



PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS



PERIOD ENDING: JUNE 30, 2018

Investment Performance Review for

Tulare County Employees' Retirement Association

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Investment Landscape

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**PERSPECTIVES
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SUCCESS**

3RD QUARTER 2018
Investment Landscape

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2nd quarter summary

THE ECONOMIC CLIMATE

- U.S. economic data generally surprised to the upside in Q2, leading to a strong quarterly GDP growth estimate of 3.4%. Economic growth in the second and third quarters will likely see the biggest boost from fiscal stimulus. The U.S. is currently outshining other developed economies. [p. 7, 18](#)
- The synchronized global growth story of the past year has shifted somewhat as economies have displayed more disparate performance. The change has not been too dramatic – growth continues to be positive, but at a more moderate pace. [p. 17](#)

PORTFOLIO IMPACTS

- Emerging market equity and local debt delivered losses of 8.0% and 10.4% in Q2 (MSCI Emerging Markets Index, JPM GBI-EM Global Diversified). Much of the losses were due to currency movement. We believe emerging market assets offer attractive value – recent movements appear to have been driven by a shift in short-term sentiment and currency depreciation. [p. 27, 34](#)
- The U.S. implemented a first round of tariffs on Chinese imports on July 6th, which impacted \$34 billion worth of goods. So far, only a small portion of the discussed tariffs have been enacted. [p. 8, 9](#)

THE INVESTMENT CLIMATE

- Strong corporate earnings growth is expected again in the second quarter. According to FactSet, the bottom-up analyst forecast for the S&P 500 is 20.0% YoY. [p. 31](#)
- Short-term U.S. Treasury yields rose, resulting in a flatter yield curve. The spread between the 10- and 2-year yield was 27 bps, a new cycle low. [p. 23](#)
- Fears were raised over Italy's role in the European Union after a coalition of the anti-establishment Five Star Movement and League Party formed a new government. Italian sovereign bond yields spiked severely during the move, but have since moderated somewhat. [p. 19](#)

ASSET ALLOCATION ISSUES

- Following the February selloff equity markets have been range bound. As corporate earnings rise further equity valuations have been pushed down to more attractive levels closer to the long-term historical average. [p. 31, 37](#)
- While we believe trade negotiations and geopolitical uncertainty are potential causes for concern, the backdrop of positive global growth and strong corporate earnings may allow for healthy risk-asset performance. [p. 18, 31](#)

A neutral to mild risk overweight may be warranted in today's environment

What drove the market in Q2?

“Trade tariff worries keep stocks under pressure”

TOTAL PROPOSED GOODS SUBJECT TO U.S. TARIFFS (\$BILLIONS)

Jan	Feb	Mar	Apr	May	Jun
10	10	106	206	481	881

Article Source: Financial Times, June 21st, 2018

“Economic growth in U.S. leaves world behind”

U.S. Q2 GDP CONSENSUS EXPECTATION (%)

Jan	Feb	Mar	Apr	May	Jun
2.6	2.7	3.0	3.1	3.1	3.4

Article Source: WSJ, June 14th, 2018

“Rising dollar sparks tumult in emerging markets”

MSCI EMERGING MARKETS MONTHLY CURRENCY IMPACT

Jan	Feb	Mar	Apr	May	Jun
1.6%	-0.7%	0.0%	-1.6%	-1.3%	-1.7%

Article Source: WSJ, May 21st, 2018

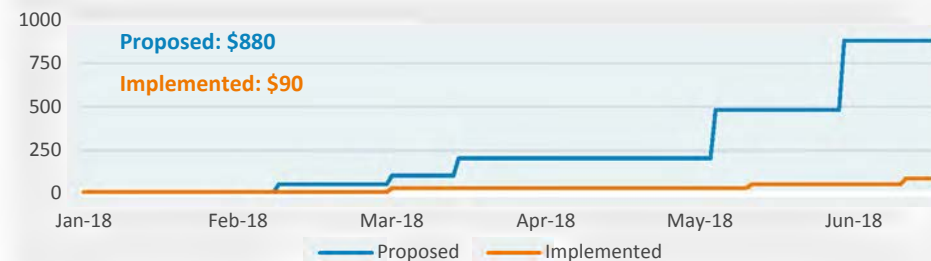
“Investors are getting worried about an inverted yield curve”

U.S. 10- MINUS 2-YEAR YIELD SPREAD (BPS)

Jan	Feb	Mar	Apr	May	Jun
56	61	47	46	42	33

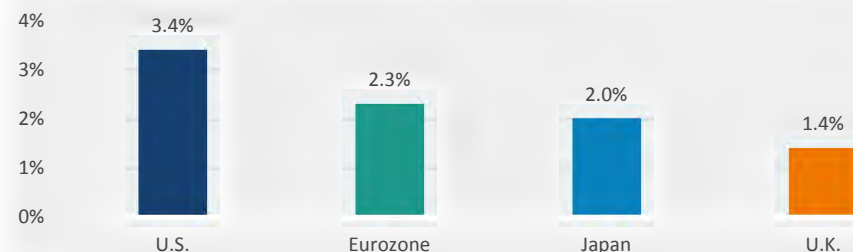
Article Source: Bloomberg, April 18th, 2018

PROPOSED VS. IMPLEMENTED U.S. TARIFFS (\$BILLIONS)



Source: Verus, as of 7/6/18

Q2 GDP EXPECTATIONS



Source: Bloomberg, as of 7/11/18

MSCI EMERGING MARKETS USD VS. LOCAL



Source: Bloomberg, as of 6/30/18

Economic environment

U.S. economics summary

- GDP growth was 2.8% year-over-year in the first quarter (2.0% quarterly annualized rate). The slightly slower pace of expansion was influenced by more conservative consumer spending than in previous quarters.
- The rate of inflation picked up moderately throughout the quarter. Core CPI rose 2.3% over the past year, reaching the upper end of its range during the current cycle. The year-over-year rate was impacted by a low base effect – the 3-month annualized core inflation rate was only 1.7%.
- Job gains during the quarter were strong, despite traditional employment measures indicating a tight labor market. Additions to nonfarm payrolls averaged 211,000 per month and the U-3 unemployment rate fell slightly from 4.1% to 4.0%.
- The broadest measure of labor market health, the ratio of employed individuals to the total population, indicates there may still be room for further improvement. More narrow indicators, such as the U-3 unemployment rate, may be overstating labor market tightness.
- The back and forth on trade between the U.S. and much of the rest of the world intensified. The White House has threatened to enact tariffs on up to \$550 billion of Chinese goods over unfair trade practices and intellectual property theft. To this point, tariffs have only been implemented on around \$40 billion of Chinese goods.
- The Fed raised interest rates for a second time this year in June to a target rate of 1.8% to 2.0%. Two more rate hikes are expected by the end of the year based on the Fed dot plot.

	Most Recent	12 Months Prior
GDP (YoY)	2.8% 3/31/18	2.0% 3/31/17
Inflation (CPI YoY, Core)	2.3% 6/30/18	1.7% 6/30/17
Expected Inflation (5yr-5yr forward)	2.2% 6/30/18	1.8% 6/30/17
Fed Funds Target Range	1.75 – 2.00% 6/30/18	1.00 – 1.25% 6/30/17
10 Year Rate	2.9% 6/30/18	2.3% 6/30/17
U-3 Unemployment	4.0% 6/30/18	4.3% 6/30/17
U-6 Unemployment	7.8% 6/30/18	8.5% 6/30/17

GDP growth

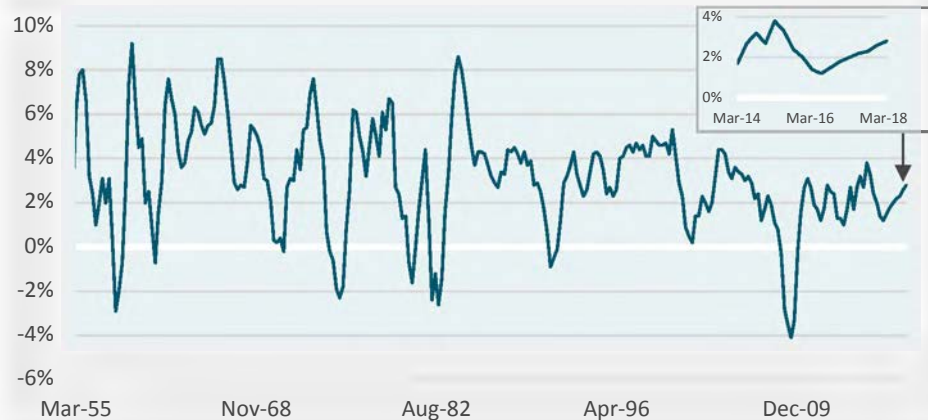
Real GDP growth rose 2.8% from the previous year in the first quarter (2.0% quarterly annualized rate). After a strong fourth quarter, consumers were more conservative with their purchases. Consumer spending contributed only 0.6% to the first quarter growth rate, compared to a 2.8% contribution in the previous quarter. Corporate capital investment was the biggest contributor to growth at 1.2%.

Strong growth is expected throughout the rest of the year as the benefits of fiscal stimulus begin to flow through to the economy. According to the Bloomberg consensus estimate,

real GDP growth is expected to be 3.4% in the second quarter. The big question is whether the economic benefits from fiscal stimulus are a one-off or whether they will have a more lasting impact on the economy that will help counter the headwind from monetary tightening.

While much of the tax cut windfall has been returned to shareholders via share buybacks there has been a meaningful pick up in corporate fixed investment to more normal levels, which may help sustain growth in the coming quarters.

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 3/31/18

U.S. GDP COMPONENTS



Source: Bloomberg, annualized quarterly rate, as of 3/31/18

Global trade

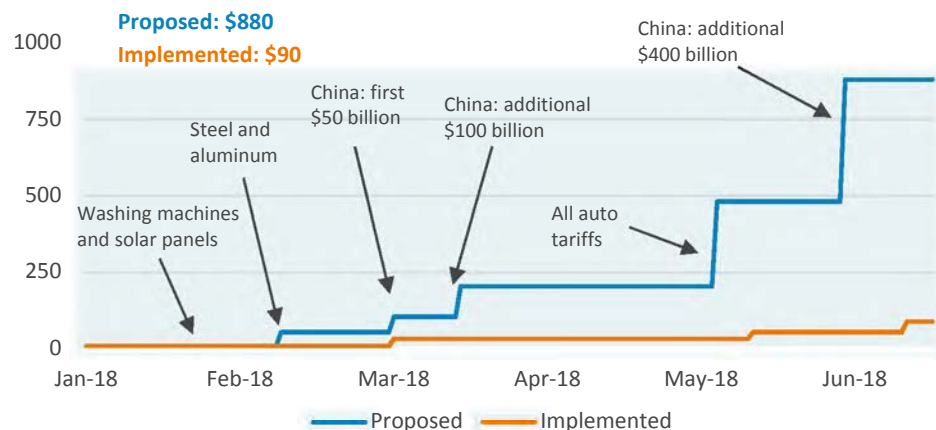
The war of words over trade between the U.S. and much of the rest of the world intensified in recent months, particularly with China. A first round of 10% tariffs on \$34 billion of Chinese goods was implemented on July 6th.

Thus far, there has been a large discrepancy between tariffs that have been proposed and tariffs that have been implemented. The U.S. has only enacted tariffs on \$90 billion of global imports. In comparison, the White House has proposed placing tariffs on a total of \$880 billion of imported goods. It is important to remember that tariffs are an avoidable tax on corporations conducting business in the U.S. Assuming a 10%

tariff rate on all proposed goods would result in a maximum tax of \$88 billion, a relatively small amount when thinking about the U.S. economy as a whole.

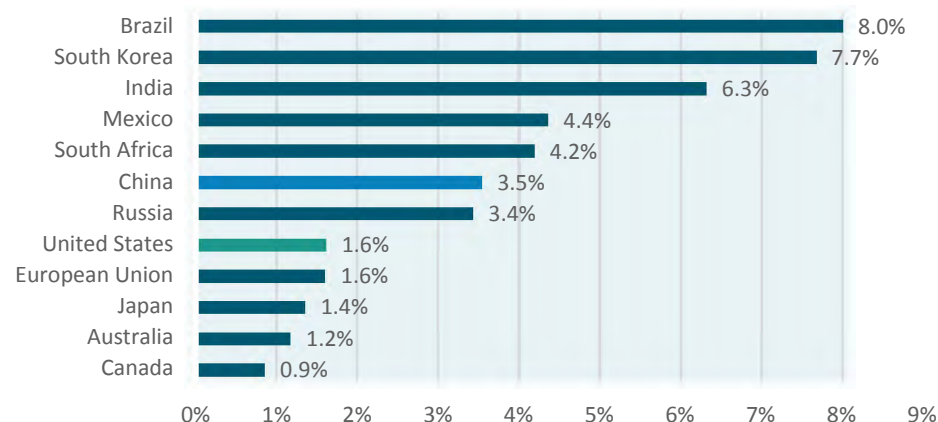
Tariffs in place so far are likely to have a minimal impact on the global economy. We believe that financial markets may be more sensitive to an escalation in the trade conflict than the actual economic impact. Much of the discussion on trade has ignored the fact that the U.S. has upheld less protectionist trade policies than many of its trading partners. While the trade conflict creates potential market downside risks, it also creates potential benefits if the end result is freer trade.

PROPOSED VS. IMPLEMENTED U.S. TARIFFS (\$BILLIONS)



Source: Verus, as of 7/6/18

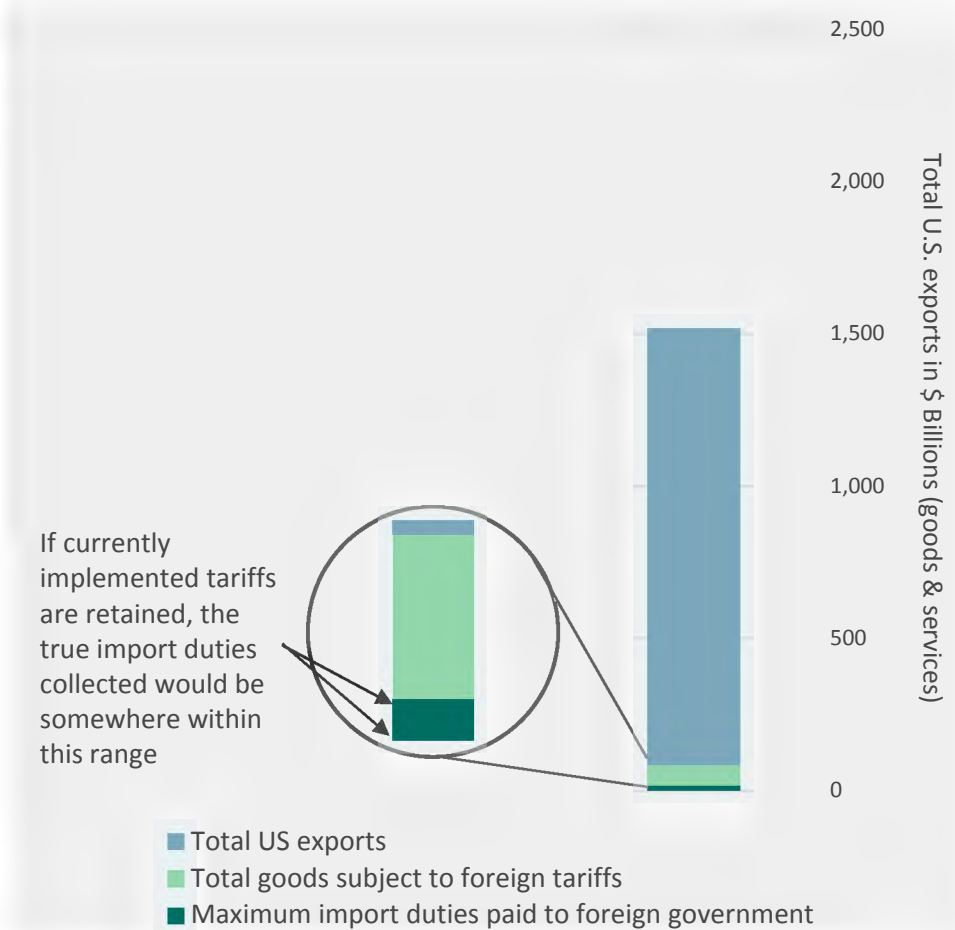
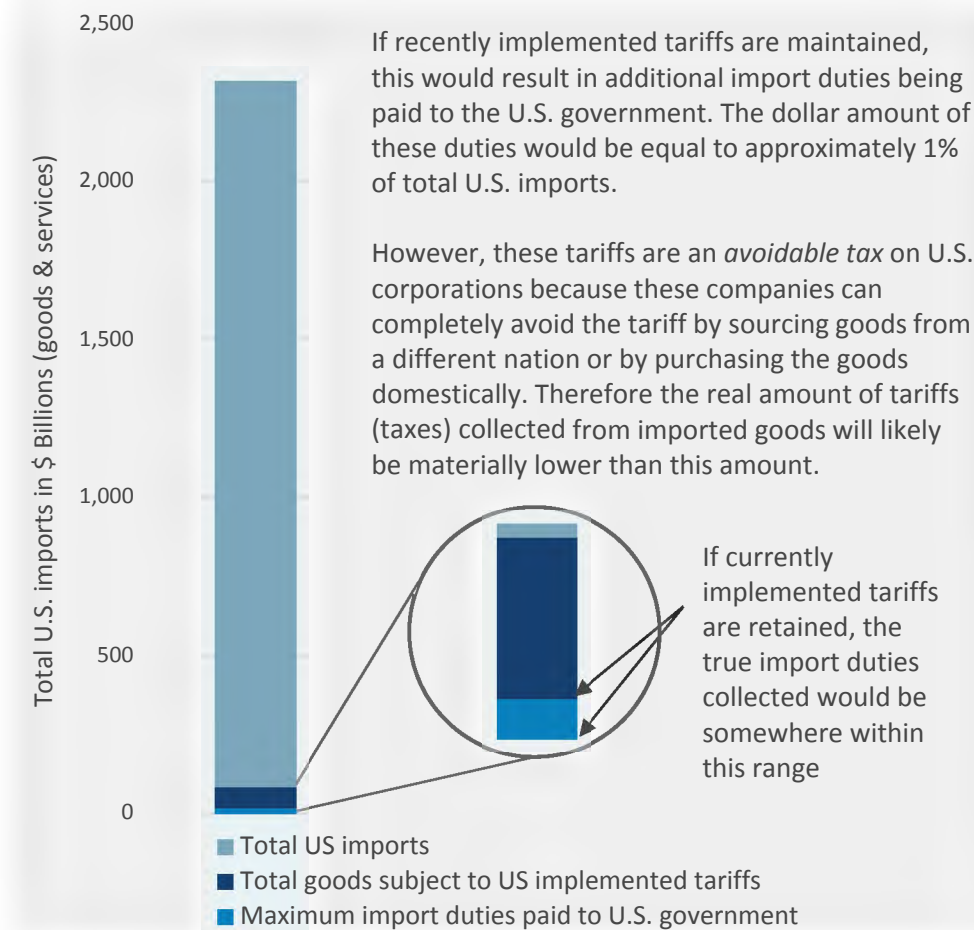
AVERAGE TARIFF RATE



Source: WTO, 2016

Putting tariffs into perspective

Tariff duties are better thought of as an avoidable tax. The impact of recently enacted tariffs is small, especially once substitution effects are accounted for.



Source: U.S. Census Bureau, Verus

Analysis conservatively assumes a 25% tariff rate for an estimated \$90 billion of tariffs on both imports and exports, both goods and services are included

Inflation

The year-over-year core CPI inflation rate was 2.3% in June, up from 2.1% three months prior. The increase in the yearly rate slightly overstates the size of the move because it was impacted by a low base effect – the annualized 3-month core inflation rate was only 1.7%.

While investors' concerns over inflation have bubbled up occasionally throughout the year, we have yet to see a material increase in price levels. Consumer price inflation

has been held back by a lack of wage growth as well as structural factors such as globalization and automation which have weighed down the prices of goods.

The Fed's response to inflation data is potentially more important to investors than actual changes in inflation, barring an unforeseen shock to the upside. To this point, the central bank appears to be tolerant of inflation slightly higher than the stated 2% target.

Core inflation remained modest

U.S. CPI (YOY)



Source: FRED, as of 5/31/18

INFLATION BY PRODUCT TYPE (YOY)



Source: Bloomberg, as of 5/31/18

INFLATION EXPECTATIONS



Source: Bloomberg, as of 6/30/18

Labor market

Conditions in the U.S. labor market tightened further in Q2 as unemployment moved from 4.1% to 4.0%. The unemployment rate that includes discouraged and part time workers fell from 8.0% to 7.8%. Despite these headline readings, we believe there may be considerable slack in the U.S. labor force which is not captured in traditional unemployment measures. This suggests further labor market gains in the U.S. expansion may be reflected in higher participation rates rather than solely through a decline in the unemployment rate.

Perhaps the greatest question mark in today's labor market is the degree to which long-term unemployed workers decide to resume their job search. This decision to return to work may be influenced by greater job prospects that come hand-in-hand with a strong economy, or may be influenced purely by necessity (many Americans are not adequately prepared for retirement).

Average hourly earnings growth ticked up to 2.7%, continuing a mild positive trend since the bottom of the U.S. recession.

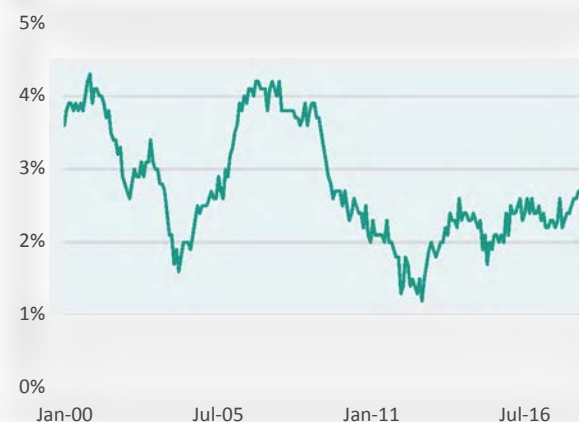
Traditional unemployment metrics may understate labor market slack

UNEMPLOYMENT RATE



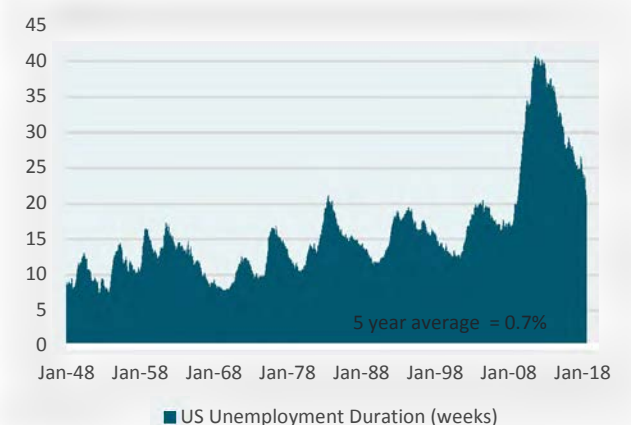
Source: FRED, as of 6/30/18

AVERAGE HOURLY EARNINGS (YOY)



Source: Bloomberg, as 5/31/18

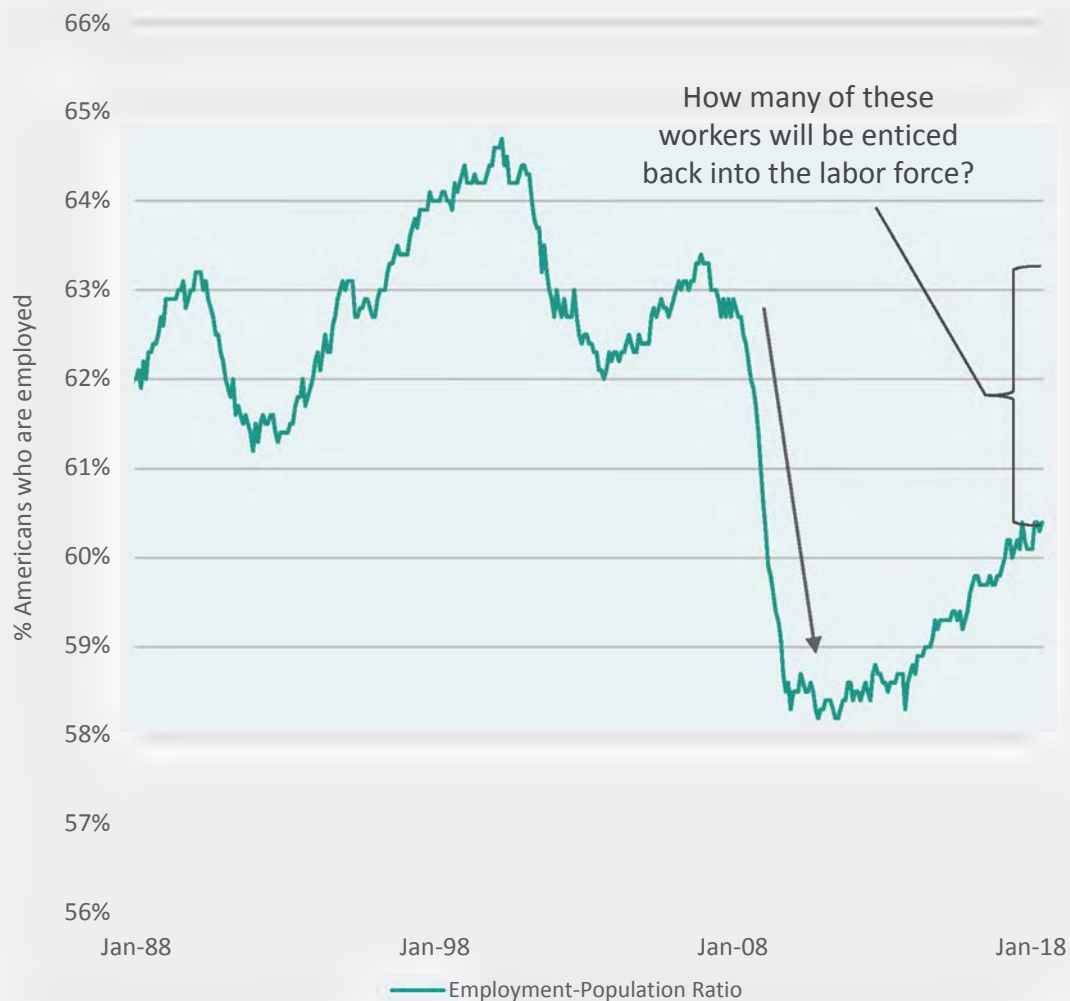
UNEMPLOYMENT DURATION



Source: FRED, as of 6/30/18

How tight is the job market?

