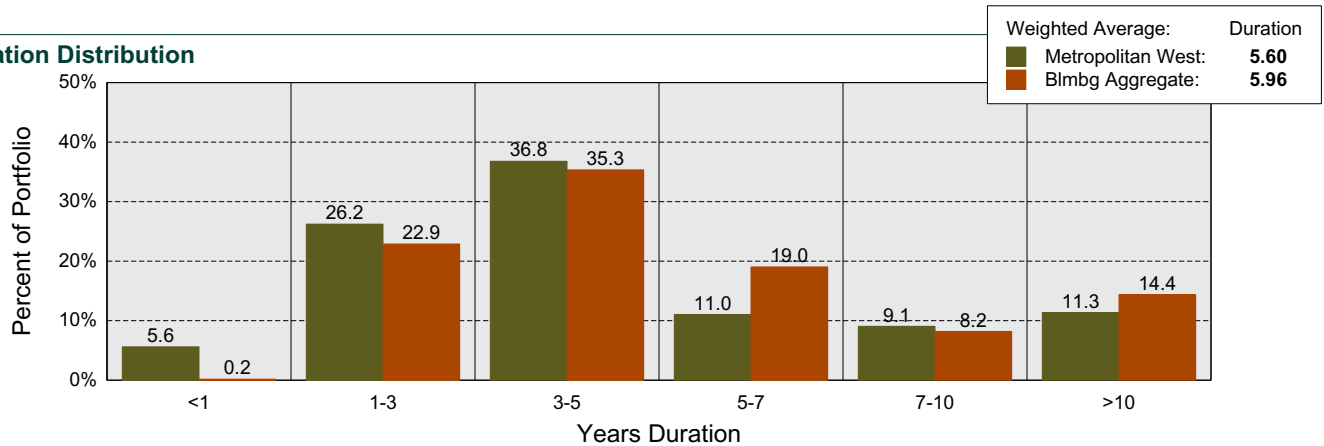
## Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

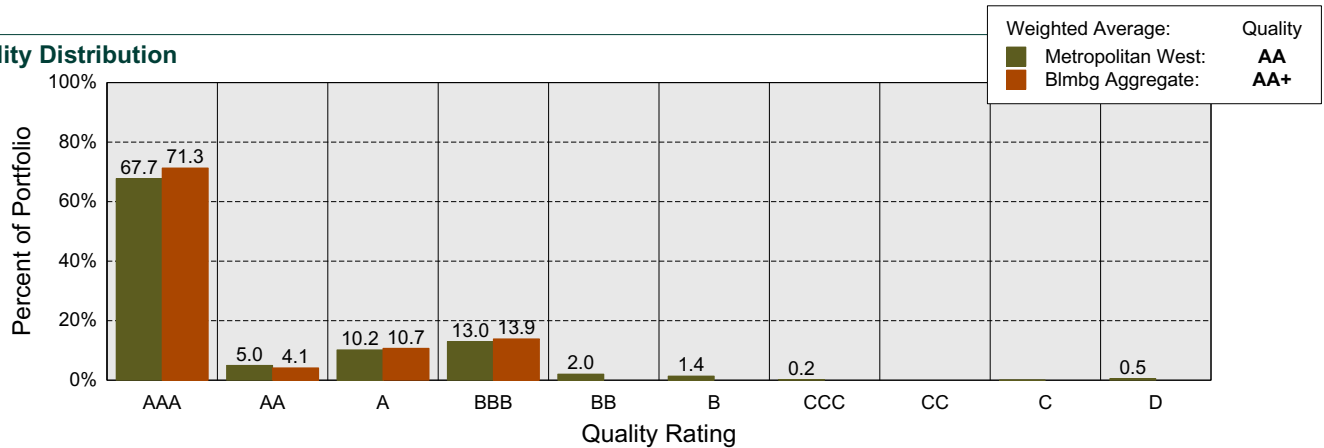
### Sector Distribution



### Duration Distribution



### Quality Distribution





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## Risk/Reward Statistics

The risk statistics used in this report examine performance characteristics of a manager or a portfolio relative to a benchmark (market indicator) which assumes to represent overall movements in the asset class being considered. The main unit of analysis is the excess return, which is the portfolio return minus the return on a risk free asset (3 month T-Bill).