- According to the most frequently touted measures of unemployment, the U.S. job market is at the strongest level seen in nearly 50 years. But looking at unemployment through a different lens – the number of Americans employed – paints a very different picture. A significant portion of America remains unemployed relative to 10 years ago.
- During past U.S. economic downturns, between 2% and 3% of Americans lost their jobs, though most or all of those jobs were recovered throughout the subsequent economic recovery. In comparison, 5% of Americans exited the workforce during the latest recession, and less than half of these lost jobs have been regained.
- Some of this shortfall has been fueled by demographic shifts, and some by workers giving up and permanently leaving the workforce. But the remainder of the shortfall is comprised of very discouraged workers who will eventually seek employment. If it turns out that this third category is large, the current U.S. job market may not be as tight as commonly believed, which implies more potential upside to the U.S. economic expansion.



Source: FRED, Verus, as of 6/30/18

The consumer

Economic conditions such as low unemployment, moderate wage gains, and restrained inflation remain broadly supportive of the U.S. consumer. Personal spending growth was 4.6% year-over-year in May, in line with the conservative spending habits seen throughout this expansion.

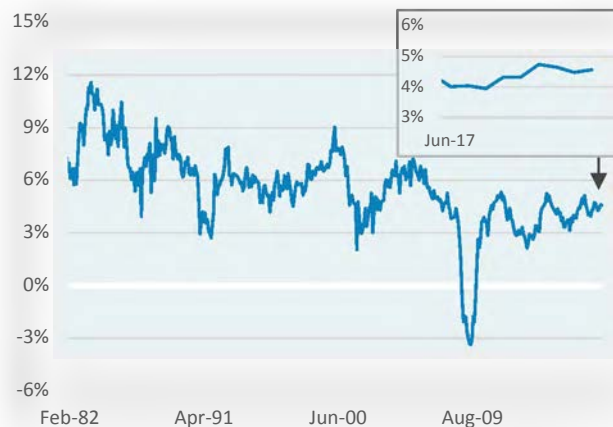
Consumers have also been timid with credit use during the current cycle. Households deleveraged following the financial crisis primarily through less mortgage debt, although this trend has flattened out more recently. Despite this

deleveraging, household debt levels are still high relative to history at 91.5% of disposable income.

Given the more conservative use of credit, dissaving has been an important driver of consumer spending. The personal savings rate was only 3.2% in May, near historical lows. Low interest rates and high asset prices likely helped push down the savings rate. If these conditions were to moderate, it would lead to a more normal balance between spending and savings.

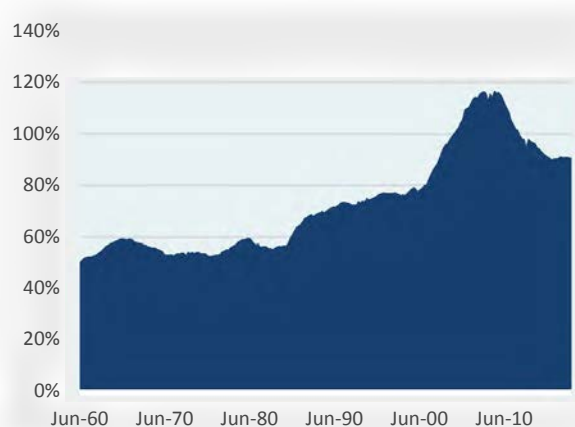
Economic conditions are still supportive of consumer spending

CONSUMER SPENDING GROWTH (YOY)



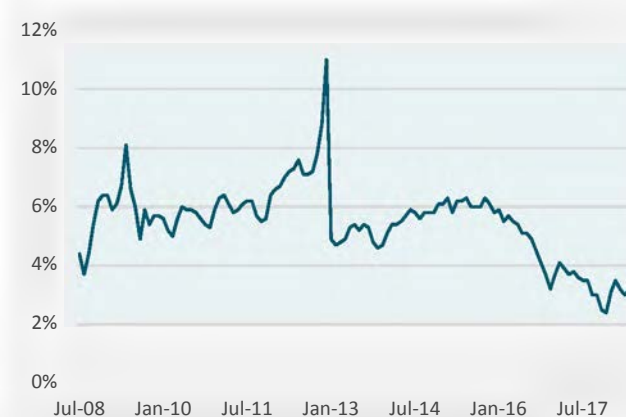
Source: Bloomberg, as of 5/31/18

HOUSEHOLD DEBT (% OF DISPOSABLE INCOME)



Source: Bloomberg, as of 3/31/18

PERSONAL SAVINGS RATE



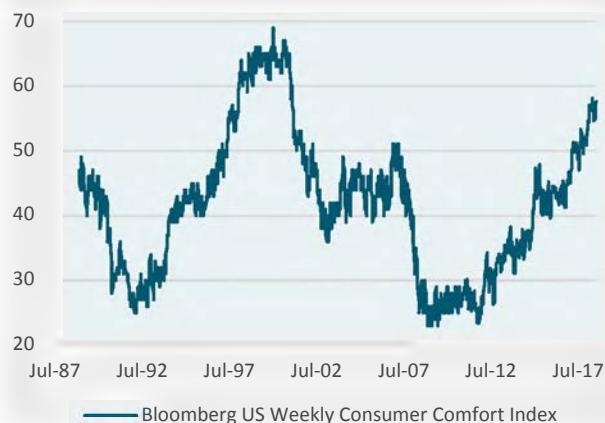
Source: FRED, as of 5/31/18

Sentiment

Consumer and business sentiment readings are impressively high. The Bloomberg U.S. Weekly Consumer Confidence Index is in the 90th percentile, since 1985. The University of Michigan Consumer Sentiment Survey is in the 87th percentile, since 1978. Survey respondents provided favorable views on jobs and wages, and broadly expect modest gains in U.S. employment. Cited concerns included rising inflation, higher energy prices, and the economic risks posed by tariffs.

The NFIB Small Business Optimism Index was 107.2 at the end of the quarter – its 6th highest reading in survey history. NFIB noted that “small business owners continue to report astounding optimism as they celebrate strong sales, the creation of jobs, and more profits.” Business owners are concerned about the inability to find qualified employees for open positions, consistent with the historically high number of unfilled job openings reported by the Bureau of Labor Services.

CONSUMER COMFORT INDEX



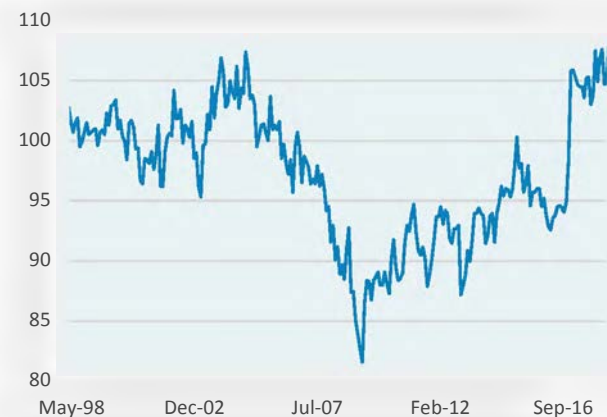
Source: Bloomberg, as of 6/30/18 (see Appendix)

CONSUMER SENTIMENT



Source: University of Michigan, as of 6/30/18 (see Appendix)

NFIB SMALL BUSINESS OPTIMISM INDEX



Source: NFIB, as of 6/30/18 (see Appendix)

Housing

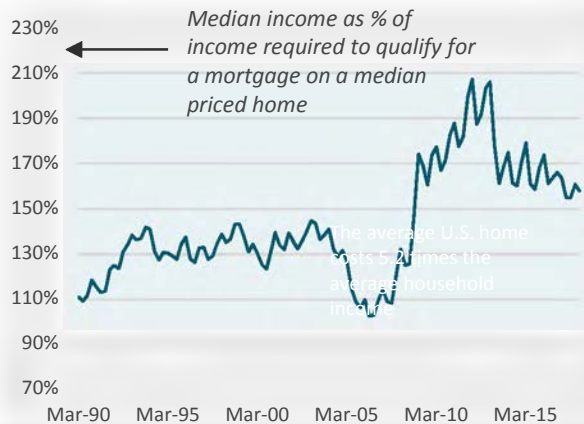
Single-family home prices have risen steadily thus far this year. As of April, the Case-Shiller National Home Price Index was up 6.4% from the previous year, and was 8.8% above the pre-crisis peak. Since the housing market bottomed in February of 2012, home prices have jumped by nearly 50% while personal incomes were up only 24% during the same period. Despite the outsized gain in home prices, demand for single-family housing has been strong, aided by low mortgage interest rates. Rising mortgage rates may make it difficult for many potential home buyers to enter the market at current prices. However, mortgage rates are still low and home affordability is high

relative to history – the median income is over 1.5 times the amount required to qualify for a mortgage on a median priced home.

The homeownership rate rose in 2017 for the first time in 13 years. This rate bottomed at 62.9% in the middle of 2016 and sits at 64.2% as of the end of the March. The rise in homeownership has been driven by younger, first time owners (i.e. Millennials). Mortgage lending standards have moderated after years of very tight standards following the financial crisis, which has helped younger buyers enter the market.

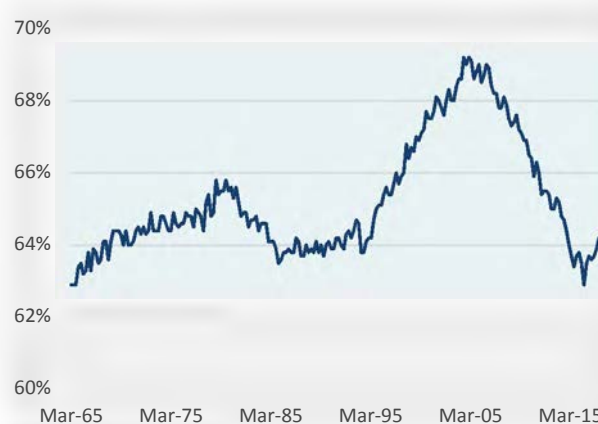
Home ownership rose for the first time in 13 years

HOUSING AFFORDABILITY INDEX



Source: Bloomberg, as of 3/31/18

HOME OWNERSHIP RATE



Source: FRED, as of 3/31/18

U.S. HOME PRICE INDEX



Source: Case-Shiller National Home Price Index, as of 4/30/18

International economics summary

- The synchronized global growth story of the past year has shifted somewhat as greater performance disparity is visible across global economies. Growth continues to be positive but is more moderate in places.
- Developed market economies are expected to grow less quickly in the coming years while emerging economy growth rates are expected to rise.
- The U.S. implemented a first round of tariffs on Chinese imports on July 6th, which impacted \$34 billion of goods. So far, only a small portion of the discussed tariffs have been enacted.
- In June, Mario Draghi officially announced the end of Europe's bond buying program. Asset purchases are scheduled to end in December, and it was promised that interest rates will remain unchanged through the summer of

2019. This message was seen by markets as more dovish than expected.

- Fears were raised over Italy's uncertain role in the EU, following a new coalition of the anti-establishment Five Star Movement and League Party taking over the government. Italian bond yields spiked severely during the move, but have since moderated.
- The Eurozone Composite PMI rose for the first time in five months to 54.8 in June. PMIs in most developed and emerging markets remain above 50, indicating expansion.
- The U.S. dollar appreciated 5% during the quarter. Certain emerging market currencies have devalued sharply, such as the Argentine peso, which is down more than 35% against the USD on the year.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.8% 3/31/18	2.8% 5/31/18	4.0% 6/30/18
Eurozone	2.5% 3/31/18	2.0% 6/30/18	8.6% 3/31/18
Japan	1.1% 3/31/18	0.7% 5/31/18	2.2% 5/31/18
BRICS Nations	5.8% 3/31/18	2.5% 6/30/18	5.6% 3/31/18
Brazil	1.2% 3/31/18	4.4% 6/30/18	12.8% 6/30/18
Russia	1.3% 3/31/18	2.3% 6/30/18	4.7% 5/31/18
India	7.7% 3/31/18	5.0% 6/30/18	8.8% 12/31/17
China	6.8% 3/31/18	1.9% 6/30/18	3.9% 3/31/18

International economics

The synchronized global growth story of the past year has shifted as economies display more disparate economic performance. The change has not been too dramatic - growth continues to be positive but more moderate in places. Since 2016 we have been discussing political and economic risks which exist in Europe. These fears were confirmed in recent quarters as Eurozone economies missed expectations in a variety of areas including GDP growth, retail sales, and industrial production – casting some doubt over the European recovery story.

The Eurozone and Japan exhibited inflation well below central bank targets in the second quarter, while the U.S. delivered a moderate rise. Overall, inflation conditions remain benign which has allowed (or necessitated) easier central bank policy.

Labor markets tightened broadly, in line with an environment of positive economic expansion. However, joblessness remains stubbornly high in some Eurozone countries such as Italy, Spain, and Greece.

Synchronized global growth has moderated

REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 3/31/18

INFLATION (CPI YOY)



Source: Bloomberg, as of 5/31/18

UNEMPLOYMENT RATE



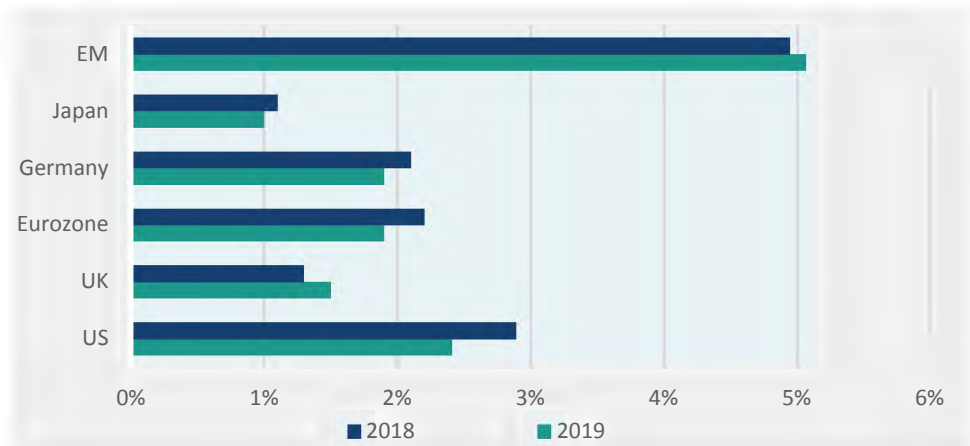
Source: Bloomberg, as of 5/31/18 or most recent release

GDP growth expectations

Economic growth expectations for the rest of 2018 and 2019 have begun to show widening differentials between the U.S. and the rest of the developed world. GDP expectations for the U.S. have been revised upward over the past six months partly due to an expected boost from fiscal stimulus, while growth expectations for other developed countries have been revised slightly lower. This disparity has led to skepticism regarding the story of accelerating synchronized global growth which economies experienced towards the second half of 2017.

In 2019, growth is expected to moderate in every major developed country as risks develop further, such as tighter monetary conditions. Achieving the right balance of monetary tightening at this stage of the economic cycle becomes increasingly difficult, and the risk of a policy mistake is greater. However, cyclical conditions in most economies (i.e. moderate inflation, wage gains) may allow central banks to be patient, extending the cycle even further. Emerging market economy growth premiums are expected to increase – these markets are earlier in their economic and monetary policy cycles than developed markets.

GDP GROWTH EXPECTATIONS (%)



Source: Bloomberg, as of 7/5/18

YTD NET CHANGES IN GDP EXPECTATIONS



Source: Bloomberg, as of 7/5/18

Political shakeup in Italy

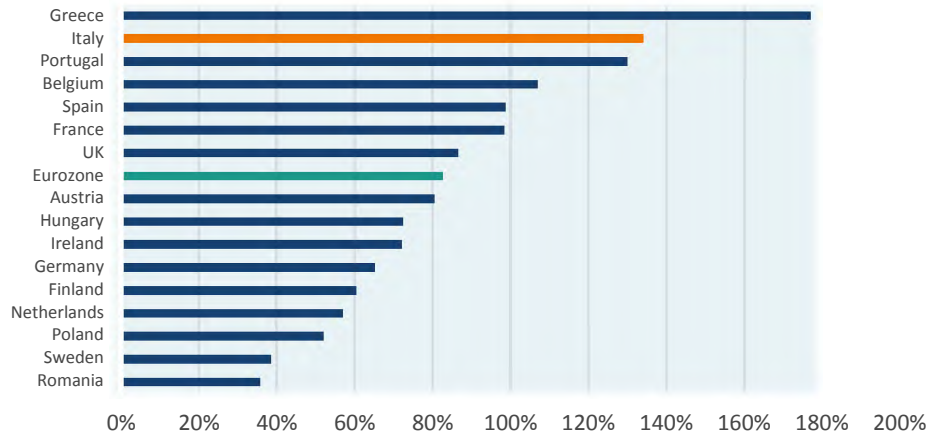
Fears were raised over Italy's possible exit from the Eurozone following a coalition of the anti-establishment Five Star Movement and League Party. Italian bond yields spiked severely during the move, but have since moderated.

The greatest immediate risk seems to be coalition talks of significant spending increases. Per the Maastricht Treaty – the founding document of the European Union (EU) – member nation fiscal budgets are limited to a debt-to-GDP level of 60% and a budget deficit of 3% of GDP. Italy's debt-to-GDP is over 130%, while for now the country is running a more reasonable budget deficit of 1.6%. If Italy forges ahead

with fiscal stimulus, this may result in further conflict with Maastricht Treaty guidelines and may place the new emboldened leaders head-to-head with the EU.

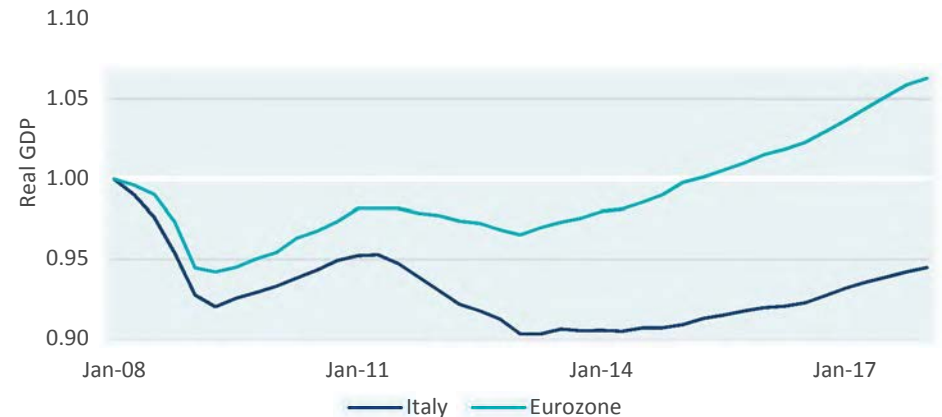
The political events in Italy tie into a broader European trend – the growing power and influence of populism. Populist movements have been fueled by severe economic disparity between some Eurozone economies as well as controversial EU policies relating open borders and immigration. This populist trend will likely pose an ongoing threat to the stability of European economies and the EU as a whole.

DEBT-TO-GDP



Source: ec.europa.eu, as of 2017 Q3

EUROZONE VS. ITALY REAL GDP



Source: Bloomberg, as of 3/31/18

Fixed income rates & credit

Interest rate environment

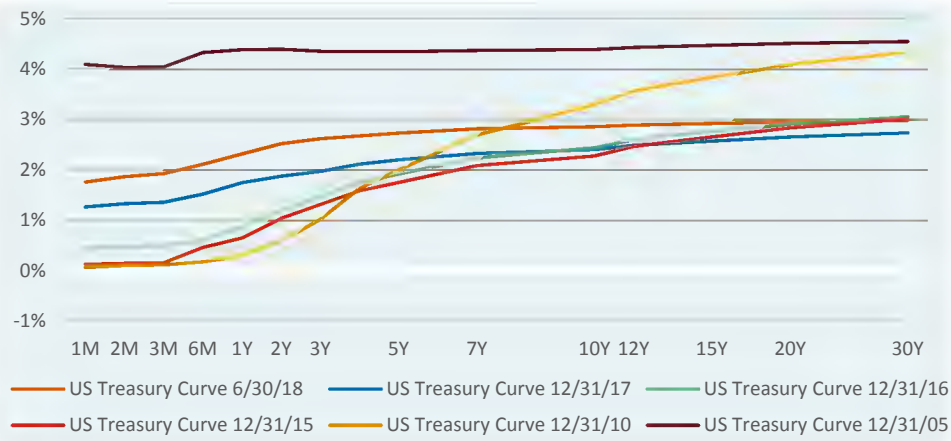
- The Fed raised interest rates in June for the second time this year to a target range of 1.8-2.0%. The balance sheet unwind continued as planned with approximately \$18 billion in Treasuries and \$12 billion in MBS coming off each month during the quarter.
- According to the Fed dot plot, officials are expecting two additional rate hikes this year, while market pricing suggests only one more hike. Quicker than expected Fed tightening would represent a key risk to the economy and asset prices.
- The 10-year U.S. Treasury yield ticked up modestly during the quarter to 2.9% while the short-end of the curve rose further. The spread between the 2- and 10-year yields fell to a cycle low of 33 bps at quarter end. By another measure of curve shape, the 10-year yield minus 3-month yield, the curve remains at a level of steepness closer to the longer-term average (92 bps vs. 184 bps average).
- Historically, an inverted yield curve has preceded recessions, but the timing between inversion and recession has been anywhere from one to three years.
- In June, Mario Draghi officially announced the end of the Eurozone's bond buying program. The ECB stated that purchases will end in December, and interest rates will remain unchanged through summer of 2019. The markets interpreted this as dovish and yields fell on the news.
- Italian sovereign yields spiked after it appeared the country was headed for new elections later in the year. The 2-year yield jumped 186 bps in one day to 2.8% as risk premiums rose. In the end, a coalition government was formed between the Five Star and League parties and the country avoided going back to the polls.
- Emerging market local and hard yields moved higher, influenced by a general risk-off sentiment towards EM as well as idiosyncratic risks in several vulnerable countries, such as Turkey and Argentina.