**R-Squared** indicates the extent to which the variability of the portfolio returns are explained by market action. It can also be thought of as measuring the diversification relative to the appropriate benchmark. An r-squared value of .75 indicates that 75% of the fluctuation in a portfolio return is explained by market action. An r-squared of 1.0 indicates that a portfolio's returns are entirely related to the market and it is not influenced by other factors. An r-squared of zero indicates that no relationship exists between the portfolio's return and the market.

**Relative Standard Deviation** is a simple measure of a manager's risk (volatility) relative to a benchmark. It is calculated by dividing the manager's standard deviation of returns by the benchmark's standard deviation of returns. A relative standard deviation of 1.20, for example, means the manager has exhibited 20% more risk than the benchmark over that time period. A ratio of .80 would imply 20% less risk. This ratio is especially useful when analyzing the risk of investment grade fixed-income products where actual historical durations are not available. By using this relative risk measure over rolling time periods one can illustrate the "implied" historical duration patterns of the portfolio versus the benchmark.

**Residual Portfolio Risk** is the unsystematic risk of a fund, the portion of the total risk unique to the fund (manager) itself and not related to the overall market. This reflects the "bets" which the manager places in that particular asset market. These bets may reflect emphasis in particular sectors, maturities (for bonds), or other issue specific factors which the manager considers a good investment opportunity. Diversification of the portfolio will reduce or eliminate the residual risk of that portfolio.

**Rising and Declining Periods** refer to the sub-asset class cycles vis-a-vis the broader asset class. This is determined by evaluating the cumulative relative sub-asset class index performance to that of the broader asset class index. For example, to determine the Growth Style cycle, the S&P 500 Growth Index (sub-asset class) performance is compared to that of the S&P 500 Index (broader asset class).

**Sharpe Ratio** is a commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio's risk level (standard deviation). The result is a measure of return gained per unit of risk taken.

**Sortino Ratio** is a downside risk-adjusted measure of value-added. It measures excess return over a benchmark divided by downside risk. The natural appeal is that it identifies value-added per unit of truly bad risk. The danger of interpretation, however, lies in these two areas: (1) the statistical significance of the denominator, and (2) its reliance on the persistence of skewness in return distributions.

**Standard Deviation** is a statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (ie. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

**Total Portfolio Risk** is a measure of the volatility of the quarterly excess returns of an asset. Total risk is composed of two measures of risk: market (non-diversifiable or systematic) risk and residual (diversifiable or unsystematic) risk. The purpose of portfolio diversification is to reduce the residual risk of the portfolio.

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## Risk/Reward Statistics

**Tracking Error** is a statistical measure of a portfolio's risk relative to an index. It reflects the standard deviation of a portfolio's individual quarterly or monthly returns from the index's returns. Typically, the lower the Tracking Error, the more "index-like" the portfolio.

**Treynor Ratio** represents the portfolio's average excess return over a specified period divided by the beta relative to its benchmark over that same period. This measure reflects the reward over the risk-free rate relative to the systematic risk assumed.

Note: Alpha, Total Risk, and Residual Risk are annualized.



## Research and Educational Programs

The Callan Institute provides both research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit [www.callan.com/library](http://www.callan.com/library) to see all of our publications, and [www.callan.com/blog](http://www.callan.com/blog) to view our blog "Perspectives." For more information contact Anna West at 415.974.5060 / [institute@callan.com](mailto:institute@callan.com).

## New Research from Callan's Experts



**The Private Debt Pie: Do You Want a Slice? Do You Need One?** | As institutional investors consider the merits and risks of constructing private debt allocations in their portfolios, Callan's Jay Kloepfer, the director of Capital Markets Research; and Jay Nayak, a consultant in our Private Equity Research

group, prepared a set of answers to some key questions about private debt.