Area	Short Term (3M)	10 Year
United States	1.91%	2.86%
Germany	(0.59%)	0.30%
France	(0.63%)	0.67%
Spain	(0.42%)	1.32%
Italy	(0.12%)	2.68%
Greece	1.04%	3.96%
U.K.	0.61%	1.28%
Japan	(0.14%)	0.04%
Australia	1.92%	2.63%
China	3.01%	3.48%
Brazil	6.45%	11.68%
Russia	6.62%	7.81%

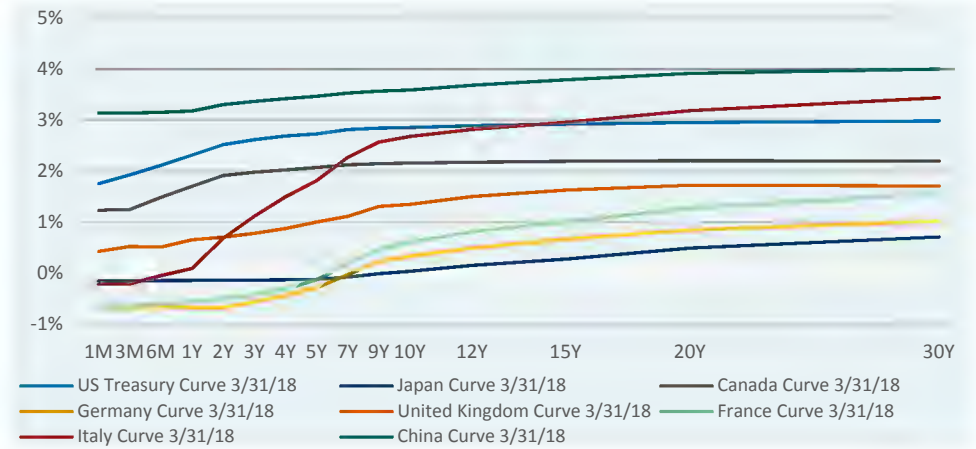
Source: Bloomberg, as of 6/30/18

Yield environment

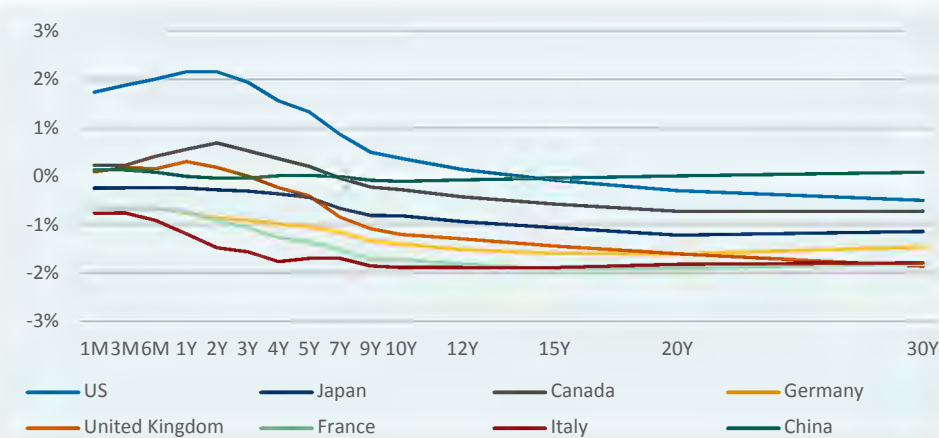
U.S. YIELD CURVE



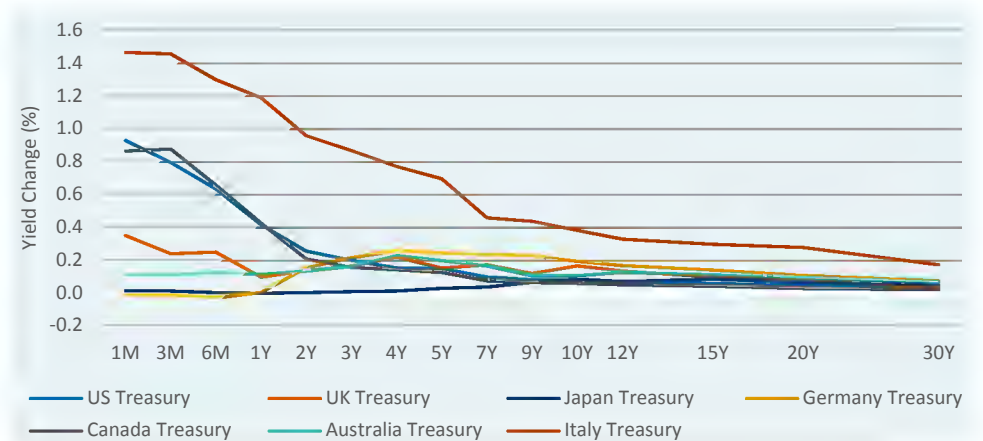
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS

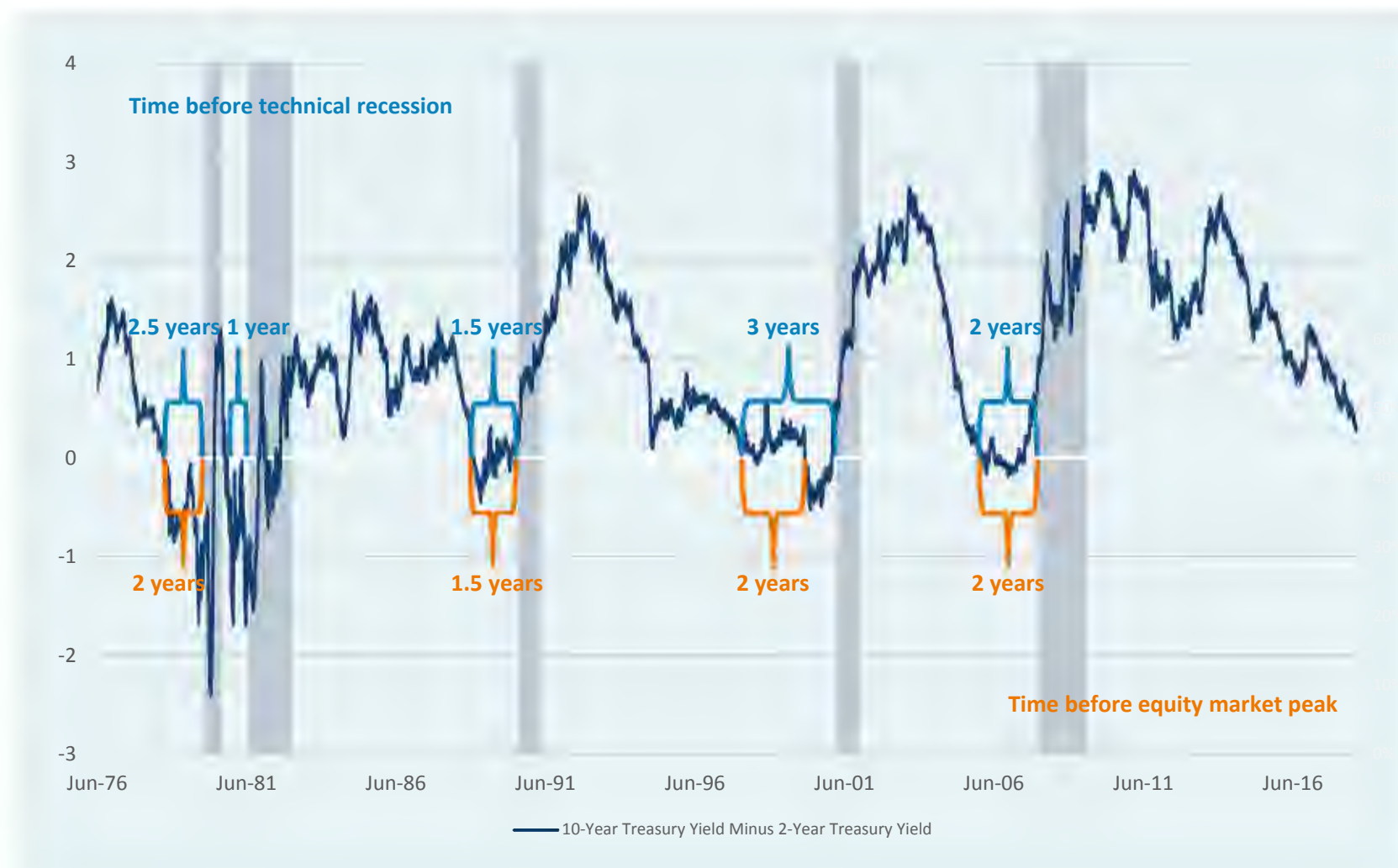


IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/18

What does an inverted curve indicate?



Yield curve inversions often occur during the late-cycle

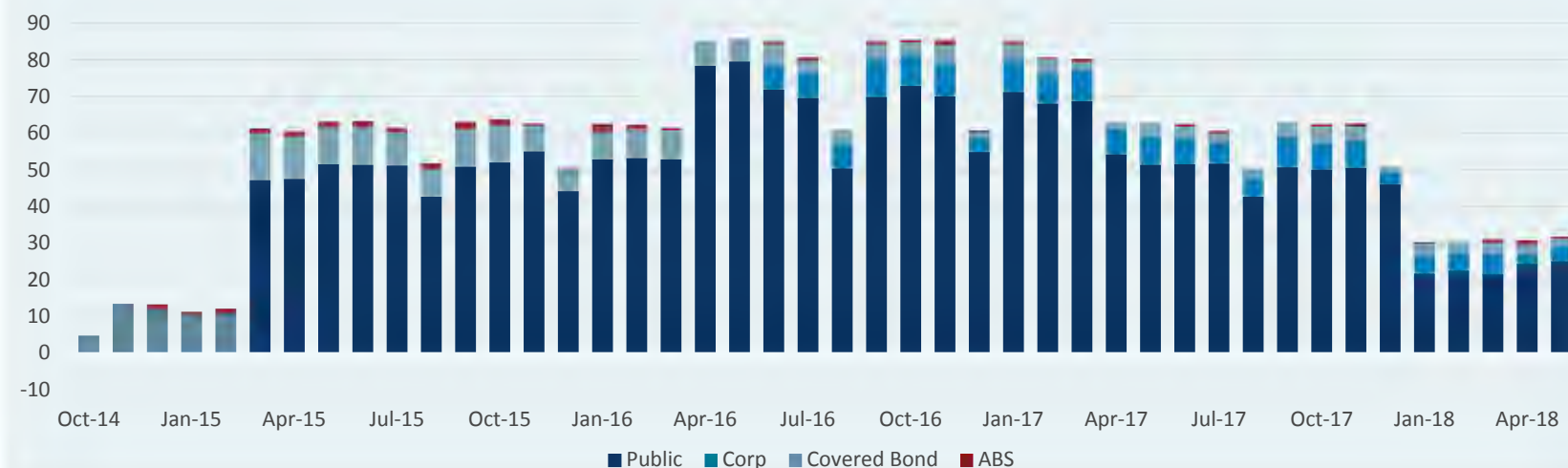
Recession and equity market peaks typically do not occur immediately after an inversion

Source: FRED, Verus – time that passed between initial yield curve inversion and the next technical recession, and time that passed between initial yield curve inversion and next equity market peak

Note: There was not a clear equity market peak during the early 1980's expansion. A "time before equity market peak" was therefore not calculated.

ECB bond buying program

MONTHLY ASSET PURCHASES (EUROS BILLIONS)



European Central Bank bond purchases are expected to end in December

These purchases have acted as a major support to bond prices in recent years

Country	Debt Purchased by ECB	% of Total Sovereign Purchases	% of Total Country Debt
Germany	€ 485.6	26.6%	23.2%
France	€ 396.7	21.8%	17.9%
Italy	€ 344.8	18.9%	15.0%
Spain	€ 244.4	13.4%	21.4%
Netherlands	€ 108.5	5.9%	26.1%
Belgium	€ 69.2	3.8%	15.3%
Austria	€ 54.9	3.0%	18.9%
Portugal	€ 33.7	1.8%	13.9%

Credit environment

Credit spreads in both leveraged loans and high yield have widened slightly since the beginning of the year, but are still sitting well below their historical averages. Loans outperformed high yield bonds during eight of the past nine months. LIBOR has steadily risen since 2016, surpassing the LIBOR floors which exist in senior loans, causing them to be fully floating-rate instruments.

U.S. high yield option-adjusted spreads widened slightly in the second quarter to 3.6% – the asset class generated a

1.0% total return. Tight credit spreads in both high yield bonds and loans have been driven by strong corporate fundamentals, manageable debt maturities and general macroeconomic improvement. Credit spreads have historically been a good indicator of future performance relative to Treasuries.

Based on low interest rates and tight spreads, we recommend an underweight to U.S. investment and high yield credit.

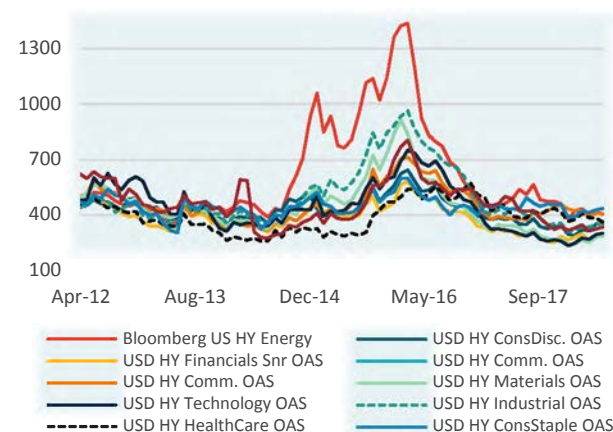
Credit spreads are tight across the capital structure

SPREADS



Source: Barclays, Bloomberg, as of 6/30/18

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 6/30/18

Market	Credit Spread (6/30/18)	Credit Spread (1 Year Ago)
Long US Corporate	1.8%	1.6%
US Aggregate	1.2%	1.0%
US High Yield	3.6%	3.6%
US Bank Loans	3.5%	3.7%

Source: Barclays, Credit Suisse, Bloomberg, as of 6/30/18

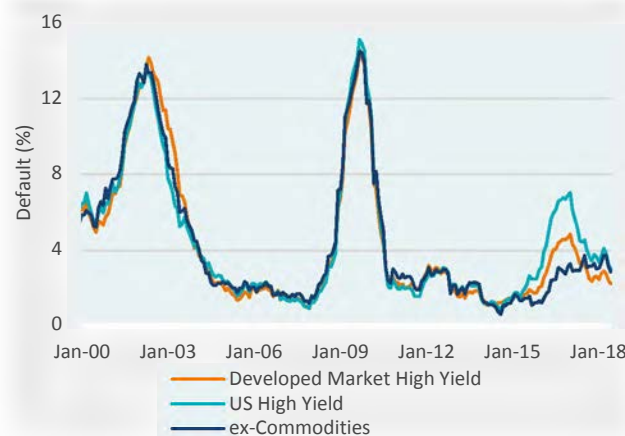
Issuance and default

Default activity has been low and stable in the U.S. and international credit markets. The par-weighted U.S. default rate remains below its long-term average of 3.0-3.5% and is currently at 2.0%. In the second quarter, \$1.5 billion of defaults occurred - the lowest quarterly total since Q4 2013.

Senior loan and high yield markets are recovering from a wave of defaults seen in 2015-2016, generated from energy and metals/mining sectors. Recovery rates for high yield bonds have vastly improved since that time.

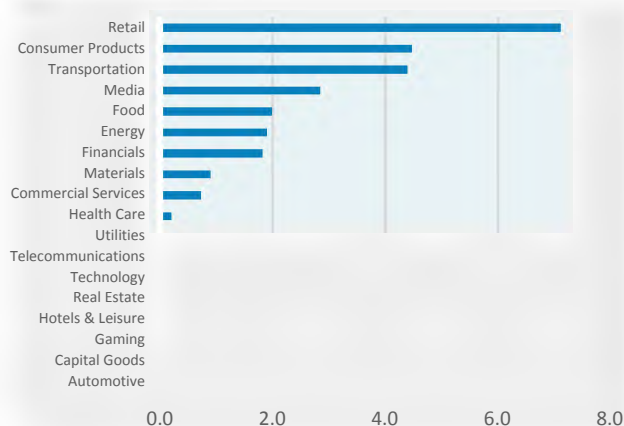
Issuance in high yield bonds totaled \$126 billion compared with \$176 billion across the first half of 2017. Similarly, issuance in leveraged loans totaled \$501 billion, compared with over \$577 billion in the first half of 2017. New issue spreads continue to compress with strong demand supported by significant retail and institutional inflows into both high yield and senior loan asset classes, as well as CLO formation.

HY DEFAULT TRENDS (ROLLING 1 YEAR)



Source: BofA Merrill Lynch, as of 6/30/18

HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 6/30/18 – par weighted

GLOBAL ISSUANCE (BILLIONS)



Source: Bloomberg, BofA Merrill Lynch, as of 6/30/18

Emerging market debt

Emerging market debt experienced a difficult quarter, particularly in local currency bonds. The JPM EMBI Index (hard) and JPM GBI-EM Index (local) returned -3.5% and -10.4%, respectively. Much of the negative performance in local debt was driven by currency depreciation and rising risk premiums in several vulnerable countries. Excluding Venezuela, there has not yet been any defaults, delayed payments or credit downgrades in this space – Argentina narrowly avoided defaulting after securing a \$50 billion bailout from the IMF.

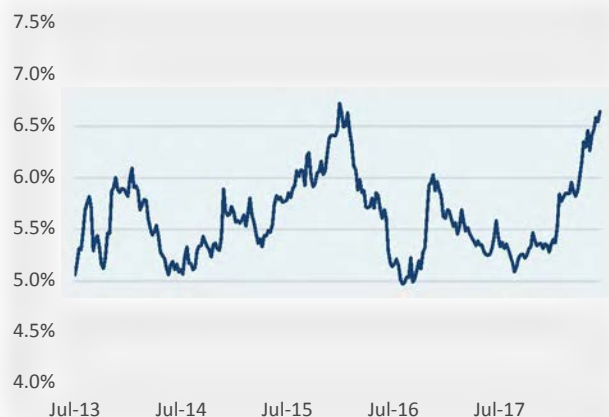
Currency movement in local debt accounted for approximately 80% of the losses in the second quarter. While many currencies

moved due to broad strengthening of the U.S. dollar, several countries with high external debt loads and current account deficits, including Brazil, Argentina, and Turkey, saw their currencies depreciate sharply.

Outside of a few countries, we believe the economic backdrop remains positive for emerging market debt. Most markets have come a considerable way in trimming external debt over the past few years which has made them less reliant on dollar funding. The recent sell-off has created value opportunities that might be taken advantage of – active management is preferred in this asset class.

We maintain a positive outlook on emerging market debt

EMD HARD YIELDS



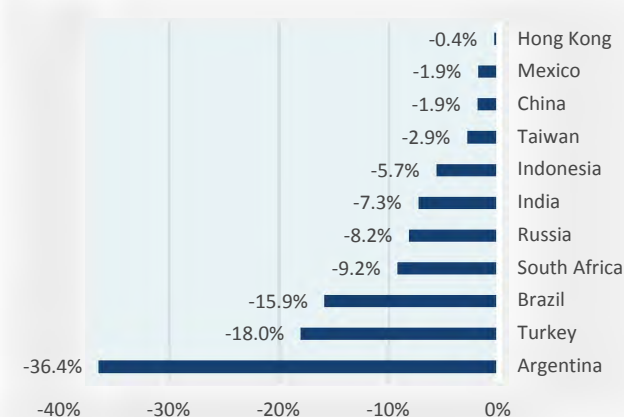
Source: Bloomberg, as of 6/30/18

EMD LOCAL YIELDS



Source: Bloomberg, as of 6/30/18

YTD CURRENCY LOSSES VS USD



Source: Bloomberg, as of 6/30/18

Equity

Equity environment

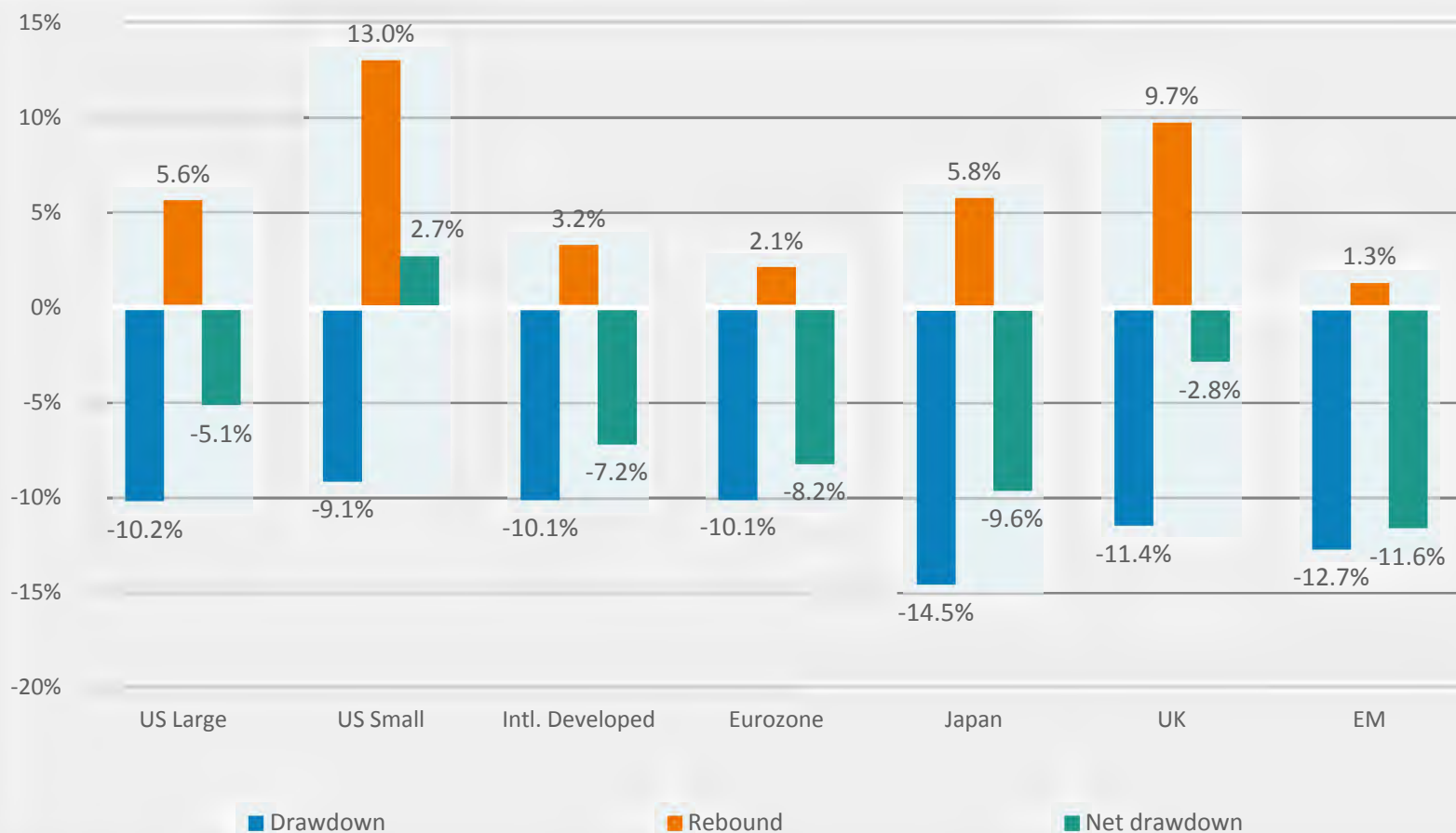
- We maintain an overweight position to equities through a positive tilt to emerging markets. We do not believe recent price swings reflect any major fundamental change to the trajectory of emerging markets. Equity bull runs in these markets have typically incurred a 10% or larger drawdown sometime during the rally.
- Outside of emerging markets, equities have remained fairly range bound following the February selloff. As corporate earnings rise and prices stay flat, equity valuations have been pushed down to more attractive levels closer in line with the historical average.
- Concerns over global trade contributed to a choppy month for equities, although no major breakthroughs or setbacks occurred. Global equities were up +2.9% on a hedged basis but currency depreciation acted as a drag (+0.5% unhedged).
- The value premium has delivered anomalously poor performance – the worst 10-year return on record (since 1926). However, because performance differences were due to earnings growth disparity rather than moves in valuation, the price difference between value and growth stocks has remained fairly normal. A tactical opportunity to overweight value is not yet apparent - we believe investors should stay the course.
- Equity volatility moved to below-average levels once again, following February's spike. The VIX averaged 15.3 during Q2.
- Currency volatility has frequently been greater than equity market volatility in recent years, causing return disparity for investors with unhedged international assets. A hedging program could allow investors to significantly reduce or eliminate this uncompensated risk.