**Callan 2017 Nuclear Decommissioning Funding Study** | This study, done annually, offers key insights into the status of nuclear decommissioning funding in the U.S. The 2017 study covers 54 utilities with an ownership interest in the 99 operating nuclear reactors and 11 of the non-operating reactors in the U.S. It found that the health of nuclear decommissioning funding has remained fairly stable, hovering near 70% over the past decade.



**Callan 2017 Private Equity Survey**  
Callan conducted a survey of institutional private equity investors. We focused on deployment models, patterns of investment and commitment activities

over time, governance and oversight, staffing and resources, and responsibilities for program administration functions. Our Survey included 69 institutional investors with private equity programs totaling \$103.3 billion. Our Survey found that an array of administration issues affect how institutional private equity portfolios are constructed, monitored, and managed. We found these factors led to less than ideal choices for implementing the programs, often including sub-optimal use of the discretionary consultant/fund-of-funds model for certain private equity programs.

**The Triple Play: Adding Timberland, Farmland, and Infrastructure to Portfolios** | Timberland, farmland, and infrastructure offer diversification, stable income, and inflation protection for institutional investor portfolios. Callan believes a combination of these three real assets offers distinct advantages.

**Reaching for Higher Ground: The Evolution of TDFs** | Target date funds (TDFs) are an improvement over former common defaults, but they need to evolve. The solutions include using uncorrelated asset classes, in-plan annuities, "dynamic" qualified default investment alternatives, or guaranteed income products.

## Periodicals

**Private Markets Trends, Summer 2017** | Gary Robertson discusses the surge of money into the private markets as high prices persist.

**Hedge Fund Monitor, 3rd Quarter 2017** | Jim McKee discusses four major secular trends that are on a predictable course to increasingly weigh on markets over the longer term: demographics, fiscal policy, monetary policy, and market valuations.

**Market Pulse Flipbook, 2nd Quarter 2017** | A quarterly market reference guide covering investment and fund sponsor trends in the U.S. economy, U.S. and non-U.S. equities and fixed income, alternatives, and defined contribution plans.

**Capital Market Review, 2nd Quarter 2017** | A quarterly newsletter providing insights on the economy and recent performance in equity, fixed income, alternatives, international, real estate, and other capital markets.

**Monthly Periodic Table of Investment Returns** | This update reflects the latest results for major indices.

## Events

Miss out on a Callan conference or workshop? Event summaries and speakers' presentations are available on our website: [www.callan.com/library/](http://www.callan.com/library/)

Mark your calendars for our upcoming **Regional Workshops**, October 24 in New York and October 26 in Chicago, where we'll cover highlights from our soon-to-be published *Investment Management Fee Survey* and other aspects of fees.

Callan's **National Conference** will be held January 29–31, 2018, at the Palace Hotel in San Francisco.

**For more information about events, please contact Barb Gerraty: 415.274.3093 / [gerraty@callan.com](mailto:gerraty@callan.com)**

## The Center for Investment Training Educational Sessions

The Center for Investment Training, better known as the "Callan College," provides a foundation of knowledge for industry professionals who are involved in the investment decision-making process. It was founded in 1994 to provide clients and non-clients alike with basic- to intermediate-level instruction. Our next sessions are:

### Introduction to Investments

*San Francisco, April 10-11, 2018*

*San Francisco, July 24-25, 2018*

*Chicago, October 2-3, 2018*

This program familiarizes fund sponsor trustees, staff, and asset management advisers with basic investment theory, terminology, and practices. It lasts one-and-a-half days and is designed for individuals who have less than two years of experience with asset-management oversight and/or support responsibilities. Tuition for the Introductory "Callan College" session is \$2,350 per person. Tuition includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

### Customized Sessions

The "Callan College" is equipped to customize a curriculum to meet the training and educational needs of a specific organization. These tailored sessions range from basic to advanced and can take place anywhere—even at your office.

**Learn more at [www.callan.com/events/callan-college-intro](http://www.callan.com/events/callan-college-intro) or contact Kathleen Cunnie: 415.274.3029 / [cunnie@callan.com](mailto:cunnie@callan.com)**

## Education: By the Numbers

**525**

Attendees (on average) of the Institute's annual National Conference

**50+**

Unique pieces of research the Institute generates each year

**3,500**

Total attendees of the "Callan College" since 1994

**1980**

Year the Callan Institute was founded



"We think the best way to learn something is to teach it. Entrusting client education to our consultants and specialists ensures that they have a total command of their subject matter. This is one reason why education and research have been cornerstones of our firm for more than 40 years."