	QTD TOTAL RETURN		YTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (Russell 1000)	3.6%		2.9%		14.5%	
US Small Cap (Russell 2000)	7.8%		7.7%		17.6%	
US Large Value (Russell 1000 Value)	1.0%		-2.0%		6.0%	
US Large Growth (Russell 1000 Growth)	5.8%		7.3%		22.5%	
International Large (MSCI EAFE)	(1.2%)	3.9%	(2.7%)	0.0%	6.8%	7.9%
Eurozone (Euro Stoxx 50)	(2.3%)	3.6%	(3.7%)	0.5%	3.7%	3.7%
U.K. (FTSE 100)	(3.1%)	9.8%	(0.9%)	2.2%	10.2%	9.9%
Japan (NIKKEI 225)	0.2%	4.4%	0.5%	(1.1%)	15.1%	13.2%
Emerging Markets (MSCI Emerging Markets)	(8.0%)	(3.6%)	(6.7%)	(3.0%)	8.2%	9.5%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 6/30/18

2018 peak to trough

PEAK TO TROUGH



Most equity markets remain range bound since the February selloff

U.S. small caps have fully recovered while E.M. has stayed depressed

2018 peak to trough, local returns, as of 7/2/18 – the trough (market bottom) date for each market is as follows: US Large (2/8), US Small (2/8), Intl. Dev. (3/26), Eurozone (3/23), Japan (3/23), UK (3/26), EM (6/28)

Domestic equity

U.S. equities were range bound over the quarter – the S&P 500 Index posted a positive return of 3.4% and traded within a tight range between 2600 and 2800. The ups and downs of trade negotiations, particularly those between the U.S. and China, impacted equity markets during the quarter. However, considerable uncertainty surrounding the outcome of these negotiations likely helped keep equities from breaking out of their range in either direction.

Strong year-over-year earnings growth is expected to continue for the second quarter. According to FactSet, the bottom-up analyst earnings growth forecast for the S&P 500 is 19.9%. Forward 12-month earnings growth expectations were revised higher throughout the quarter while equity prices leveled out. Given that prices tend to follow earnings, there may be potential upside to prices if the expected high growth is realized. Alternatively, higher discount rates from Fed tightening may offset the impact of strong earnings growth.

Fundamentals appear unchanged despite falling prices

U.S. EQUITIES



Source: Russell Investments, as of 6/30/18

CALENDAR YEAR EARNINGS GROWTH



Source: FactSet, as of 7/6/18

S&P 500 PRICE & EARNINGS



Source: Bloomberg, as of 6/30/18

Domestic equity size & style

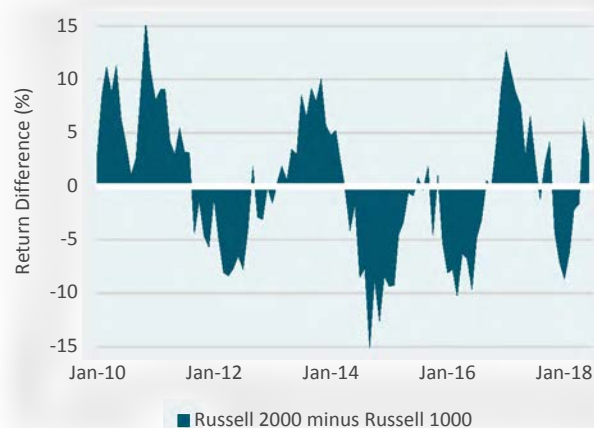
Large cap equities (Russell 1000 3.6%) underperformed small cap (Russell 2000 7.8%) during the quarter. Value stocks continued to lag growth (Russell 1000 Value 1.2% vs. Russell 1000 Growth 5.8%).

Value has delivered anomalously negative returns – the worst 10-year run on record (since 1926). Because performance differences were due to earnings growth disparity rather than moves in valuation, the price difference between value and growth stocks has remained normal. Earnings trends can be somewhat attributed to the global financial crisis where financials lagged considerably, followed by a bull market for

technology stocks (value is concentrated in financials while growth is concentrated in tech). In other words, much of value's underperformance was macroeconomic in nature.

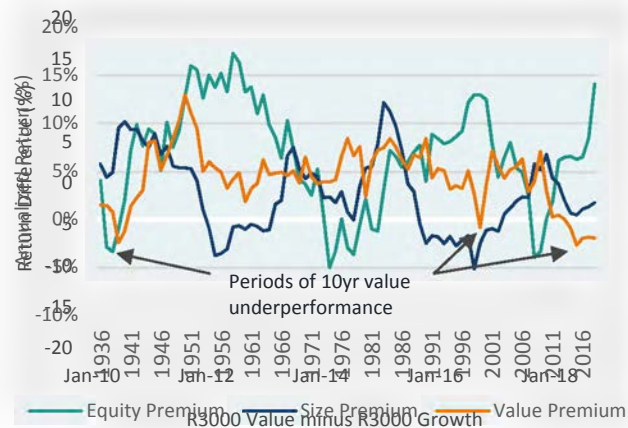
We do not yet see a catalyst for a value comeback, and it is possible that when value bounces back there will not be obvious signals beforehand. Poor recent performance is not always a solid standalone indicator of future reversal. Relative valuations are fairly in line with history, and the economic environment is positive (growth often performs well during later stages of economic cycles). We recommend that value investors stay the course.

SMALL CAP VS LARGE CAP (YOY)



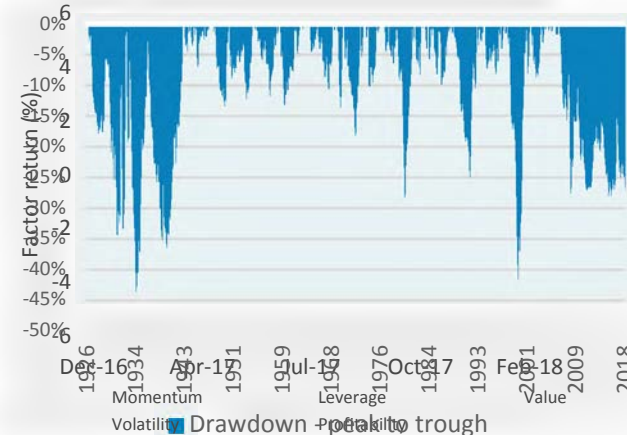
Source: FTSE, as of 6/30/18

FACTOR PERFORMANCE (10YR ROLLING)



Source: Kenneth French Library, as of 5/30/18

VALUE - PEAK TO TROUGH



Source: Kenneth French Library, as of 5/30/18

International developed equity

Unhedged international equities underperformed U.S. equities during Q1 (MSCI EAFE -1.2% vs. S&P 500 +3.4%). On a hedged basis, international equities delivered returns of 3.9%, outpacing the U.S. market. Currency volatility has frequently been greater than equity market volatility in recent years, causing considerable return disparity for investors with unhedged investments in international assets. Equity returns in most markets have been positive year-to-date on an ex-currency basis.

Earnings growth remains strong and will likely be supportive of equity prices going forward. The U.S. has taken back the lead in year-over-year earnings growth, alongside a large boost from U.S. tax reform and a relatively strong economy.

P/E multiples have moved lower as equity prices remain range bound and earnings grow at a brisk pace. Equity valuations are now closer to the longer-term average – a notable change from recent years.

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 6/30/18

EARNINGS GROWTH (YOY)



Source: MSCI, as of 6/30/18 – YoY growth in forward earnings

FORWARD P/E



Source: MSCI, as of 6/30/18

Emerging market equity

Emerging market equities delivered losses of -8.0% in Q2, but remain up +8.2% on a year-over-year basis. Currency movement caused -4.4% of losses during the quarter.

We maintain an overweight position to equities through a positive tilt to emerging markets. Equity bull runs in these markets through history typically incur at least a 10% drawdown sometime during the rally (see next page). Recent price swings were driven by valuation changes rather than by a fundamental change in earnings.

Developed markets are expected to grow less quickly in the coming years while emerging economic growth is expected to rise. A positive growth premium of emerging economies relative to developed economies has historically acted as a tailwind for EM outperformance.

We believe positive emerging economy growth trends, attractive valuations, a strong earnings environment, and depressed currencies should provide an environment of strong equity performance across these markets.

Conditions remain positive for EM equity

EQUITY PERFORMANCE (3YR ROLLING)



Source: Standard & Poor's, MSCI, as of 6/30/18

EM GROWTH PREMIUM



Source: IMF

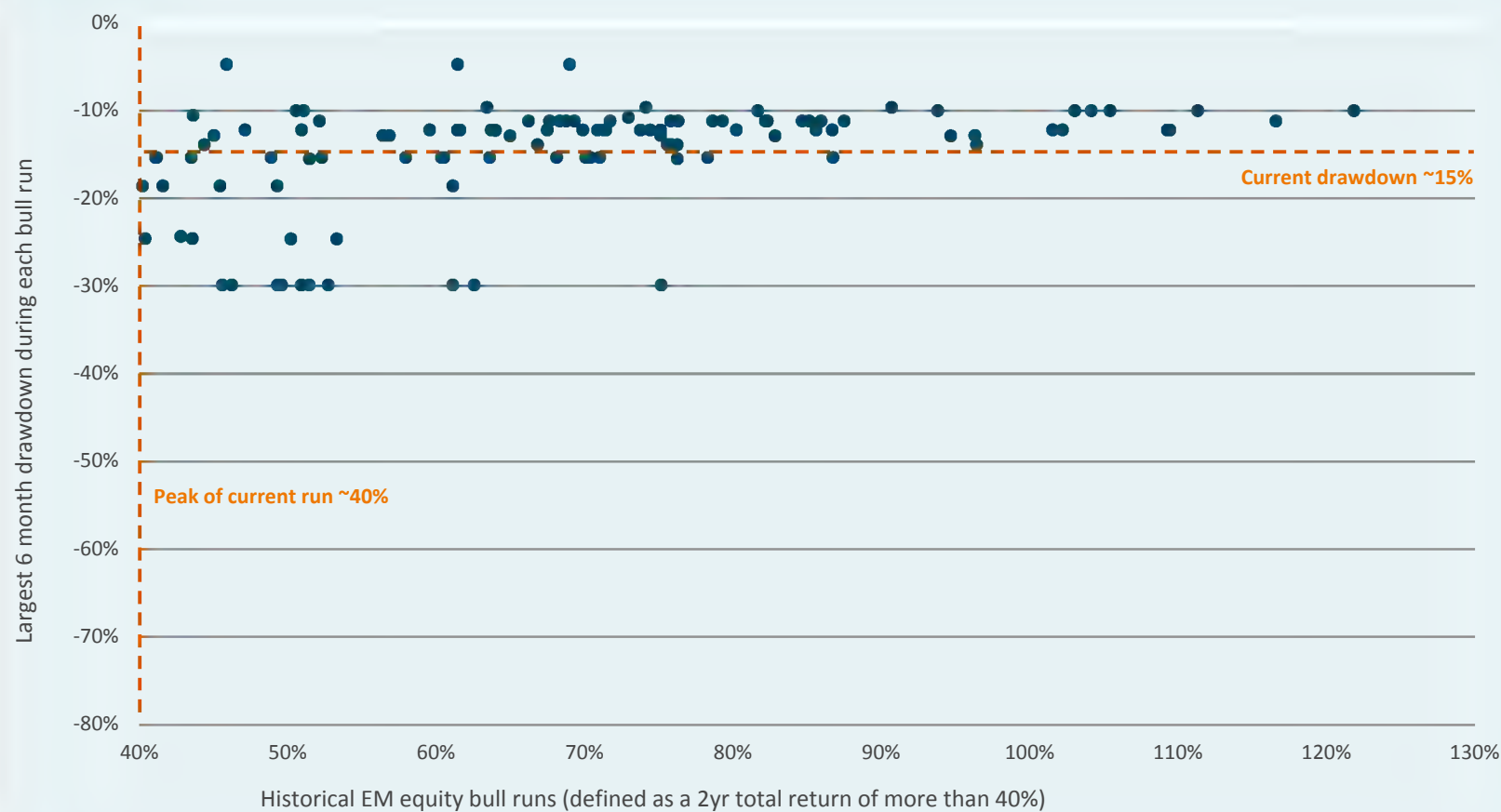
EARNINGS GROWTH (YOY)



Source: MSCI, as of 6/30/18

Emerging market volatility

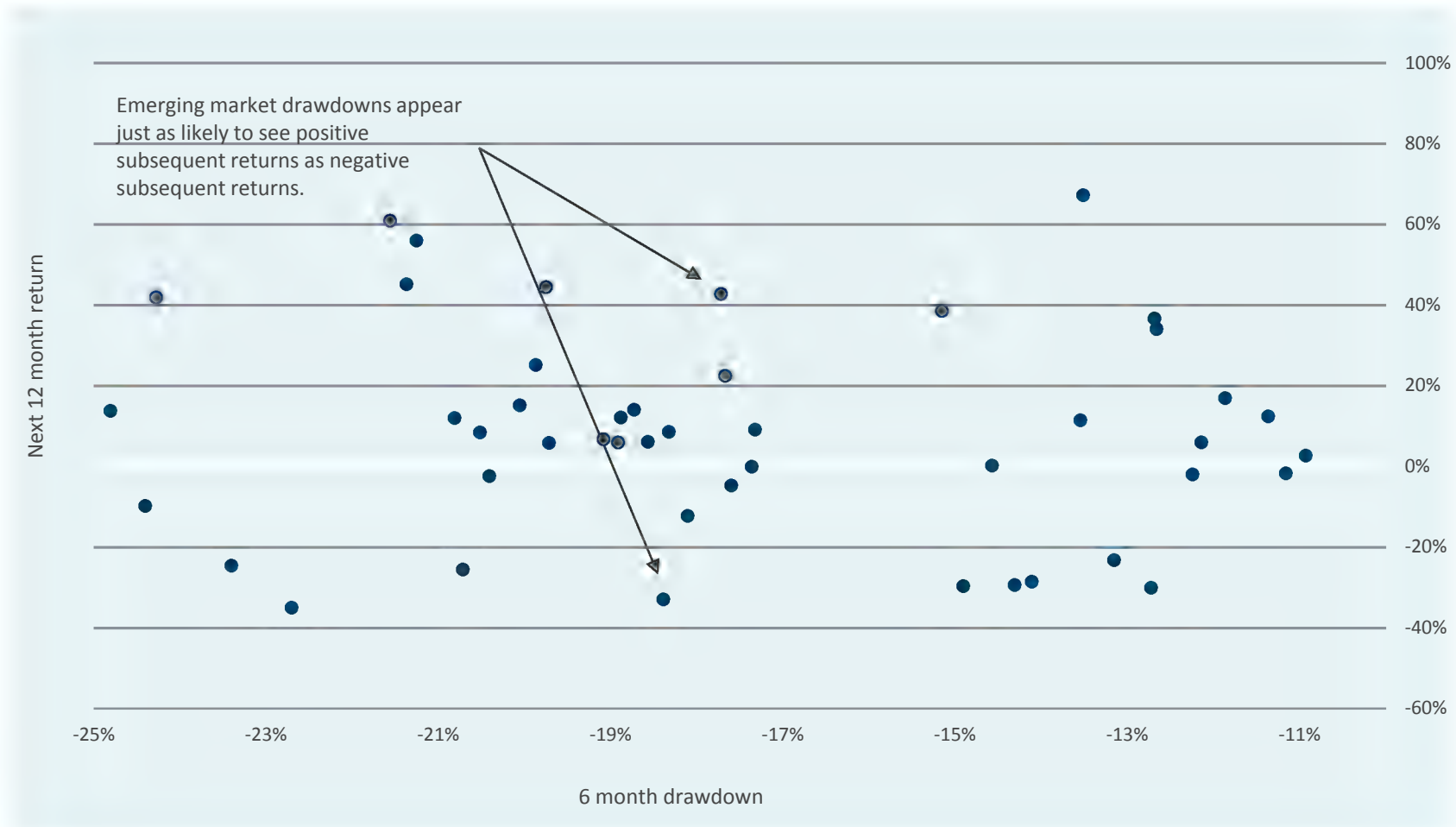
Drawdowns of 10% or more are typical during EM bull runs



The average drawdown experienced during all 2 year periods of 40%+ returns was -14.8%

Emerging market volatility

The recent drawdown does not imply heightened risk of further losses



Source: MSCI, Verus

Equity valuations

Equity valuations have moved lower year-to-date as prices fell and earnings increased at a strong pace. U.S. equity valuations have fallen the most as domestic earnings growth recently took the lead year-over-year against other markets.

The trailing P/E ratio of the S&P 500 is notably high, but as we have seen throughout the expansion more expensive markets may deliver consistent outperformance if fundamentally driven by robust earnings. On a forward P/E basis, the U.S. is now only slightly rich relative to valuations of the past 15 years (16.5 today vs. an average of 15.1). Price is an important component of equity investing, but higher prices may be indicative of

greater future earnings, which suggests investors cannot rely on price alone when forming expectations.

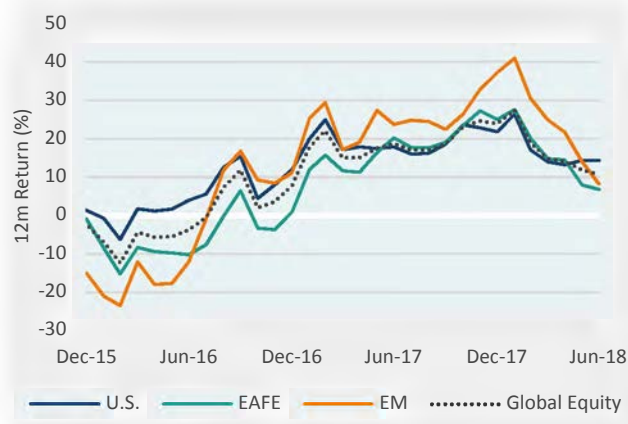
When examining equity markets through our *carry*, *value*, *trend*, and *macro* lens, *carry* has improved through lower prices (higher dividend and earnings yields), *value* has improved through lower equity multiples (range bound prices with rising earnings has pushed multiples downward), *trend* has flattened on a short-term basis but remains positive on a 12-month basis, and the *macro* environment has moderated a bit (notable weakness in Europe but strength in the U.S.)

FORWARD P/E RATIOS



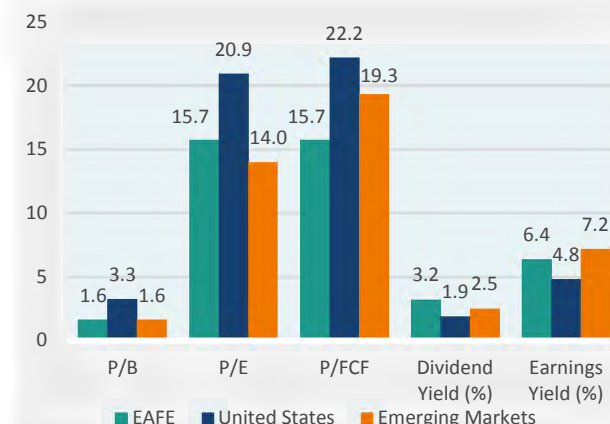
Source: MSCI, as of 6/30/18

MOMENTUM (1YR)



Source: Standard & Poor's, MSCI, as of 6/30/18

VALUATION METRICS (3-MONTH AVERAGE)



Source: Bloomberg, as of 6/30/18 - trailing P/E

Equity volatility

U.S. equity volatility retreated in the second quarter after a period of elevated risk following the February volatility spike. The VIX Index of implied volatility declined steadily throughout the quarter and averaged 15.3, compared to an average of 17.4 in the first quarter.

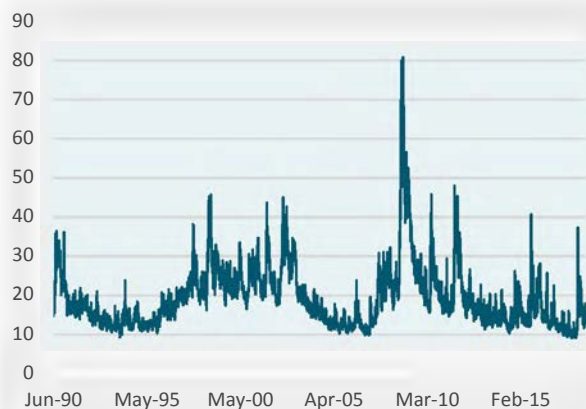
Realized volatility was below average in domestic and international equity markets in the second quarter, despite the concerns over a global trade war. Emerging markets experienced the greatest volatility, although the annualized standard deviation of daily returns in Q2 were

only 13.4% (MSCI Emerging Markets). International developed markets (MSCI EAFE) had a standard deviation of only 9.0%.

The implied volatility curve (i.e. skew), which looks at the differences in implied volatility at various option strike prices, has recently steepened. A steeper volatility curve means that investors are paying a higher premium for equity downside protection.

Equity volatility subsided back to below average levels

U.S. IMPLIED VOLATILITY (VIX)



Source: CBOE, as of 6/30/18

REALIZED 1-YEAR ROLLING VOLATILITY



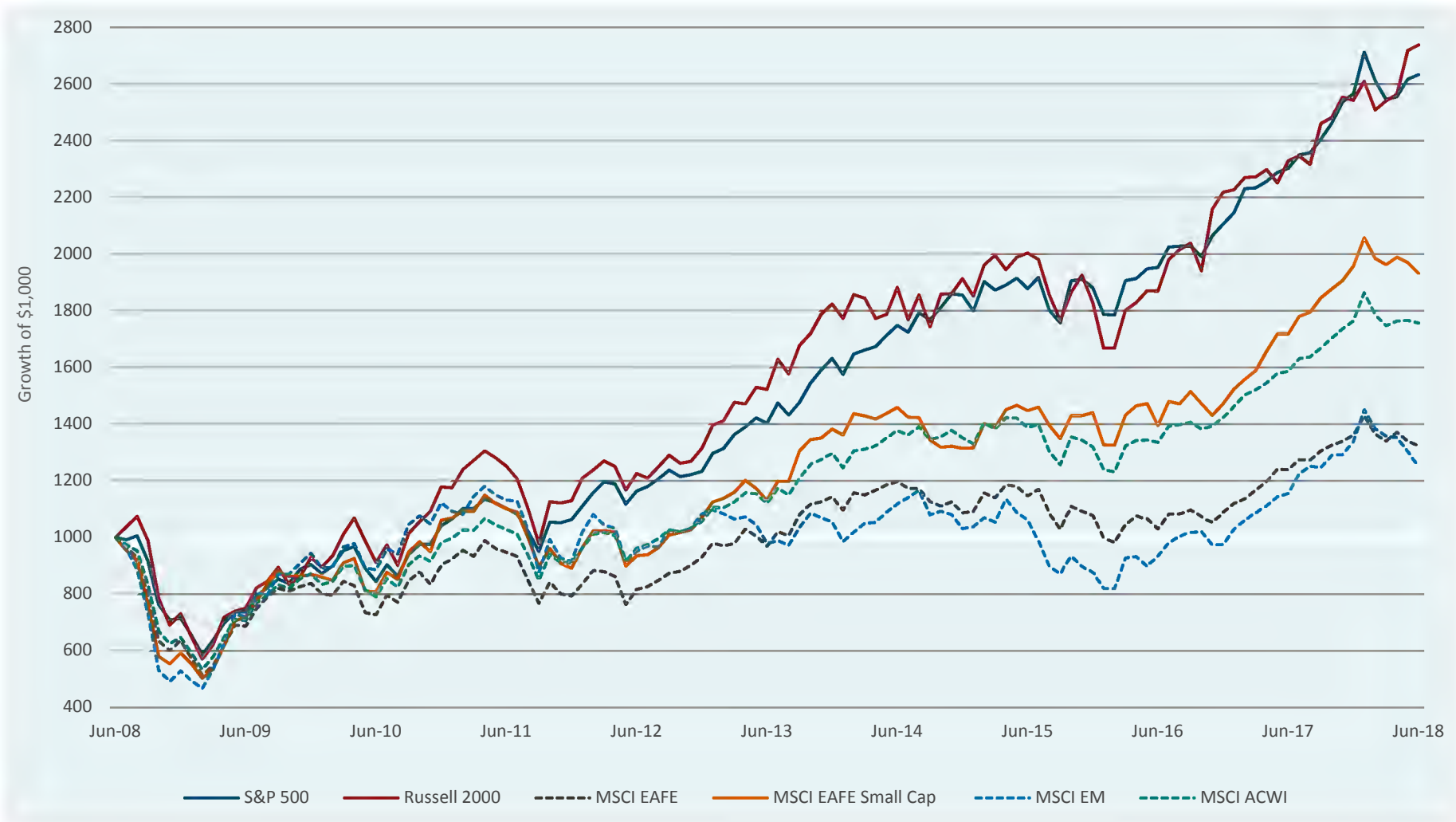
Source: Bloomberg, as of 6/30/18

U.S. IMPLIED VOLATILITY CURVE



Source: Bloomberg, as of 6/30/18

Long-term equity performance



Source: Morningstar, as of 6/30/18

Other assets

Currency

The U.S. dollar appreciated 5% during the quarter, which erased the positive equity returns of many international markets. Relative strength of the U.S. economy, paired with Federal Reserve tightening, likely helped lead the U.S. dollar higher.