Ron Peyton, Executive Chairman





## List of Callan's Investment Manager Clients

Confidential – For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor and disclose potential conflicts on an on-going basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance Department.

Manager Name
1607 Capital Partners, LLC
Aberdeen Asset Management PLC
Acadian Asset Management LLC
AEGON USA Investment Management
AEW Capital Management
Affiliated Managers Group, Inc.
Alcentra
AllianceBernstein
Allianz Global Investors
Allianz Life Insurance Company of North America
American Century Investments
AMP Capital Investors Limited
Amundi Smith Breeden LLC
Angelo, Gordon & Co.
Apollo Global Management
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Artisan Holdings
Atlanta Capital Management Co., LLC
Aviva Investors Americas
AXA Investment Managers
Baillie Gifford Overseas Limited
Baird Advisors
Bank of America
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BlackRock
BMO Global Asset Management
BNP Paribas Investment Partners
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC

Manager Name
Brigade Capital Management, LP
Brown Brothers Harriman & Company
Cambiar Investors, LLC
Capital Group
CastleArk Management, LLC
Causeway Capital Management
CBRE Global Investors
Chartwell Investment Partners
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Management Investment Advisers, LLC
Columbus Circle Investors
Conning Asset Management Company
Corbin Capital Partners, L.P.
Cornerstone Capital Management
Cramer Rosenthal McGlynn, LLC
Credit Suisse Asset Management
Crestline Investors, Inc.
D.E. Shaw Investment Management, L.L.C.
DePrince, Race & Zollo, Inc.
Deutsche Asset Management
Diamond Hill Capital Management, Inc.
Dimensional Fund Advisors LP
Doubleline
Duff & Phelps Investment Mgmt. Co.
Eagle Asset Management, Inc.
EARNEST Partners, LLC
Eaton Vance Management
Epoch Investment Partners, Inc.
Fayez Sarofim & Company
Federated Investors
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Eagle Investment Management, LLC
First Hawaiian Bank Wealth Management Division
Fisher Investments

Manager Name
Franklin Templeton
Franklin Templeton Institutional
Fred Alger Management, Inc.
Fuller & Thaler Asset Management, Inc.
GAM (USA) Inc.
GMO
Goldman Sachs Asset Management
Goodwin Capital Advisers
Guggenheim Investments
Guggenheim Partners Asset Management
GW&K Investment Management
Harbor Capital Group Trust
Hartford Funds
Hartford Investment Management Co.
Heitman LLC
Henderson Global Investors
Holland Capital Management
Hotchkis & Wiley Capital Management, LLC
HSBC Global Asset Management
Income Research + Management, Inc.
Insight Investment Management Limited
INTECH Investment Management, LLC
Invesco
Investec Asset Management
Ivy Investments
Janus Capital Management, LLC
Jarislowsky Fraser Global Investment Management
Jensen Investment Management
Jobs Peak Advisors
Johnson Institutional Management
J.P. Morgan Asset Management
J.P. Morgan Chase & Company
Kayne Anderson Capital Advisors LP
KeyCorp
Lazard Asset Management
Legal & General Investment Management America
Lincoln National Corporation
LM Capital Group, LLC
LMCG Investments, LLC
Longview Partners
Loomis, Sayles & Company, L.P.
Lord Abbett & Company
Los Angeles Capital Management
LSV Asset Management
Mackay Shields LLC
Macquarie Investment Management (formerly Delaware Investments)
Man Investments Inc.
Manulife Asset Management
McKinley Capital Management, LLC
MFS Investment Management
MidFirst Bank
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
Mountain Lake Investment Management LLC
MUFG Union Bank, N.A.
Neuberger Berman
Newton Investment Management (fka Newton Capital Mgmt)
Nicholas Investment Partners