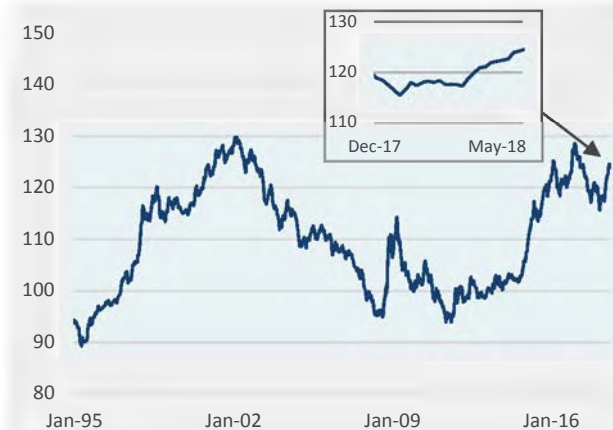
Interest rate differentials between the U.S. and the rest of the developed world have been steadily widening over the past 10 months. The spread between the U.S. 10-year Treasury yield and the yield on a basket of developed sovereign debt rose approximately 80 bps to 2.3% during this

time. Higher relative interest rates has historically been a short-term driver of currencies.

Emerging market currencies fell 9.1% in Q2, based on the JPM EM Currency Index. The performance of most currencies were in line with expectations based on U.S. dollar appreciation against developed market currencies. Several countries with large current account deficits that are heavily reliant on dollar funding, such as Argentina and Turkey, saw their currencies fall sharply. As a whole, emerging market currencies are significantly undervalued based on purchasing power parity.

The U.S. dollar materially appreciated, reversing a multi-year downtrend

U.S. DOLLAR TRADE WEIGHTED INDEX



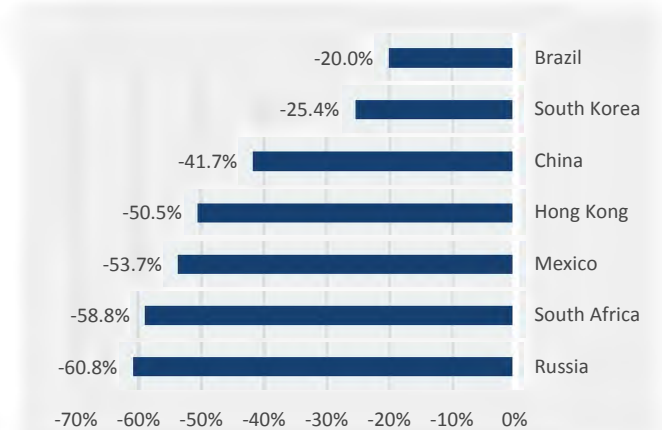
Source: Federal Reserve, as of 6/30/18

U.S. VS. DEVELOPED INTEREST RATE SPREAD



Source: Verus, Bloomberg, as of 6/30/18

PURCHASING POWER PARITY VALUATIONS VS. U.S. DOLLAR (BIG MAC INDEX)



Source: Bloomberg, as of 6/30/18

Alternative beta

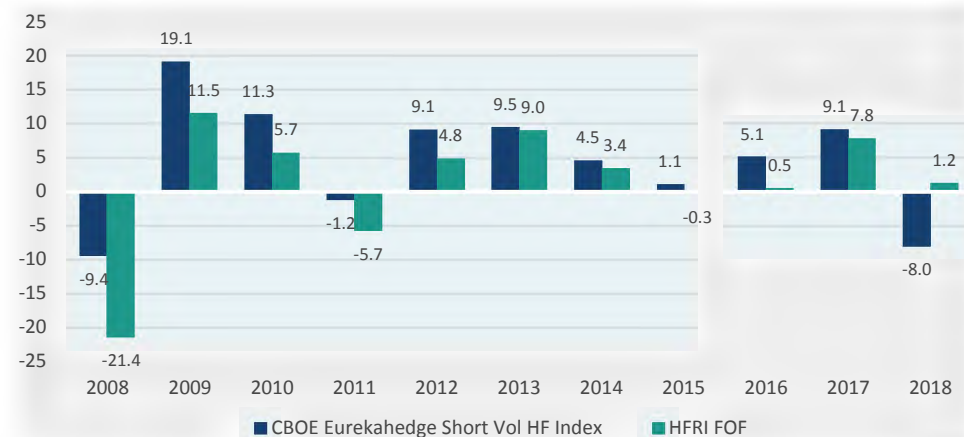
Alternative beta strategies have posted losses in Q2 and year-to-date. Equity value exposures accounted for the largest component of strategy losses in Q2 and year-to-date. Short volatility, a strong performing strategy over the past 10 years, also suffered a severe drawdown in Q1 and affected returns.

Correlation characteristics often benefit strategies with diversified factor exposure (some factors provide losses while others provide gains), but several factors including momentum and carry have not counterbalanced losses in value as they have often done historically.

We do not believe that alternative beta strategies are “broken” per se, but instead have reflected coinciding factor drawdowns as well as muted equity market returns more broadly.

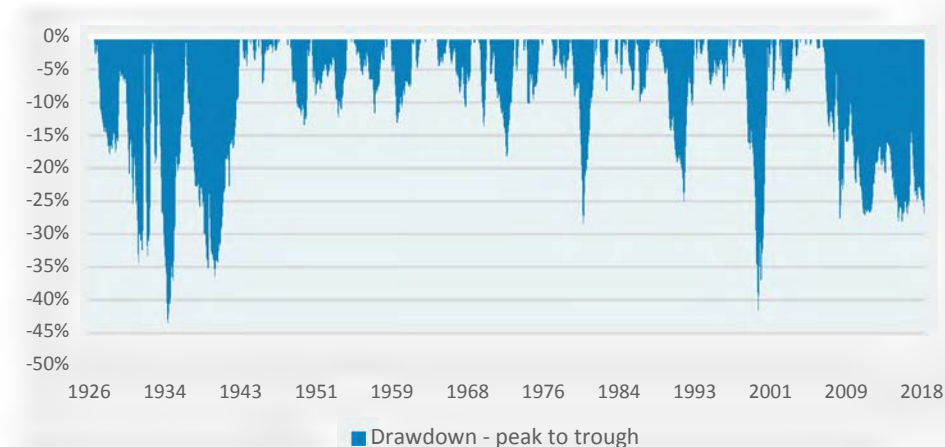
Attribution analyses on the Alt Beta strategies we follow confirm that recent performance is in line with 8-12% target volatility levels of each strategy. We are closely monitoring these funds through an environment of heightened volatility and are continuing discussions with managers. These losses are significant but are within the range we would expect, given the underlying factor exposure.

SHORT VOLATILITY PERFORMANCE



Source: CBOE, HFRI, as of 6/30/18

VALUE – PEAK TO TROUGH



Source: Kenneth French Library, Verus, as of May 2018 – shows value factor peak to trough drawdowns through time

Appendix

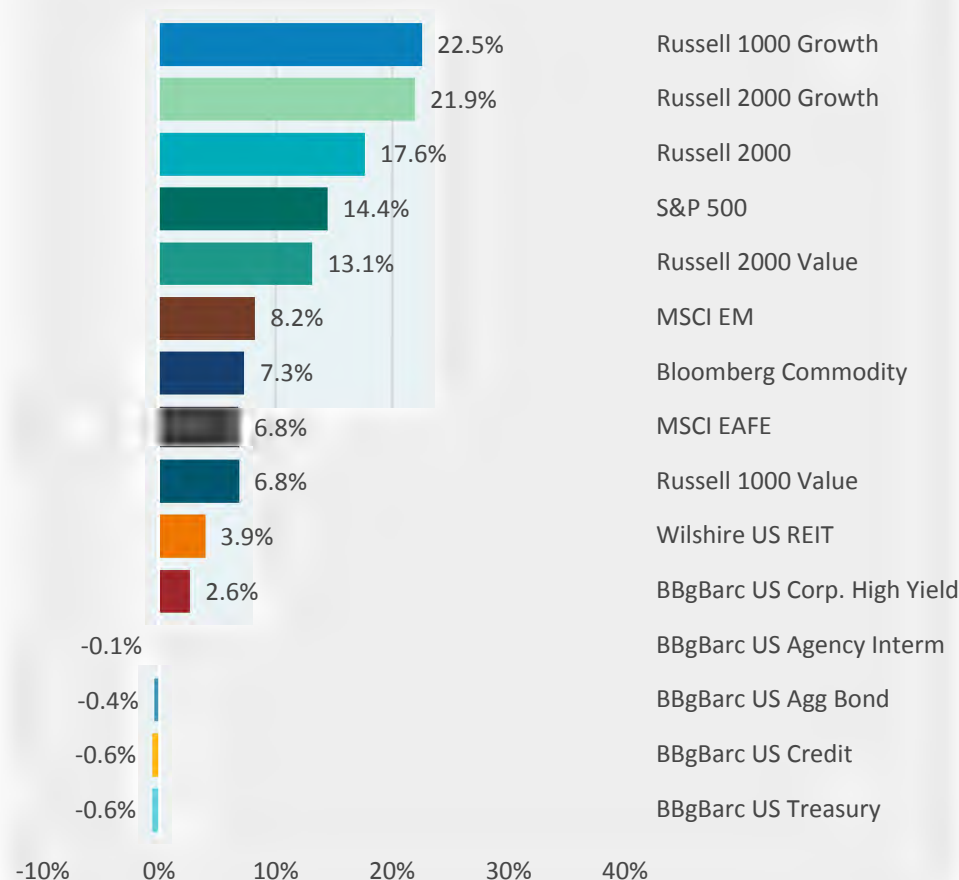
Periodic table of returns



Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 3/31/18.

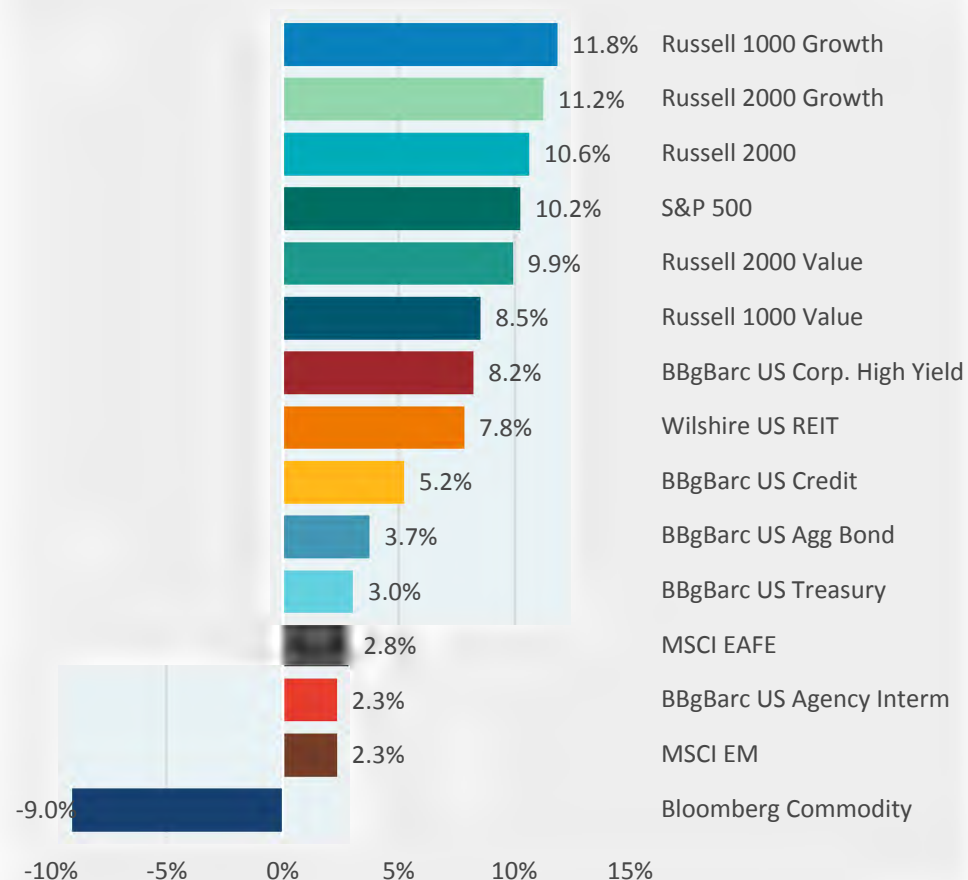
Major asset class returns

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/18

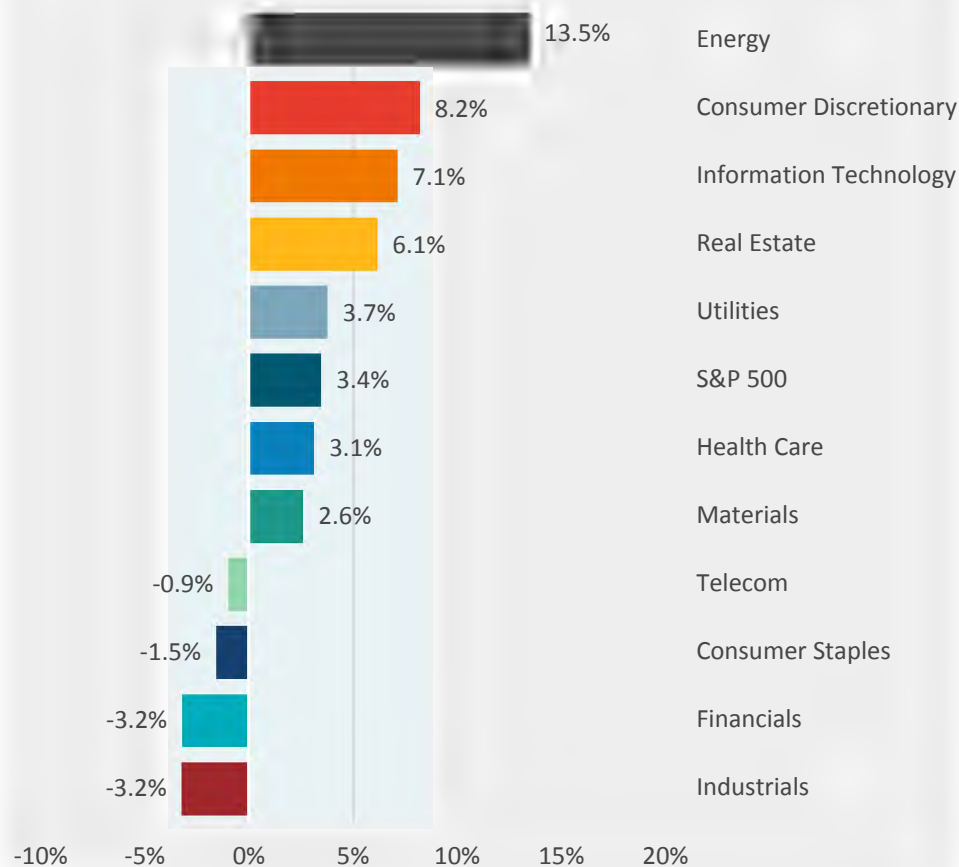
TEN YEARS ENDING JUNE



Source: Morningstar, as of 6/30/18

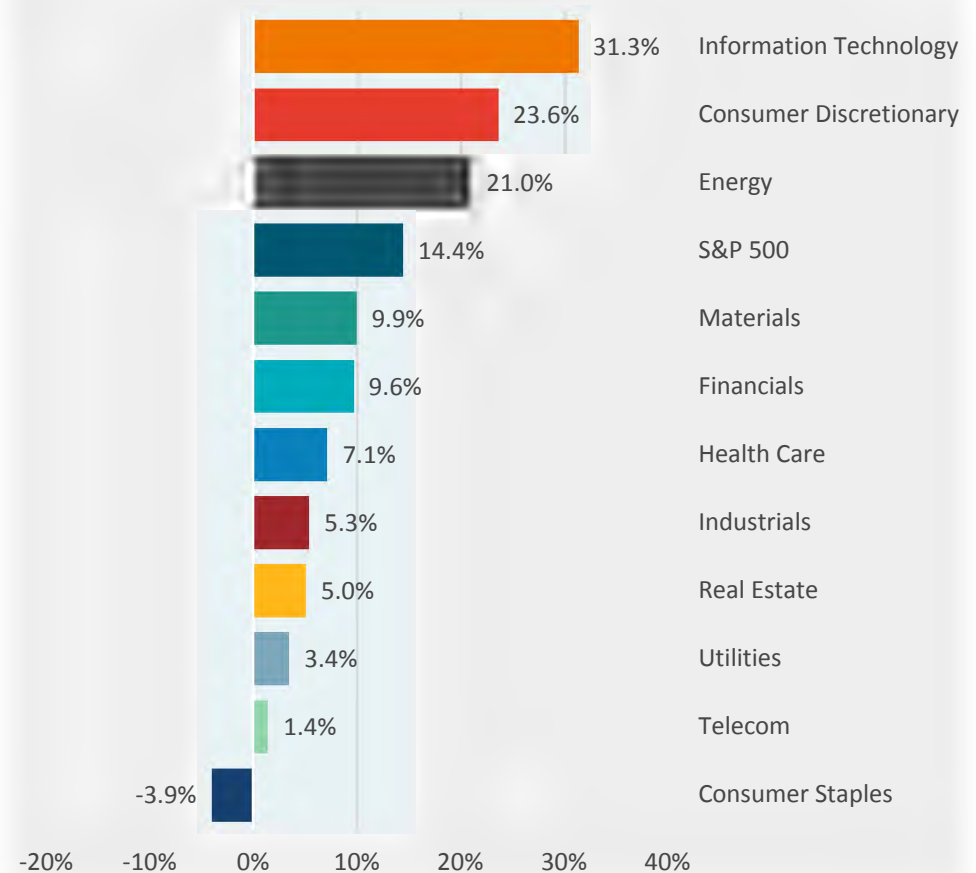
S&P 500 sector returns

2ND QUARTER



Source: Morningstar, as of 6/30/18

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/18

Detailed index returns

DOMESTIC EQUITY

	June	Q2	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	0.6	3.4	2.6	14.4	11.9	13.4	10.2
S&P 500 Equal Weighted	0.9	2.8	1.8	12.0	10.5	12.8	11.6
DJ Industrial Average	(0.5)	1.3	(0.7)	16.3	14.1	13.0	10.8
Russell Top 200	0.6	3.9	3.1	15.4	12.5	13.8	10.2
Russell 1000	0.6	3.6	2.9	14.5	11.6	13.4	10.2
Russell 2000	0.7	7.8	7.7	17.6	11.0	12.5	10.6
Russell 3000	0.7	3.9	3.2	14.8	11.6	13.3	10.2
Russell Mid Cap	0.7	2.8	2.3	12.3	9.6	12.2	10.2
Style Index							
Russell 1000 Growth	1.0	5.8	7.3	22.5	15.0	16.4	11.8
Russell 1000 Value	0.2	1.2	(1.7)	6.8	8.3	10.3	8.5
Russell 2000 Growth	0.8	7.2	9.7	21.9	10.6	13.6	11.2
Russell 2000 Value	0.6	8.3	5.4	13.1	11.2	11.2	9.9

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	(0.5)	0.5	(0.4)	10.7	8.2	9.4	5.8
MSCI ACWI ex US	(1.9)	(2.6)	(3.8)	7.3	5.1	6.0	2.5
MSCI EAFE	(1.2)	(1.2)	(2.7)	6.8	4.9	6.4	2.8
MSCI EM	(4.2)	(8.0)	(6.7)	8.2	5.6	5.0	2.3
MSCI EAFE Small Cap	(1.9)	(1.6)	(1.3)	12.4	10.1	11.3	6.8
Style Index							
MSCI EAFE Growth	(1.2)	0.1	(0.9)	9.4	6.4	7.4	3.5
MSCI EAFE Value	(1.3)	(2.6)	(4.6)	4.3	3.3	5.4	2.2
Regional Index							
MSCI UK	(1.0)	2.9	(1.0)	10.0	3.1	4.9	2.7
MSCI Japan	(2.5)	(2.8)	(2.0)	10.5	6.2	7.4	3.5
MSCI Euro	(0.7)	(2.8)	(3.2)	5.0	5.3	7.1	1.1
MSCI EM Asia	(4.7)	(5.8)	(5.1)	10.1	7.3	8.3	5.6
MSCI EM Latin American	(3.1)	(17.8)	(11.2)	(0.2)	2.0	(2.4)	(3.7)

FIXED INCOME

	June	Q2	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	0.4	0.8	(0.0)	2.1	1.9	1.7	3.0
BBgBarc US Treasury Bills	0.2	0.5	0.8	1.3	0.7	0.4	0.4
BBgBarc US Agg Bond	(0.1)	(0.2)	(1.6)	(0.4)	1.7	2.3	3.7
Duration							
BBgBarc US Treasury 1-3 Yr	0.0	0.2	0.1	0.0	0.4	0.6	1.3
BBgBarc US Treasury Long	0.2	0.3	(3.0)	(0.1)	3.4	4.5	6.1
BBgBarc US Treasury	0.0	0.1	(1.1)	(0.6)	1.0	1.5	3.0
Issuer							
BBgBarc US MBS	0.0	0.2	(1.0)	0.1	1.5	2.3	3.5
BBgBarc US Corp. High Yield	0.4	1.0	0.2	2.6	5.5	5.5	8.2
BBgBarc US Agency Interm	0.0	0.2	(0.2)	(0.1)	0.8	1.1	2.3
BBgBarc US Credit	(0.5)	(0.9)	(3.0)	(0.6)	2.9	3.4	5.2

OTHER

Index							
Bloomberg Commodity	(3.5)	0.4	(0.0)	7.3	(4.5)	(6.4)	(9.0)
Wilshire US REIT	4.5	9.7	1.5	3.9	7.8	8.4	7.8
CS Leveraged Loans	0.2	1.0	2.3	4.5	4.2	4.1	5.0
Alerian MLP	(1.5)	11.8	(0.6)	(4.6)	(5.9)	(4.1)	6.5
Regional Index							
JPM EMBI Global Div	(1.2)	(3.5)	(5.2)	(1.6)	4.6	5.1	6.7
JPM GBI-EM Global Div	(2.9)	(10.4)	(6.4)	(2.3)	2.0	(1.4)	2.6
Hedge Funds							
HFRI Composite	(0.1)	0.8	1.2	5.2	2.6	4.2	3.5
HFRI FOF Composite	(0.2)	0.9	1.2	5.6	2.1	3.6	1.5
Currency (Spot)							
Euro	0.0	(5.1)	(2.8)	2.4	1.6	(2.1)	(3.0)
Pound	(0.8)	(5.9)	(2.4)	1.6	(5.7)	(2.7)	(4.0)
Yen	(1.9)	(4.0)	1.7	1.4	(3.4)	(2.2)	(0.3)

Source: Morningstar, as of 6/30/18

Definitions

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

Notices & disclosures

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Tulare County Employees' Retirement Association

Investment Performance Review

Period Ending: June 30, 2018



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

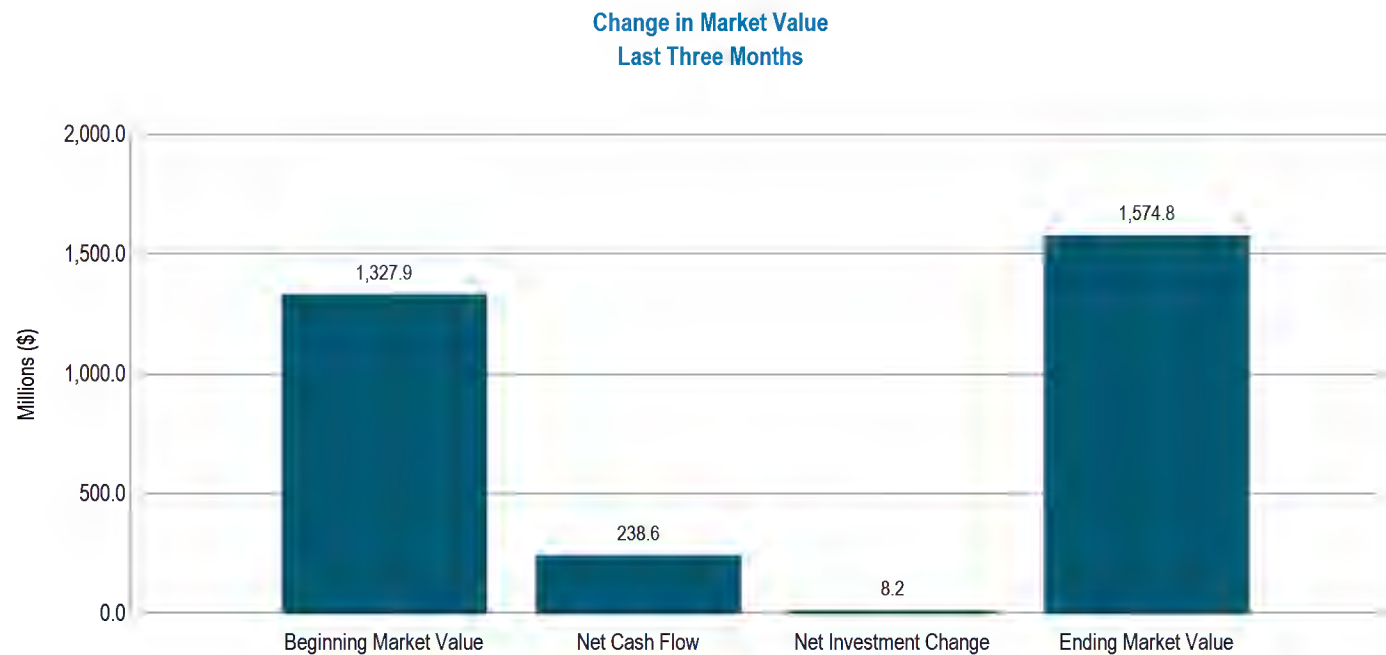
LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

Total Fund Portfolio Reconciliation

Period Ending: June 30, 2018

Fiscal Year-To-Date	
Beginning Market Value	\$1,252,296,144
Net Cash Flow	\$227,168,982
Net Investment Change	\$95,307,325
Ending Market Value	\$1,574,772,451

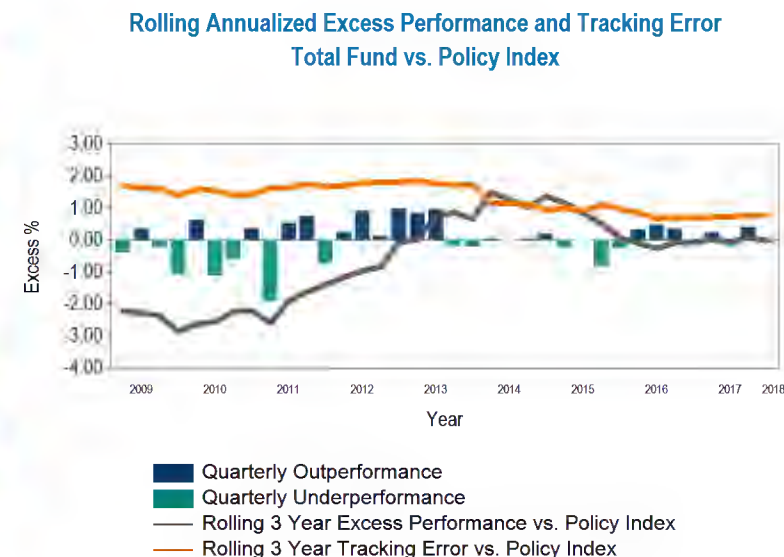
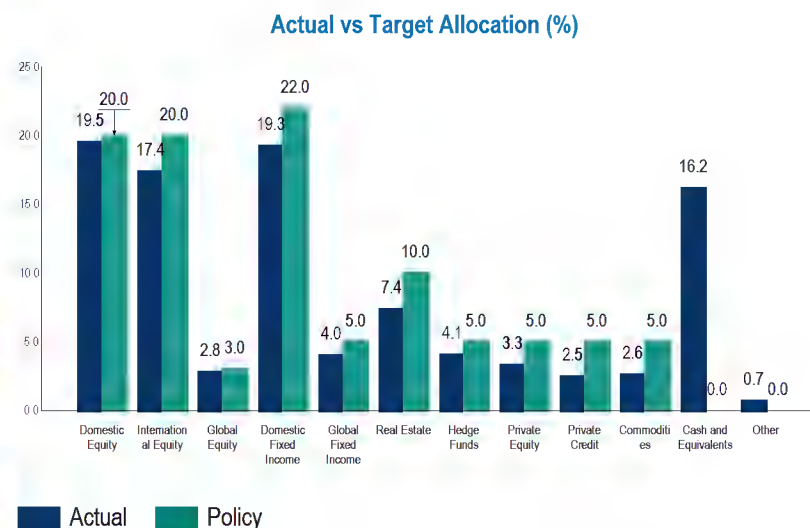


Contributions and withdrawals may include intra-account transfers between managers/funds.