Manager Name
Nikko Asset Management Co., Ltd.
Northern Trust Asset Management
Nuveen Investments, Inc.
OFI Global Asset Management
Old Mutual Asset Management
O'Shaughnessy Asset Management, LLC
Pacific Investment Management Company
Parametric Portfolio Associates
Peregrine Capital Management, Inc.
PGIM
PGIM Fixed Income
PGIM Real Estate
PineBridge Investments
Pioneer Investments
PNC Capital Advisors, LLC
PPM America
Principal Global Investors
Private Advisors, LLC
Putnam Investments, LLC
QMA (Quantitative Management Associates)
RBC Global Asset Management
Regions Financial Corporation
RidgeWorth Capital Management, Inc.
Rockefeller & Co., Inc.
Rockpoint Group
Rothschild Asset Management, Inc.
Russell Investments
Santander Global Facilities
Schroder Investment Management North America Inc.
Smith, Graham & Co. Investment Advisors, L.P.
Smith Group Asset Management
Standard Life Investments Limited
Standish
State Street Global Advisors
Stone Harbor Investment Partners, L.P.
T. Rowe Price Associates, Inc.
Taplin, Canida & Habacht
Teachers Insurance & Annuity Association of America
The Boston Company Asset Management, LLC
The Guardian Life Insurance Company of America
The Hartford
The Lionstone Group
The London Company
The TCW Group, Inc.
Thompson, Siegel & Walmsley LLC
Thornburg Investment Management, Inc.
Tri-Star Trust Bank
UBS Asset Management
Van Eck Global
Versus Capital Group
Victory Capital Management Inc.
Vontobel Asset Management, Inc.
Voya Financial
Voya Investment Management (fka ING)
WCM Investment Management
WEDGE Capital Management
Wellington Management Company, LLP
Wells Capital Management
Western Asset Management Company
William Blair & Company



## Account Compliance Summary

Alerts:	0
Warnings:	0
Passes:	14

A5XB SACRT - ATLANTA CAPITAL MGMT

Production Date: 09/29/2017

Securities + Cash		25,687,230.87	Base Currency	USD	Net Assets	25,667,266
Rule Name			Limit Type	Limit Value	Result	Result Status
<u>144A and Private Placem</u>						
1	Private Placements are prohibited. (143653)		Maximum	0.00%	0.00 %	Pass
<u>Asset Measures</u>						
2	AssetMeasure: AssetMeasure_Funds_PREFERRED_Denominator (34662)				25,687,230.87 Value	Pass
<u>Asset Type</u>						
3	International equity securities which trade on U.S.-based exchanges, including American Depository Receipts (ADRs), shall not exceed 5% of the portfolio at cost (143658)		Maximum	5.00%	0.00 %	Pass
4	Investments in commodities are prohibited (143655)		Maximum	0.00%	0.00 %	Pass
5	Margin Securities are prohibited. (143651)		Maximum	0.00%	0.00 %	Pass
6	Ownership of shares/debt issued limit 5% ex null (143652)		Maximum	5.00%	0.04 %	Pass
7	The Fund may not enter into short sales. (143654)		Maximum	0.00%	0.00 %	Pass
8	The Fund may not hold any Options. (143657)		Maximum	0.00%	0.00 %	Pass
9	The Fund may not hold more than 5% of the shares outstanding of any domestic equity security (143659)		Maximum	5.00%	0.04 %	Pass
<u>Cash</u>						
10	No more than 10% of the Fund in cash and cash equivalents. (143656)		Maximum	10.00%	3.09 %	Pass
<u>Exchange</u>						
11	Flag any non-US exchange traded futures (143670)		Maximum	0.00%	0.00 %	Pass
<u>Industry</u>						
12	Industry Sector GICS - Max 25% at cost (143660)		Maximum	25.00%	6.70 %	Pass
13	The Fund shall not invested in any security issued by a company in the Tobacco Sub-Industry as defined by GICS (143650)		Maximum	0.00%	0.00 %	Pass
<u>Issuer</u>						
14	Investments in a single domestic equity issuer shall not exceed 5% at cost (143661)		Maximum	5.00%	2.52 %	Pass