Total Fund Executive Summary (Gross of Fees)

Period Ending: June 30, 2018

	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Fund	0.7	0.7	7.8	7.8	6.1	7.3	5.5	7.0	6.7
Policy Index	0.8	0.4	7.4	7.4	6.1	7.0	5.9	7.3	6.3
InvestorForce Public DB Gross Rank	61	48	56	56	83	71	89	55	23
Total Fund x Clifton	0.7	0.7	7.8	7.8	6.1	7.2	--	--	--
Policy Index	0.8	0.4	7.4	7.4	6.1	7.0	--	--	--
InvestorForce Public DB Gross Rank	63	49	57	57	84	71	--	--	--
Total Domestic Equity	4.1	4.5	17.1	17.1	12.0	14.0	11.2	10.4	9.4
Russell 3000	3.9	3.2	14.8	14.8	11.6	13.3	10.2	9.6	6.8
InvestorForce Public DB US Eq Gross Rank	29	18	14	14	14	5	4	16	1
Total International Equity	-3.7	-4.2	6.4	6.4	5.3	6.3	1.6	7.0	4.7
MSCI ACWI ex USA Gross	-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	8.2	5.3
InvestorForce Public DB ex-US Eq Gross Rank	66	76	79	79	70	76	94	88	90
Total Global Equity	-1.4	-5.6	8.9	8.9	9.6	--	--	--	--
MSCI ACWI Gross	0.7	-0.1	11.3	11.3	8.8	--	--	--	--
InvestorForce Public DB Gbl Eq Gross Rank	90	99	74	74	4	--	--	--	--
Total Fixed Income	-0.4	-1.2	0.2	0.2	2.4	2.8	4.9	4.5	5.2
BBgBarc US Aggregate TR	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.8	4.7
InvestorForce Public DB US Fix Inc Gross Rank	92	64	47	47	35	45	24	37	46
Total Domestic Fixed Income	0.0	-1.2	0.4	0.4	2.5	2.8	--	--	--
BBgBarc US Aggregate TR	-0.2	-1.6	-0.4	-0.4	1.7	2.3	--	--	--
Total Global Fixed Income	-2.4	-0.8	-0.9	-0.9	1.9	2.4	--	--	--
JPM GBI Global TR USD	-3.0	-0.9	1.7	1.7	2.7	1.3	--	--	--

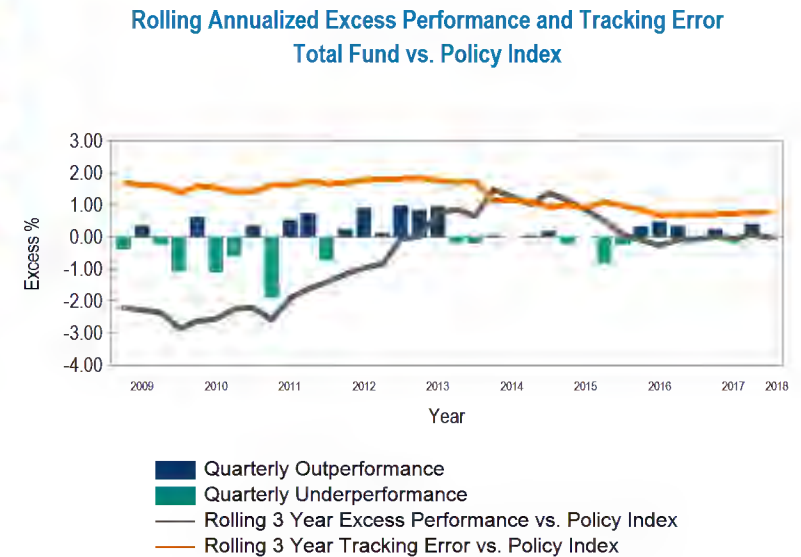
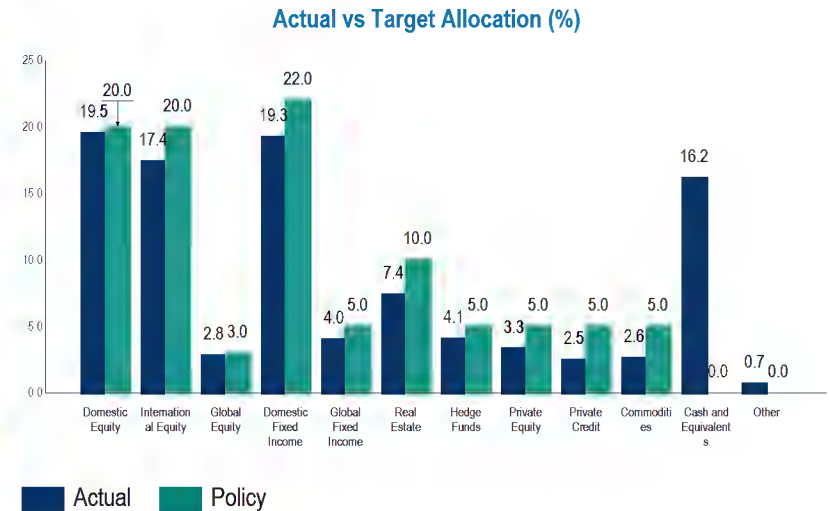


New Policy Index as of 10/1/2016: 20% Russell 3000, 20% MSCI ACWI ex US, 27% BBgBarc US Aggregate, 3% MSCI ACWI, 10% NCREIF Property, 5% Bloomberg Commodity, 5% CPI +500 bps, 5% Russell 3000 +300 bps, 5% BBgBarc High Yield +2% Lagged. All return periods greater than 1-year are rolling annualized returns. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Executive Summary (Gross of Fees)

Period Ending: June 30, 2018

	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Real Assets	2.0	3.4	8.9	8.9	5.1	--	--	--	--
Real Assets Composite Benchmark	1.4	2.4	7.3	7.3	4.0	--	--	--	--
Total Real Estate	2.2	4.3	7.6	7.6	8.5	10.5	3.8	8.2	8.5
NCREIF Property Index	1.8	3.5	7.2	7.2	8.3	9.8	6.2	9.0	--
NCREIF-ODCE	2.1	4.3	8.4	8.4	9.4	11.0	5.3	8.3	8.7
Total Commodities	1.5	1.0	13.2	13.2	-1.9	--	--	--	--
Bloomberg Commodity Index TR USD	0.4	0.0	7.3	7.3	-4.5	--	--	--	--
Commodities Broad Basket MStar MF Rank	34	39	32	32	44	--	--	--	--
Total Alternatives	3.0	5.6	10.5	10.5	2.4	2.1	1.5	--	--
CPI + 5%	2.2	4.7	8.0	8.0	6.9	6.6	6.5	--	--
Total Private Equity	5.8	9.0	17.1	17.1	9.7	12.5	9.7	--	--
Russell 3000 + 3%	4.6	4.7	18.2	18.2	14.9	16.7	13.5	--	--
Total Private Credit	1.1	4.5	7.9	7.9	--	--	--	--	--
BBgBarc High Yield +2% (Lagged)	-0.4	0.6	5.9	5.9	--	--	--	--	--
Total Liquid Alts/HFoF	2.3	3.9	7.1	7.1	2.8	4.1	--	--	--
CPI + 5%	2.2	4.7	8.0	8.0	6.9	6.6	--	--	--
Total Opportunistic	20.9	25.1	28.8	28.8	12.1	14.9	--	--	--

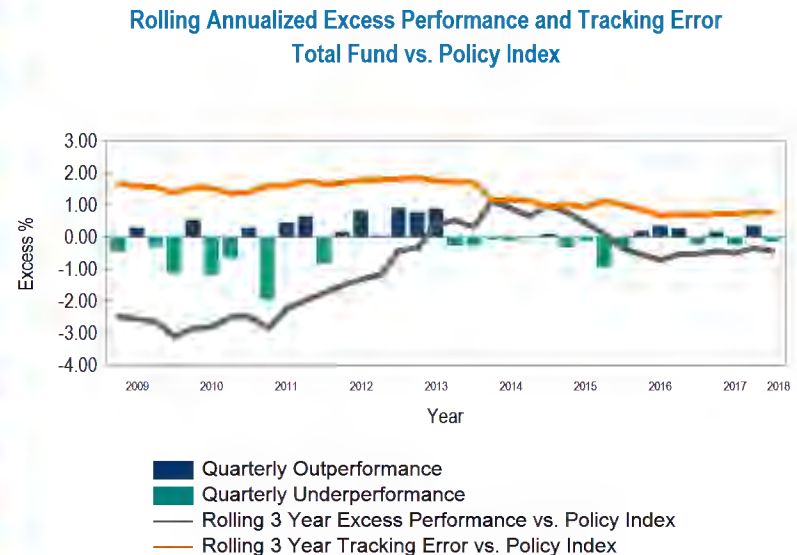
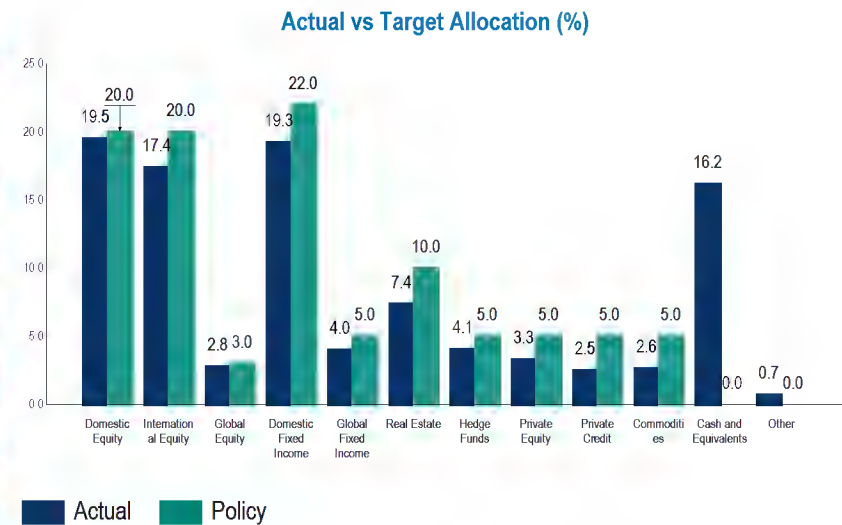


New Policy Index as of 10/1/2016: 20% Russell 3000, 20% MSCI ACWI ex US, 27% BBgBarc US Aggregate, 3% MSCI ACWI, 10% NCREIF Property, 5% Bloomberg Commodity, 5% CPI +500 bps, 5% Russell 3000 +300 bps, 5% BBgBarc High Yield +2% Lagged. All return periods greater than 1-year are rolling annualized returns. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Executive Summary (Net of Fees)

Period Ending: June 30, 2018

	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	20 Yrs
Total Fund	0.7	0.6	7.5	7.5	5.7	6.9	5.1	6.7	6.3
Policy Index	0.8	0.4	7.4	7.4	6.1	7.0	5.9	7.3	6.3
Total Fund x Clifton	0.6	0.6	7.4	7.4	5.7	6.8	--	--	--
Policy Index	0.8	0.4	7.4	7.4	6.1	7.0	--	--	--
Total Domestic Equity	4.0	4.3	16.6	16.6	11.6	13.6	10.7	10.0	9.1
Russell 3000	3.9	3.2	14.8	14.8	11.6	13.3	10.2	9.6	6.8
Total International Equity	-3.7	-4.4	6.0	6.0	4.9	6.0	1.2	6.7	4.3
MSCI ACWI ex USA Gross	-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	8.2	5.3
Total Global Equity	-1.6	-6.0	8.0	8.0	8.6	--	--	--	--
MSCI ACWI Gross	0.7	-0.1	11.3	11.3	8.8	--	--	--	--
Total Fixed Income	-0.5	-1.3	-0.2	-0.2	2.1	2.4	4.6	4.2	4.9
BBgBarc US Aggregate TR	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.8	4.7
Total Domestic Fixed Income	-0.1	-1.4	0.1	0.1	2.2	2.5	--	--	--
BBgBarc US Aggregate TR	-0.2	-1.6	-0.4	-0.4	1.7	2.3	--	--	--
Total Global Fixed Income	-2.6	-1.0	-1.4	-1.4	1.3	1.9	--	--	--
JPM GBI Global TR USD	-3.0	-0.9	1.7	1.7	2.7	1.3	--	--	--
Total Real Assets	2.0	3.4	8.9	8.9	4.6	--	--	--	--
Real Assets Composite Benchmark	1.4	2.4	7.3	7.3	4.0	--	--	--	--
Total Real Estate	2.2	4.3	7.6	7.6	8.0	10.0	3.5	7.4	7.6
NCREIF Property Index	1.8	3.5	7.2	7.2	8.3	9.8	6.2	9.0	--
NCREIF-ODCE	2.1	4.3	8.4	8.4	9.4	11.0	5.3	8.3	8.7
Total Commodities	1.5	1.0	13.2	13.2	-2.3	--	--	--	--
Bloomberg Commodity Index TR USD	0.4	0.0	7.3	7.3	-4.5	--	--	--	--
Total Alternatives	3.0	5.6	10.5	10.5	1.9	1.5	1.1	--	--
CPI + 5%	2.2	4.7	8.0	8.0	6.9	6.6	6.5	--	--
Total Private Equity	5.8	9.0	17.1	17.1	8.8	11.5	9.2	--	--
Russell 3000 + 3%	4.6	4.7	18.2	18.2	14.9	16.7	13.5	--	--
Total Private Credit	1.1	4.5	7.9	7.9	--	--	--	--	--
BBgBarc High Yield +2% (Lagged)	-0.4	0.6	5.9	5.9	--	--	--	--	--
Total Liquid Alts/HFoF	2.3	3.9	7.1	7.1	2.4	3.6	--	--	--
CPI + 5%	2.2	4.7	8.0	8.0	6.9	6.6	--	--	--
Total Opportunistic	20.9	25.1	28.8	28.8	11.2	13.8	--	--	--

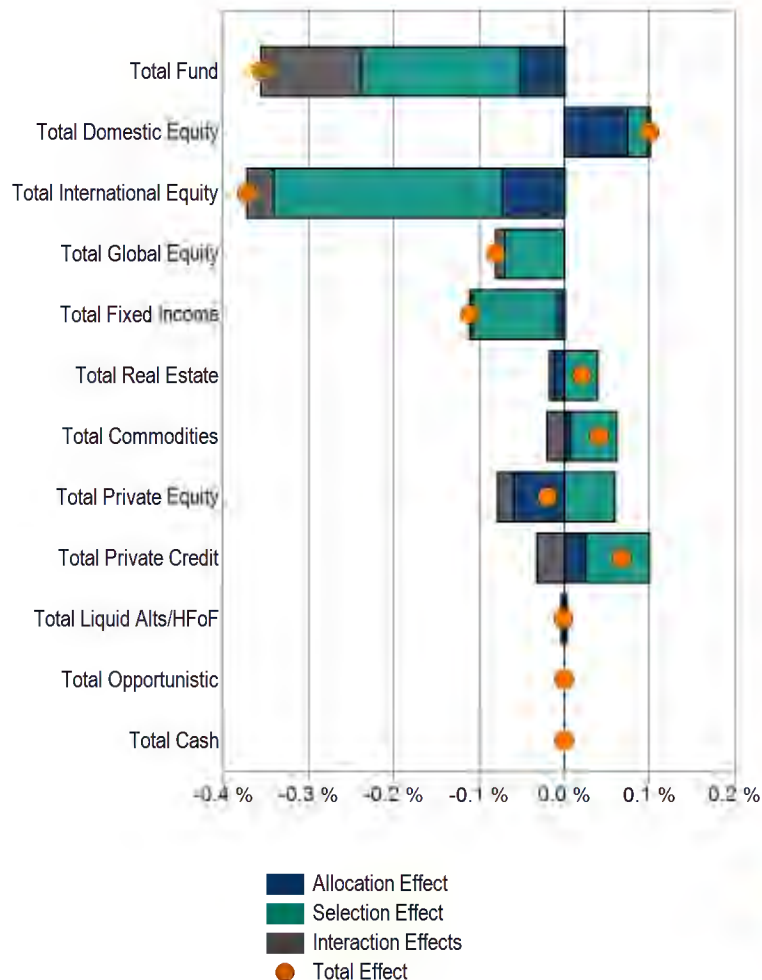


New Policy Index as of 10/1/2016: 20% Russell 3000, 20% MSCI ACWI ex US, 27% BBgBarc US Aggregate, 3% MSCI ACWI, 10% NCREIF Property, 5% Bloomberg Commodity, 5% CPI +500 bps, 5% Russell 3000 +300 bps, 5% BBgBarc High Yield +2% Lagged. All return periods greater than 1-year are rolling annualized returns.

Total Fund Attribution

Period Ending: June 30, 2018

Attribution Effects
3 Months Ending June 30, 2018



Performance Attribution

	Last 3 Mo.	YTD
Wtd. Actual Return	0.5%	0.5%
Wtd. Index Return *	0.8%	0.4%
Excess Return	-0.3%	0.1%
Selection Effect	-0.2%	0.4%
Allocation Effect	-0.1%	-0.2%
Interaction Effect	-0.1%	-0.2%

*Calculated from policy benchmark returns and policy weightings of each component of the policy benchmark.

Attribution Summary
3 Months Ending June 30, 2018

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Total Domestic Equity	4.0%	3.9%	0.1%	0.0%	0.1%	0.0%	0.1%
Total International Equity	-3.7%	-2.4%	-1.3%	-0.3%	-0.1%	0.0%	-0.4%
Total Global Equity	-1.6%	0.7%	-2.3%	-0.1%	0.0%	0.0%	-0.1%
Total Fixed Income	-0.5%	-0.2%	-0.4%	-0.1%	0.0%	0.0%	-0.1%
Total Real Estate	2.2%	1.8%	0.4%	0.0%	0.0%	0.0%	0.0%
Total Commodities	1.5%	0.4%	1.1%	0.1%	0.0%	0.0%	0.0%
Total Private Equity	5.8%	4.6%	1.2%	0.1%	-0.1%	0.0%	0.0%
Total Private Credit	1.1%	-0.4%	1.5%	0.1%	0.0%	0.0%	0.0%
Total Liquid Alts/HFoF	2.3%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Opportunistic	--	--	--	--	--	--	--
Total Cash	--	--	--	--	--	--	--
Total	0.5%	0.8%	-0.3%	-0.2%	-0.1%	-0.1%	-0.4%

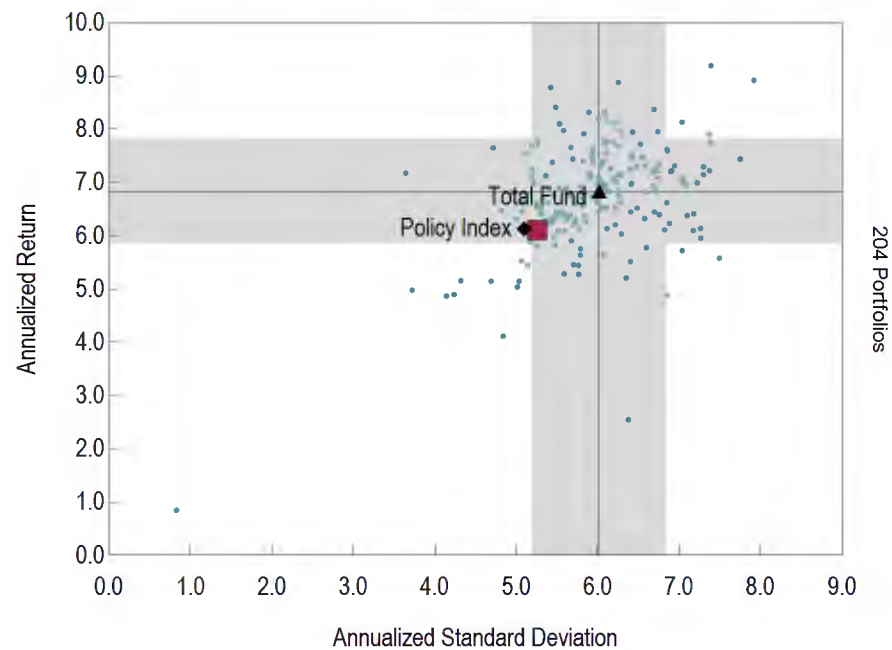
Weighted returns shown in attribution analysis may differ from actual returns. Wtd. Actual Return is the sum of the products of each group's return and its respective weight at the beginning of the period.

Total Fund Risk Analysis - 3 Years (Gross of Fees)

Period Ending: June 30, 2018

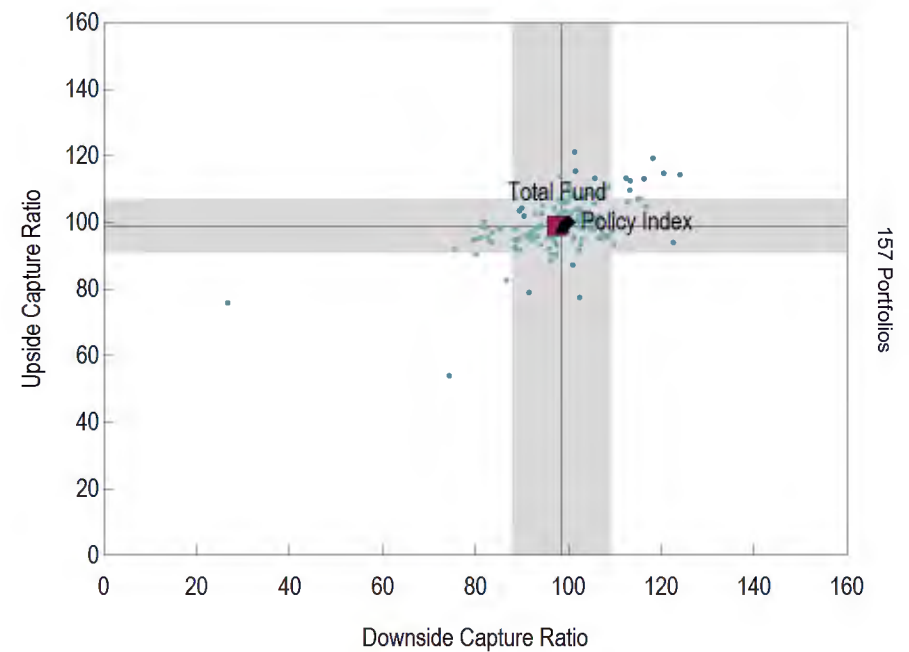
	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	6.10%	5.26%	-0.16%	1.02	0.75%	0.98	1.04	-0.04	98.94%	97.58%

Risk vs. Return



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

Up Markets vs. Down Markets



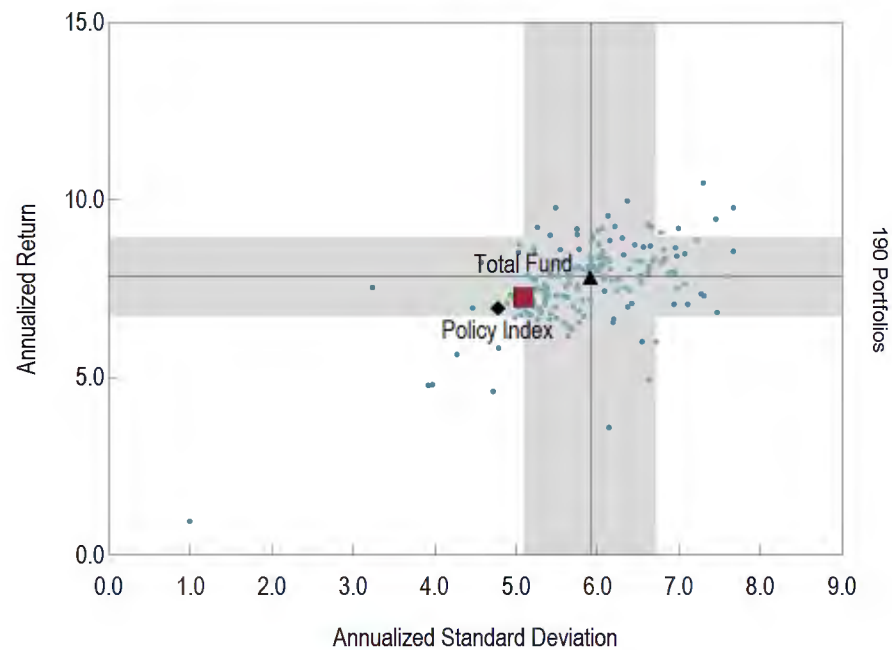
- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvestorForce Public DB Gross

Total Fund Risk Analysis - 5 Years (Gross of Fees)

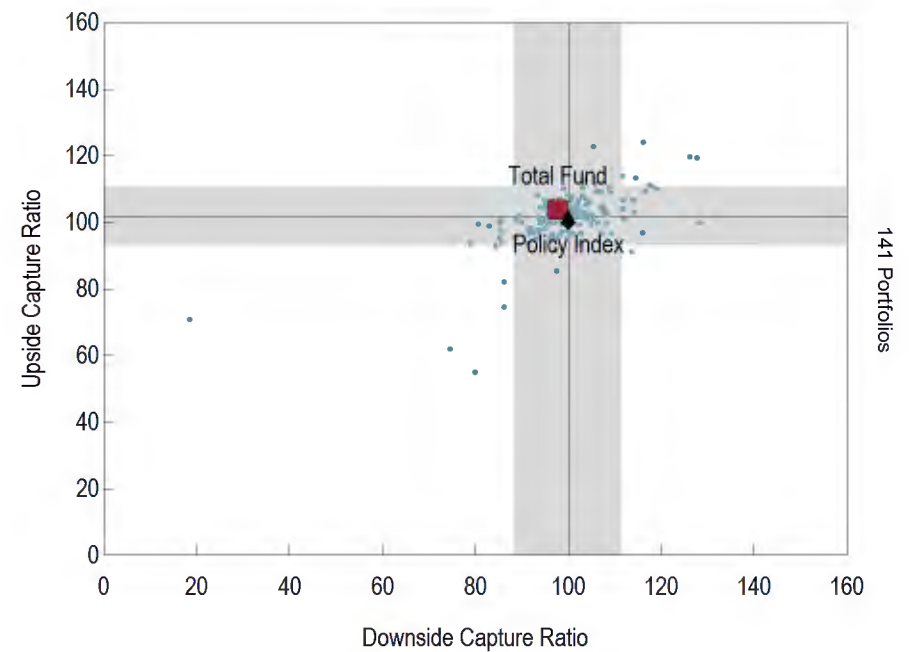
Period Ending: June 30, 2018

	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	7.27%	5.09%	-0.06%	1.05	0.82%	0.98	1.35	0.38	103.77%	97.67%

Risk vs. Return



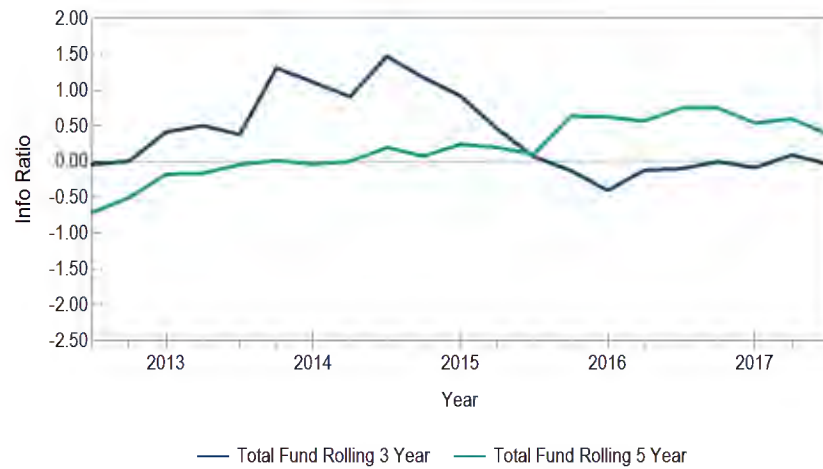
Up Markets vs. Down Markets



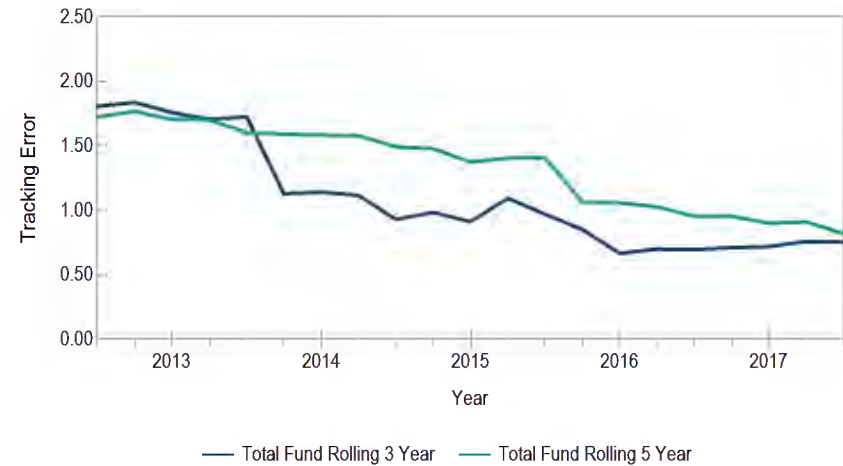
Total Fund Rolling Risk Statistics (Gross of Fees)

Period Ending: June 30, 2018

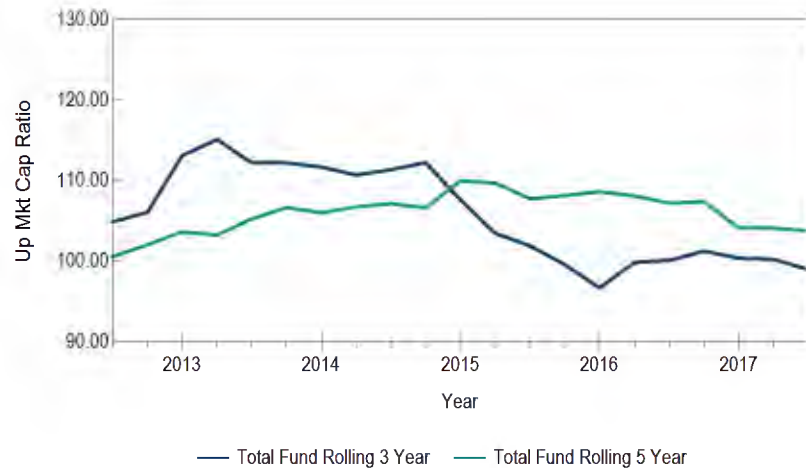
Rolling Information Ratio



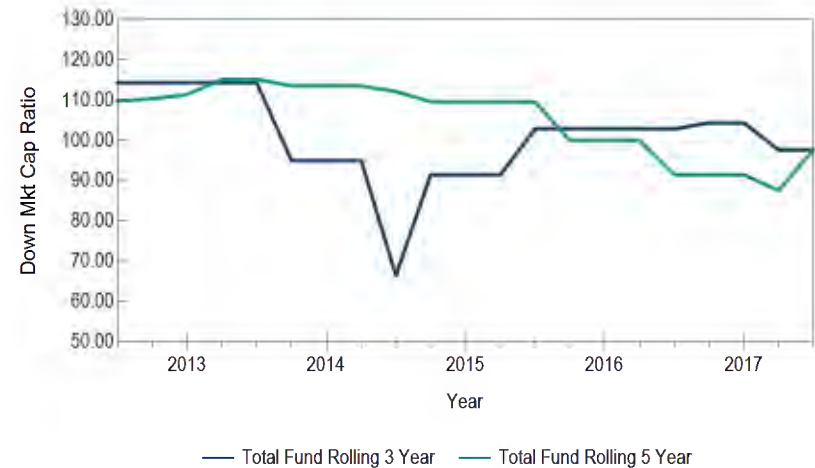
Rolling Tracking Error



Rolling Up Market Capture Ratio (%)



Rolling Down Market Capture Ratio (%)



Total Fund Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Fund	1,574,772,451	100.0	0.7	0.7	7.8	7.8	6.1	7.3	5.5	14.3	7.6	-1.2	4.2	15.8
<i>Policy Index</i>			0.8	0.4	7.4	7.4	6.1	7.0	5.9	14.0	8.0	-1.1	4.6	12.6
<i>InvestorForce Public DB Gross Rank</i>			61	48	56	56	83	71	89	71	53	80	83	49
Total Fund x Clifton	1,567,074,075	99.5	0.7	0.7	7.8	7.8	6.1	7.2	--	14.2	7.6	-1.1	4.1	15.8
<i>Policy Index</i>			0.8	0.4	7.4	7.4	6.1	7.0	--	14.0	8.0	-1.1	4.6	12.6
<i>InvestorForce Public DB Gross Rank</i>			63	49	57	57	84	71	--	72	53	80	87	48
Total Domestic Equity	307,720,312	19.5	4.1	4.5	17.1	17.1	12.0	14.0	11.2	22.3	11.5	1.6	12.4	35.9
<i>Russell 3000</i>			3.9	3.2	14.8	14.8	11.6	13.3	10.2	21.1	12.7	0.5	12.6	33.6
<i>InvestorForce Public DB US Eq Gross Rank</i>			29	18	14	14	14	5	4	16	77	10	17	24
SSGA S&P 500 Flagship Fund	56,464,204	3.6	3.4	2.6	14.4	14.4	12.0	13.5	--	21.9	12.0	1.5	13.7	32.4
<i>S&P 500</i>			3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
<i>eV US Large Cap Core Equity Gross Rank</i>			33	37	44	44	26	39	--	52	31	40	42	58
QMA Large Cap Core	57,172,076	3.6	3.8	2.4	16.4	16.4	12.3	14.3	--	22.5	12.5	2.1	15.6	34.3
<i>S&P 500</i>			3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
<i>eV US Large Cap Core Equity Gross Rank</i>			22	41	24	24	21	18	--	42	25	31	20	37
Ivy Large Cap Growth	62,241,211	4.0	6.1	10.7	27.0	27.0	14.5	17.4	--	30.2	2.1	7.6	12.8	37.3
<i>Russell 1000 Growth</i>			5.8	7.3	22.5	22.5	15.0	16.4	--	30.2	7.1	5.7	13.0	33.5
<i>eV US Large Cap Growth Equity Gross Rank</i>			34	26	20	20	37	25	--	42	72	26	40	25
Boston Partners Large Cap Value	53,638,095	3.4	-0.1	-1.6	10.5	10.5	9.0	11.1	10.6	20.1	14.7	-3.9	11.8	37.0
<i>Russell 1000 Value</i>			1.2	-1.7	6.8	6.8	8.3	10.3	8.5	13.7	17.3	-3.8	13.5	32.5
<i>eV US Large Cap Value Equity Gross Rank</i>			91	70	46	46	58	55	20	22	54	65	58	26
SSGA Russell Small Cap Completeness Index	24,784,512	1.6	5.9	6.1	16.8	16.8	10.4	12.7	--	18.2	16.5	-3.5	7.4	--
<i>Russell Small Cap Completeness</i>			5.9	6.1	16.9	16.9	10.5	12.8	--	18.3	16.6	-3.4	7.4	--
<i>eV US Small Cap Core Equity Gross Rank</i>			64	55	47	47	66	66	--	23	84	68	37	--
William Blair SMID Cap Growth	29,185,074	1.9	5.7	11.6	24.7	24.7	15.0	17.0	14.6	30.4	8.2	6.1	9.8	43.1
<i>Russell 2500 Growth</i>			5.5	8.0	21.5	21.5	10.9	13.9	11.4	24.5	9.7	-0.2	7.1	40.7
<i>eV US Mid Cap Growth Equity Gross Rank</i>			25	19	17	17	8	4	4	16	22	7	33	11
Lee Munder Small Value	24,235,141	1.5	7.5	3.3	9.9	9.9	11.3	11.9	--	8.6	28.4	0.4	5.1	33.1
<i>Russell 2000 Value</i>			8.3	5.4	13.1	13.1	11.2	11.2	--	7.8	31.7	-7.5	4.2	34.5
<i>eV US Small Cap Value Equity Gross Rank</i>			24	58	81	81	40	56	--	68	38	9	60	85

BlackRock Commodities liquidated 12/24/13. Gresham MTAP Commodities funded 12/31/13. Wellington Commodity funded 1/3/14. Skellig DST Water Fund funded 10/28/14. Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US). MacKay Shields and Doubleline funded 12/1/15. UBP liquidated 12/31/2015. Titan Advisors funded 2/1/2016. RREEF liquidated 1Q 2018. Fidelity International Growth liquidated to fund SGA Global Growth in 2Q18. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total International Equity	274,537,679	17.4	-3.7	-4.2	6.4	6.4	5.3	6.3	1.6	26.9	6.2	-5.9	-4.8	18.5
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8
InvestorForce Public DB ex-US Eq Gross Rank			66	76	79	79	70	76	94	80	13	85	83	44
SSGA MSCI ACWI Ex US Index Fund	94,636,369	6.0	-2.5	-3.6	7.6	7.6	5.3	6.3	--	27.6	4.8	-5.5	-3.6	15.5
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
eV All EAFE Equity Gross Rank			76	75	57	57	70	89	--	49	17	96	49	90
PIMCO RAE Fundamental Global Ex US Fund	93,952,910	6.0	-5.0	-5.4	6.6	6.6	5.8	6.9	--	26.7	13.5	-10.9	-5.7	24.5
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
eV All EAFE Equity Gross Rank			98	93	69	69	60	73	--	53	1	99	79	51
SGA Global Growth	85,935,874	5.5	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI ex USA Gross			--	--	--	--	--	--	--	--	--	--	--	--
eV ACWI ex-US Core Equity Gross Rank			--	--	--	--	--	--	--	--	--	--	--	--
Total Global Equity	44,475,622	2.8	-1.4	-5.6	8.9	8.9	9.6	--	--	33.7	16.1	-11.5	--	--
MSCI ACWI Gross			0.7	-0.1	11.3	11.3	8.8	--	--	24.6	8.5	-1.8	--	--
InvestorForce Public DB Gbl Eq Gross Rank			90	99	74	74	4	--	--	1	2	99	--	--
Skellig DST Water Fund	44,475,622	2.8	-1.4	-5.6	8.9	8.9	9.6	--	--	33.7	16.1	-11.5	--	--
MSCI ACWI Gross			0.7	-0.1	11.3	11.3	8.8	--	--	24.6	8.5	-1.8	--	--
eV Global All Cap Equity Gross Rank			87	98	67	67	37	--	--	9	6	96	--	--
Total Fixed Income	366,944,163	23.3	-0.4	-1.2	0.2	0.2	2.4	2.8	4.9	4.3	5.5	-0.8	4.6	-0.9
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
InvestorForce Public DB US Fix Inc Gross Rank			92	64	47	47	35	45	24	50	37	77	69	49
Total Domestic Fixed Income														
BlackRock Fixed Income	132,263,390	8.4	-0.1	-1.6	-0.3	-0.3	2.0	2.7	4.2	3.9	3.1	1.1	6.2	-1.5
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
eV All US Fixed Inc Gross Rank			77	80	82	82	58	54	51	54	53	39	29	75
Doubleline Core Plus	70,096,543	4.5	0.0	-0.9	0.5	0.5	--	--	--	4.2	4.8	--	--	--
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
eV US Core Plus Fixed Inc Gross Rank			24	17	41	41	--	--	--	86	52	--	--	--
MacKay Shields Core Plus	69,326,850	4.4	-0.2	-1.6	0.2	0.2	--	--	--	5.0	5.1	--	--	--
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
eV US Core Plus Fixed Inc Gross Rank			47	64	64	64	--	--	--	52	46	--	--	--

BlackRock Commodities liquidated 12/24/13. Gresham MTAP Commodities funded 12/31/13. Wellington Commodity funded 1/3/14. Skellig DST Water Fund funded 10/28/14. Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US). MacKay Shields and Doubleline funded 12/1/15. UBP liquidated 12/31/2015. Titan Advisors funded 2/1/2016. RREEF liquidated 1Q 2018. Fidelity International Growth liquidated to fund SGA Global Growth in 2Q18. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Shenkman High Yield	20,520,048	1.3	0.9	0.9	3.7	3.7	4.6	5.1	--	7.2	12.3	-2.4	2.5	6.3
ICE BofAML US High Yield TR			1.0	0.1	2.5	2.5	5.5	5.5	--	7.5	17.5	-4.6	2.5	7.4
eV US High Yield Fixed Inc Gross Rank			36	25	23	23	71	65	--	57	65	51	52	81
SSGA TIPS	11,164,016	0.7	0.8	0.0	2.1	2.1	1.9	1.7	--	3.0	4.7	-1.4	3.6	-8.6
BBgBarc US TIPS TR			0.8	0.0	2.1	2.1	1.9	1.7	--	3.0	4.7	-1.4	3.6	-8.6
eV US TIPS / Inflation Fixed Inc Gross Rank			39	74	55	55	67	68	--	69	50	63	44	77
Total Global Fixed Income														
Franklin Templeton Global Bond Plus	63,573,316	4.0	-2.4	-0.8	-0.9	-0.9	1.7	2.4	--	3.0	6.8	-3.5	2.4	3.0
JPM GBI Global TR USD			-3.0	-0.9	1.7	1.7	2.7	1.3	--	6.8	1.6	-2.6	0.7	-4.5
eV Global Fixed Inc Unhedged Gross Rank			46	29	94	94	86	53	--	96	24	67	50	23
Total Real Assets	158,120,348	10.0	2.0	3.4	8.9	8.9	5.1	--	--	5.0	10.4	0.4	--	--
Real Assets Composite Benchmark			1.4	2.4	7.3	7.3	4.0	--	--	5.2	9.4	-0.7	--	--
Total Real Estate	116,408,566	7.4	2.2	4.3	7.6	7.6	8.5	10.5	3.8	4.3	9.0	16.0	13.1	11.5
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
NCREIF-ODCE			2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
RREEF America II	111,371,982	7.1	2.1	4.2	7.4	7.4	8.6	11.1	5.3	4.4	9.3	16.7	13.0	15.5
NCREIF-ODCE			2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
TA Associates Realty	5,036,584	0.3	3.3	5.5	10.2	10.2	7.2	9.6	2.3	5.2	4.6	16.7	15.1	5.2
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
NCREIF-ODCE			2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9

BlackRock Commodities liquidated 12/24/13. Gresham MTAP Commodities funded 12/31/13. Wellington Commodity funded 1/3/14. Skellig DST Water Fund funded 10/28/14. Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US). MacKay Shields and Doubleline funded 12/1/15. UBP liquidated 12/31/2015. Titan Advisors funded 2/1/2016. RREEF liquidated 1Q 2018. Fidelity International Growth liquidated to fund SGA Global Growth in 2Q18. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Commodities	41,711,782	2.6	1.5	1.0	13.2	13.2	-1.9	--	--	7.5	14.5	-26.3	--	--
Bloomberg Commodity Index TR USD			0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	--	--
Commodities Broad Basket MStar MF Rank			34	39	32	32	44	--	--	16	27	80	--	--
Gresham MTAP Commodity Builder	20,323,010	1.3	1.6	1.6	12.1	12.1	-3.0	--	--	5.9	12.3	-25.4	-16.1	--
Bloomberg Commodity Index TR USD			0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	-17.0	--
Commodities Broad Basket MStar MF Rank			33	31	35	35	47	--	--	28	53	71	34	--
Wellington Commodity	21,388,772	1.4	1.3	0.5	14.2	14.2	-1.2	--	--	9.0	15.8	-25.7	--	--
Bloomberg Commodity Index TR USD			0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	--	--
Commodities Broad Basket MStar MF Rank			39	40	22	22	34	--	--	9	13	73	--	--
Total Liquid Alts/HFoF	64,132,492	4.1	2.3	3.9	7.1	7.1	2.8	4.1	--	5.4	0.3	0.7	5.4	11.0
CPI + 5%			2.2	4.7	8.0	8.0	6.9	6.6	--	7.2	7.2	5.8	5.8	6.6
Aetos Capital	31,943,980	2.0	1.1	1.1	3.5	3.5	3.3	4.4	3.6	6.8	2.6	1.2	5.2	11.4
ICE BofAML 90 DAY T-BILLS + 400 bps			1.2	2.3	4.4	4.4	3.7	3.6	4.0	3.9	3.3	3.1	3.5	4.1
Titan Advisors	32,188,513	2.0	3.5	6.8	11.0	11.0	--	--	--	4.0	0.6	--	--	--
ICE BofAML 90 DAY T-BILLS + 400 bps			1.2	2.3	4.4	4.4	--	--	--	3.9	3.3	--	--	--