## Account Compliance Summary

Alerts:	0
Warnings:	0
Passes:	8

A5XD SACRT - METWEST

Production Date: 09/29/2017

Securities + Cash	110,151,889.88	Base Currency	USD	Net Assets	89,320,652
Rule Name	Limit Type	Limit Value	Result	Result Status	
<u>144A and Private Placem</u>					
1 The Fund is not permitted to hold any Private Placements excluding 144a (143666)	Maximum	0.00%	0.00 %	Pass	
<u>Asset Measures</u>					
2 AssetMeasure: AssetMeasure_Funds_Preferred_Denominator (34662)			110,151,889.88 Value	Pass	
<u>Asset Type</u>					
3 A5XD: Flag all prohibited security types (143665)	Maximum	0.00%	0.00 %	Pass	
4 Asset-Backed Commercial Paper - Minimum Quality of A2/P2 (157603)	Maximum	0	0 Num Bkts	Pass	
<u>Credit Quality</u>					
5 Minimum Quality must be at lesst 80% Baa or above (157604)	Minimum	80.00%	87.24 %	Pass	
6 No Commercial Paper rated < A2/P2 at time of purchase (143662)	Maximum	0.00%	0.00 %	Pass	
7 The Weighted Average Credit Rating of the Fund must be A or better (143663)	Minimum	20	23.03 Rank	Pass	
<u>Industry</u>					
8 The Fund shall not invested in any security issued by a company in the Tobacco Sub-Industry as defined by GICS (143650)	Maximum	0.00%	0.00 %	Pass	



## Account Compliance Summary

Alerts:	0
Warnings:	0
Passes:	14

A5Z8 SACRT - ROBECO

Production Date: 09/29/2017

Securities + Cash	47,197,063.05	Base Currency	USD	Net Assets	47,053,726
Rule Name	Limit Type	Limit Value	Result	Result Status	
<u>144A and Private Placem</u>					
1 Private Placements are prohibited. (143653)	Maximum	0.00%	0.00 %	Pass	
<u>Asset Measures</u>					
2 AssetMeasure: AssetMeasure_Funds_PREFERRED_Denominator (34662)			47,197,063.05 Value	Pass	
<u>Asset Type</u>					
3 International equity securities which trade on U.S.-based exchanges, including American Depositary Receipts (ADRs), shall not exceed 5% of the portfolio at cost (143658)	Maximum	5.00%	2.11 %	Pass	
4 Investments in commodities are prohibited (143655)	Maximum	0.00%	0.00 %	Pass	
5 Margin Securities are prohibited. (143651)	Maximum	0.00%	0.00 %	Pass	
6 Ownership of shares/debt issued limit 5% ex null (143652)	Maximum	5.00%	0.01 %	Pass	
7 The Fund may not enter into short sales. (143654)	Maximum	0.00%	0.00 %	Pass	
8 The Fund may not hold any Options. (143657)	Maximum	0.00%	0.00 %	Pass	
9 The Fund may not hold more than 5% of the shares outstanding of any domestic equity security (143659)	Maximum	5.00%	0.01 %	Pass	
<u>Cash</u>					
10 No more than 10% of the Fund in cash and cash equivalents. (143656)	Maximum	10.00%	1.54 %	Pass	
<u>Exchange</u>					
11 Flag any non-US exchange traded futures (143670)	Maximum	0.00%	0.00 %	Pass	
<u>Industry</u>					
12 Industry Sector GICS - Max 25% at cost (143660)	Maximum	25.00%	13.03 %	Pass	
13 The Fund shall not invested in any security issued by a company in the Tobacco Sub-Industry as defined by GICS (143650)	Maximum	0.00%	0.00 %	Pass	
<u>Issuer</u>					
14 Investments in a single domestic equity issuer shall not exceed 5% at cost (143661)	Maximum	5.00%	3.11 %	Pass	



## Account Compliance Summary

Alerts:	
Warnings:	
Passes:	

A5Z8 SACRT - ROBECO

Production Date: 09/29/2017

Securities + Cash	47,197,063.05	Base Currency	USD	Net Assets	47,053,726
Rule Name	Limit Type	Limit Value	Result	Result Status	

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