BlackRock Commodities liquidated 12/24/13. Gresham MTAP Commodities funded 12/31/13. Wellington Commodity funded 1/3/14. Skellig DST Water Fund funded 10/28/14. Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US). MacKay Shields and Doubleline funded 12/1/15. UBP liquidated 12/31/2015. Titan Advisors funded 2/1/2016. RREEF liquidated 1Q 2018. Fidelity International Growth liquidated to fund SGA Global Growth in 2Q18. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Fund Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Fund	1,574,772,451	100.0	0.7	0.6	7.5	7.5	5.7	6.9	5.1	13.9	7.1	-1.6	3.8	15.4
Policy Index			0.8	0.4	7.4	7.4	6.1	7.0	5.9	14.0	8.0	-1.1	4.6	12.6
Total Fund x Clifton	1,567,074,075	99.5	0.6	0.6	7.4	7.4	5.7	6.8	--	13.8	7.0	-1.6	3.7	15.5
Policy Index			0.8	0.4	7.4	7.4	6.1	7.0	--	14.0	8.0	-1.1	4.6	12.6
Total Domestic Equity	307,720,312	19.5	4.0	4.3	16.6	16.6	11.6	13.6	10.7	21.9	11.1	1.2	12.0	35.3
Russell 3000			3.9	3.2	14.8	14.8	11.6	13.3	10.2	21.1	12.7	0.5	12.6	33.6
SSGA S&P 500 Flagship Fund	56,464,204	3.6	3.4	2.6	14.4	14.4	12.0	13.4	--	21.8	12.0	1.4	13.7	32.4
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QMA Large Cap Core	57,172,076	3.6	3.7	2.2	16.0	16.0	11.9	13.9	--	22.1	12.1	1.8	15.2	33.9
S&P 500			3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
Ivy Large Cap Growth	62,241,211	4.0	6.0	10.5	26.3	26.3	13.9	16.8	--	29.5	1.6	7.1	12.3	36.6
Russell 1000 Growth			5.8	7.3	22.5	22.5	15.0	16.4	--	30.2	7.1	5.7	13.0	33.5
Boston Partners Large Cap Value	53,638,095	3.4	-0.2	-1.8	10.0	10.0	8.5	10.6	10.2	19.6	14.2	-4.4	11.4	36.4
Russell 1000 Value			1.2	-1.7	6.8	6.8	8.3	10.3	8.5	13.7	17.3	-3.8	13.5	32.5
SSGA Russell Small Cap Completeness Index	24,784,512	1.6	5.9	6.0	16.7	16.7	10.4	12.6	--	18.1	16.5	-3.5	7.3	--
Russell Small Cap Completeness			5.9	6.1	16.9	16.9	10.5	12.8	--	18.3	16.6	-3.4	7.4	--
William Blair SMID Cap Growth	29,185,074	1.9	5.5	11.2	23.6	23.6	14.0	16.0	13.6	29.3	7.2	5.2	8.8	42.0
Russell 2500 Growth			5.5	8.0	21.5	21.5	10.9	13.9	11.4	24.5	9.7	-0.2	7.1	40.7
Lee Munder Small Value	24,235,141	1.5	7.3	2.9	8.9	8.9	10.3	10.9	--	7.7	27.3	-0.5	4.1	31.8
Russell 2000 Value			8.3	5.4	13.1	13.1	11.2	11.2	--	7.8	31.7	-7.5	4.2	34.5
Total International Equity	274,537,679	17.4	-3.7	-4.4	6.0	6.0	4.9	6.0	1.2	26.5	5.9	-6.2	-5.0	18.3
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8
SSGA MSCI ACWI Ex US Index Fund	94,636,369	6.0	-2.5	-3.6	7.5	7.5	5.3	6.2	--	27.5	4.7	-5.5	-3.7	15.5
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
PIMCO RAE Fundamental Global Ex US Fund	93,952,910	6.0	-5.1	-5.6	6.1	6.1	5.3	6.4	--	26.0	13.0	-11.4	-5.9	23.7
MSCI ACWI ex USA Gross			-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
SGA Global Growth	85,935,874	5.5	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI ex USA Gross			--	--	--	--	--	--	--	--	--	--	--	--
Total Global Equity	44,475,622	2.8	-1.6	-6.0	8.0	8.0	8.6	--	--	32.6	15.1	-12.3	--	--
MSCI ACWI Gross			0.7	-0.1	11.3	11.3	8.8	--	--	24.6	8.5	-1.8	--	--
Skellig DST Water Fund	44,475,622	2.8	-1.6	-6.0	8.0	8.0	8.6	--	--	32.6	15.1	-12.3	--	--
MSCI ACWI Gross			0.7	-0.1	11.3	11.3	8.8	--	--	24.6	8.5	-1.8	--	--

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Fixed Income	366,944,163	23.3	-0.5	-1.3	-0.2	-0.2	2.1	2.4	4.6	3.9	5.1	-1.1	4.3	-1.2
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
Total Domestic Fixed Income														
BlackRock Fixed Income	132,263,390	8.4	-0.2	-1.7	-0.6	-0.6	1.8	2.4	4.0	3.6	2.9	0.8	6.0	-1.8
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
Doubleline Core Plus	70,096,543	4.5	-0.1	-1.1	0.2	0.2	--	--	--	3.9	4.6	--	--	--
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
MacKay Shields Core Plus	69,326,850	4.4	-0.3	-1.8	-0.2	-0.2	--	--	--	4.5	4.7	--	--	--
BBgBarc US Aggregate TR			-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
Shenkman High Yield	20,520,048	1.3	0.8	0.6	3.1	3.1	4.1	4.6	--	6.7	11.7	-2.9	2.0	5.8
ICE BofAML US High Yield TR			1.0	0.1	2.5	2.5	5.5	5.5	--	7.5	17.5	-4.6	2.5	7.4
SSGA TIPS	11,164,016	0.7	0.8	-0.1	2.0	2.0	1.9	1.6	--	3.0	4.6	-1.5	3.6	-8.6
BBgBarc US TIPS TR			0.8	0.0	2.1	2.1	1.9	1.7	--	3.0	4.7	-1.4	3.6	-8.6
Total Global Fixed Income														
Franklin Templeton Global Bond Plus	63,573,316	4.0	-2.6	-1.0	-1.4	-1.4	1.1	1.8	--	2.4	6.1	-4.1	1.9	2.5
JPM GBI Global TR USD			-3.0	-0.9	1.7	1.7	2.7	1.3	--	6.8	1.6	-2.6	0.7	-4.5
Total Real Assets	158,120,348	10.0	2.0	3.4	8.9	8.9	4.6	--	--	5.0	9.5	-0.4	--	--
Real Assets Composite Benchmark			1.4	2.4	7.3	7.3	4.0	--	--	5.2	9.4	-0.7	--	--
Total Real Estate	116,408,566	7.4	2.2	4.3	7.6	7.6	8.0	10.0	3.5	4.3	8.0	15.1	12.5	11.5
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
NCREIF-ODCE			2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
RREEF America II	111,371,982	7.1	2.1	4.2	7.4	7.4	8.1	10.5	4.8	4.4	8.2	15.7	12.0	15.0
NCREIF-ODCE			2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
TA Associates Realty	5,036,584	0.3	3.3	5.5	10.2	10.2	6.7	9.1	1.1	5.2	3.7	15.4	14.6	5.1
NCREIF Property Index			1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
NCREIF-ODCE			2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Commodities	41,711,782	2.6	1.5	1.0	13.2	13.2	-2.3	--	--	7.5	13.6	-26.8	--	--
<i>Bloomberg Commodity Index TR USD</i>			0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	--	--
Gresham MTAP Commodity Builder	20,323,010	1.3	1.6	1.6	12.1	12.1	-3.3	--	--	5.9	11.5	-25.9	-16.8	--
<i>Bloomberg Commodity Index TR USD</i>			0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	-17.0	--
Wellington Commodity	21,388,772	1.4	1.3	0.5	14.2	14.2	-1.6	--	--	9.0	14.9	-26.3	--	--
<i>Bloomberg Commodity Index TR USD</i>			0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	--	--
Total Liquid Alts/HFoF	64,132,492	4.1	2.3	3.9	7.1	7.1	2.4	3.6	--	5.4	-0.5	0.0	4.6	9.9
CPI + 5%			2.2	4.7	8.0	8.0	6.9	6.6	--	7.2	7.2	5.8	5.8	6.6
Aetos Capital	31,943,980	2.0	1.1	1.1	3.5	3.5	2.9	3.9	3.3	6.8	1.8	0.5	4.5	10.4
<i>ICE BofAML 90 DAY T-BILLS + 400 bps</i>			1.2	2.3	4.4	4.4	3.7	3.6	4.0	3.9	3.3	3.1	3.5	4.1
Titan Advisors	32,188,513	2.0	3.5	6.8	11.0	11.0	--	--	--	4.0	-0.1	--	--	--
<i>ICE BofAML 90 DAY T-BILLS + 400 bps</i>			1.2	2.3	4.4	4.4	--	--	--	3.9	3.3	--	--	--

Total Fund
Performance Analysis - 5 Years (Gross of Fees)

Period Ending: June 30, 2018

	Anlzd Ret	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
SSGA S&P 500 Flagship Fund	13.47%	7.02%	0.06%	1.00	0.03%	1.00	1.86	1.43	100.29%	99.19%
QMA Large Cap Core	14.31%	7.43%	0.39%	1.04	1.47%	0.96	1.87	0.61	108.45%	103.73%
Ivy Large Cap Growth	17.40%	9.28%	-1.45%	1.15	3.42%	0.88	1.83	0.30	108.41%	101.97%
Boston Partners Large Cap Value	11.11%	8.33%	0.70%	1.01	2.83%	0.88	1.29	0.27	102.72%	83.15%
SSGA Russell Small Cap Completeness Index	12.72%	9.45%	-0.02%	1.00	0.05%	1.00	1.30	-0.77	99.59%	99.80%
William Blair SMID Cap Growth	17.05%	8.75%	5.97%	0.80	3.83%	0.86	1.90	0.83	111.62%	62.68%
Lee Munder Small Value	11.90%	10.13%	2.80%	0.81	3.49%	0.93	1.14	0.21	93.74%	75.04%
SSGA MSCI ACWI Ex US Index Fund	6.26%	10.56%	-0.22%	1.00	0.06%	1.00	0.56	-3.50	98.74%	101.42%
PIMCO RAE Fundamental Global Ex US Fund	6.87%	12.24%	-0.26%	1.10	4.00%	0.90	0.53	0.10	101.40%	96.16%
BlackRock Fixed Income	2.67%	2.92%	0.41%	0.99	0.25%	0.99	0.78	1.61	108.42%	92.35%
Shenkman High Yield	5.12%	4.26%	0.79%	0.79	1.52%	0.94	1.11	-0.25	84.66%	73.01%
SSGA TIPS	1.67%	3.64%	-0.01%	1.00	0.03%	1.00	0.35	-0.31	99.85%	100.16%
Franklin Templeton Global Bond Plus	2.36%	5.01%	2.64%	-0.21	9.14%	0.07	0.39	0.11	13.04%	-39.16%
RREEF America II	11.09%	2.55%	-5.69%	1.52	1.53%	0.72	4.19	0.04	100.61%	--
TA Associates Realty	9.60%	3.44%	-6.36%	1.63	2.89%	0.35	2.67	-0.06	97.93%	--
Aetos Capital	4.43%	3.02%	-4.28%	2.40	2.98%	0.05	1.34	0.27	124.03%	--

IRR Analysis as of IRR date												
Vintage Year	Manager Name/Fund Name	Estimated Market Value as of 6/30/2017 ³	Total Commitment	Capital Called	% Called	Remaining Commitment	Capital Returned	Market Value as of IRR date	Distrib./ Paid-In (DPI) ¹	Tot. Value/ Paid-In (TVPI) ²	Net IRR Since Inception ⁵	IRR Date
Private Equity												
2005	BlackRock Private Capital II ⁷	\$5,326,358	\$15,000,000	\$15,000,000	100%	\$0	\$18,550,615	\$5,833,692	123.7%	159.2%	6.9%	03/31/18
2016	Ocean Avenue Fund III	\$11,177,654	\$20,000,000	\$9,200,000	46%	\$10,800,000	\$200,000	\$9,177,654	2.2%	123.7%	33.6%	03/31/18
2004	Pantheon USA Fund VI	\$4,000,982	\$15,000,000	\$14,175,000	95%	\$825,000	\$18,269,999	\$4,360,981	128.9%	157.1%	7.3%	03/31/18
2016	Pathway Private Equity Fund Investors 8	\$11,954,537	\$20,000,000	\$10,357,420	52%	\$9,642,580	\$658,623	\$10,773,241	6.4%	121.8%	21.1%	03/31/18
2017	Pathway Private Equity Fund Investors 9	\$3,260,349	\$20,000,000	\$3,260,349	16%	\$16,739,651	\$0	\$0	N/A	N/A	N/A	N/A
2011	StepStone Secondary Opportunities Fund II ⁸	\$16,937,545	\$27,500,000	\$27,500,000	100%	\$0	\$18,839,558	\$18,003,792	68.5%	130.1%	14.5%	03/31/18
Private Credit												
2016	TPG Diversified Credit	\$39,510,827	\$80,000,000	\$37,695,416	47%	\$42,304,584	\$485,608	\$37,371,575	1.3%	106.1%	9.3%	03/31/18
Private Real Estate												
2007	TA Associates VIII	\$5,036,584	\$30,000,000	\$30,000,000	100%	\$0	\$25,052,006	\$5,896,979	83.5%	100.3%	1.4%	03/31/18
Opportunistic												
2010	KKR Mezzanine Partners	\$3,240,133	\$15,000,000	\$15,000,000	100%	\$0	\$17,791,269	\$4,366,817	118.6%	140.2%	8.6%	03/31/18
2011	PIMCO Bravo	\$675,523	\$15,000,000	\$15,000,000	100%	\$0	\$27,040,381	\$963,797	180.3%	184.8%	22.4%	03/31/18

Total Private Markets	\$101,120,492	\$257,500,000	\$177,188,185	69%	\$80,311,815	\$126,888,059	\$96,748,528	71.6%	128.7%
% of Portfolio (Market Value)	6.4%								

¹(DPI) is equal to (capital returned / capital called)

²(TVPI) is equal to (market value + capital returned) / capital called

³Last known market value + capital calls - distributions

⁴IRR currently unavailable for these funds.

⁵Investment period ended, no further capital to be called.

⁶Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each IRR figure is provided by its respective manager.

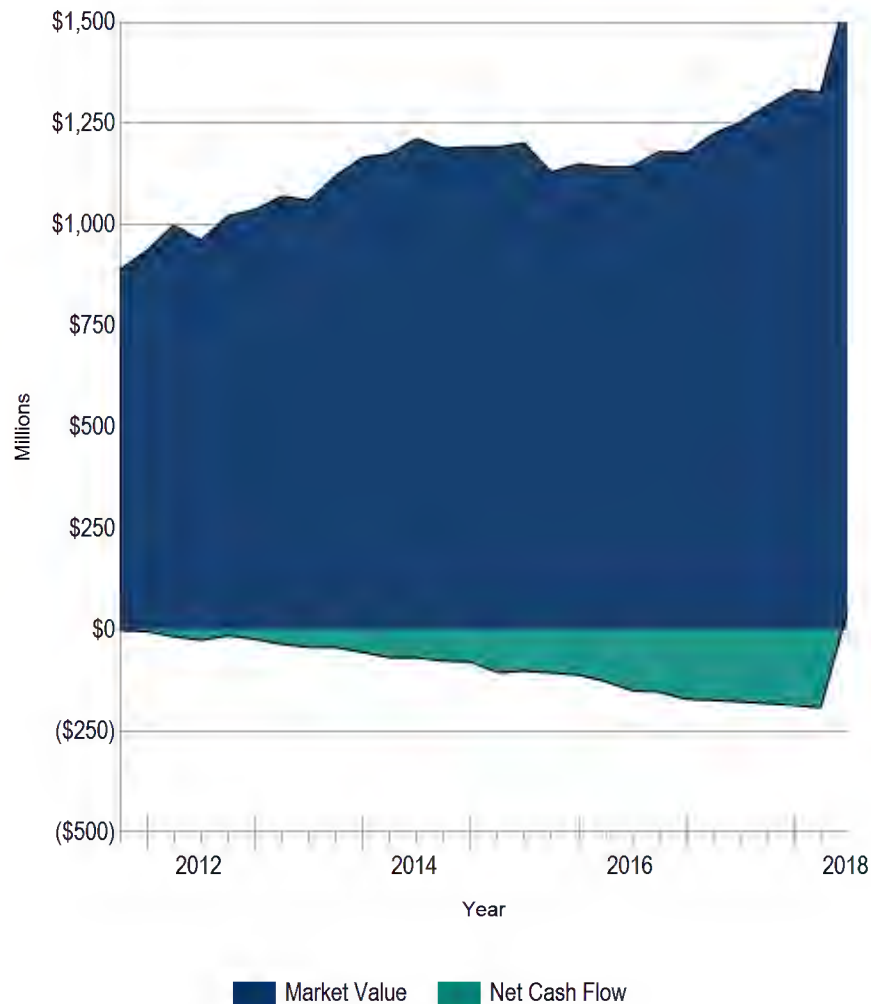
⁷BlackRock: Total capital called is \$15,519,967 which includes recycled distributions.

⁸StepStone: \$8,782,174 in recallable distributions

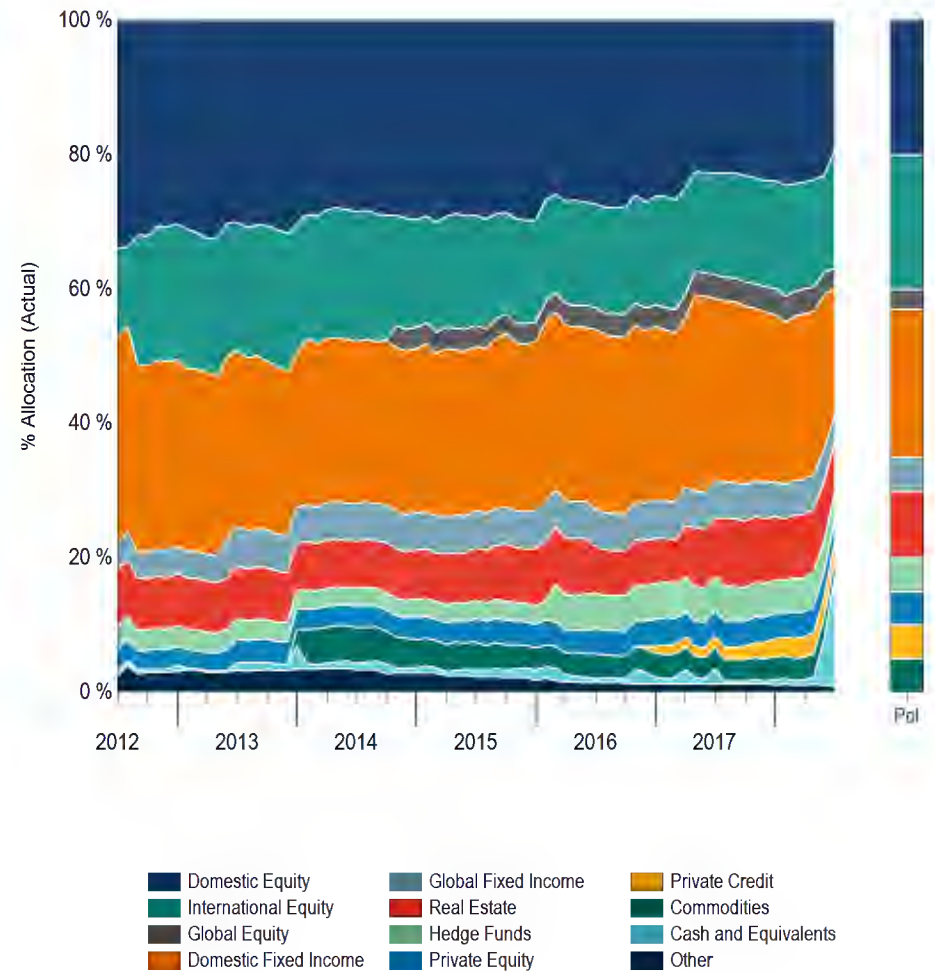
Total Fund Asset Allocation History

Period Ending: June 30, 2018

Market Value History



Asset Allocation History



Net Cash flow history prior to 4Q 2010 is not available due to lack of data from previous consultant.

Total Fund Asset Allocation vs. Policy

Period Ending: June 30, 2018



Investment Fund Fee Analysis

Period Ending: June 30, 2018

Account	Fee Schedule	Market Value As of 6/30/2018	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Aetos Capital	0.70% of Assets	\$31,943,980	2.0%	\$223,608	0.70%
BlackRock Alternative Advisors	120,000 Annually	\$5,326,358	0.3%	\$120,000	2.25%
BlackRock Fixed Income	0.25% of First 100.0 Mil, 0.25% of Next 100.0 Mil	\$132,263,390	8.4%	\$330,658	0.25%
Boston Partners Large Cap Value	0.45% of First 50.0 Mil, 0.35% of Next 50.0 Mil, 0.30% Thereafter	\$53,638,095	3.4%	\$237,733	0.44%
Doubleline Core Plus	0.28% of First 100.0 Mil, 0.25% Thereafter	\$70,096,543	4.5%	\$196,270	0.28%
Franklin Templeton Global Bond Plus	0.62% of First 50.0 Mil, 0.51% of Next 50.0 Mil, 0.45% Thereafter	\$63,573,316	4.0%	\$379,224	0.60%
Gresham MTAP Commodity Builder	0.75% of Assets	\$20,323,010	1.3%	\$152,423	0.75%
Ivy Large Cap Growth	0.60% of First 25.0 Mil, 0.50% of Next 25.0 Mil, 0.40% Thereafter	\$62,241,211	4.0%	\$323,965	0.52%
Kohlberg Kravis Roberts & Co. Mezzanine Partners I	0.38% of Assets	\$3,240,133	0.2%	\$12,151	0.38%
Lee Munder Small Value	0.90% of First 25.0 Mil, 0.85% of Next 75.0 Mil, 0.30% Thereafter	\$24,235,141	1.5%	\$218,116	0.90%
MacKay Shields Core Plus	0.40% of Assets	\$69,326,850	4.4%	\$277,307	0.40%
Mellon Capital Cash Account	No Fee	\$255,059,551	16.2%	--	--
Ocean Avenue Fund III	0.85% of Assets	\$11,177,654	0.7%	\$95,010	0.85%
Pantheon Ventures	0.47% of Assets	\$4,000,982	0.3%	\$18,965	0.47%
Pathway Private Equity Fund Investors 8	0.61% of Assets	\$11,954,537	0.8%	\$72,923	0.61%
Pathway Private Equity Fund Investors 9	0.58% of Assets	\$3,260,349	0.2%	\$18,910	0.58%
PIMCO Bravo	1.60% of Assets	\$675,523	0.0%	\$43,233	6.40%
PIMCO RAE Fundamental Global Ex US Fund	0.78% of First 25.0 Mil, 0.43% of Next 75.0 Mil, 0.38% Thereafter	\$93,952,910	6.0%	\$491,498	0.52%
QMA Large Cap Core	0.35% of First 50.0 Mil, 0.30% of Next 50.0 Mil, 0.25% Thereafter	\$57,172,076	3.6%	\$196,516	0.34%
RREEF America II	0.95% of Assets	\$111,371,982	7.1%	\$1,058,034	0.95%

*In addition to a management fee, Aetos charges a 10% incentive fee above a hurdle rate of the average three-month Treasury Bill rate in effect during the relevant incentive fee calculation. Fees shown for Pathway are estimated effective average fees over 15-year fund lifespan.

Investment Fund Fee Analysis

Period Ending: June 30, 2018

Account	Fee Schedule	Market Value As of 6/30/2018	% of Portfolio	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
SGA Global Growth	0.45% of Assets	\$85,935,874	5.5%	\$386,711	0.45%
Shenkman High Yield	0.50% of Assets	\$20,520,048	1.3%	\$102,600	0.50%
Skellig DST Water Fund	0.77% of Assets	\$44,475,622	2.8%	\$340,239	0.77%
SSGA MSCI ACWI Ex US Index Fund	0.08% of First 25.0 Mil, 0.07% of Next 25.0 Mil, 0.06% Thereafter	\$94,636,369	6.0%	\$64,282	0.07%
SSGA Russell Small Cap Completeness Index	0.05% of First 25.0 Mil, 0.05% of Next 25.0 Mil, 0.04% Thereafter	\$24,784,512	1.6%	\$12,392	0.05%
SSGA S&P 500 Flagship Fund	0.03% of Assets	\$56,464,204	3.6%	\$16,939	0.03%
SSGA TIPS	0.06% of First 50.0 Mil, 0.05% of Next 50.0 Mil, 0.04% Thereafter	\$11,164,016	0.7%	\$6,698	0.06%
Stepstone Secondary Opportunities Fund II	343,750 Annually	\$16,937,545	1.1%	\$343,750	2.03%
TA Associates Realty	0.60% of Assets	\$5,036,584	0.3%	\$30,220	0.60%
The Clifton Group	Asset Based Fee: 0.0375% (Quarterly) Retainer Fee: \$4,500 (Quarterly) Minimum Expense: \$50,000 (Annual)	\$7,698,376	0.5%	--	--
Titan Advisors	.75% on AUM, 10% on performance, 5% hurdle rate.	\$32,188,513	2.0%	--	--
TPG Diversified Credit	No Fee	\$39,510,827	2.5%	--	--
Wellington Commodity	0.75% of Assets	\$21,388,772	1.4%	\$160,416	0.75%
William Blair SMID Cap Growth	0.95% of First 10.0 Mil, 0.80% of Next 20.0 Mil, 0.75% of Next 20.0 Mil, 0.70% of Next 50.0 Mil, 0.65% of Next 100.0 Mil, 0.60% Thereafter	\$29,185,074	1.9%	\$248,481	0.85%
Investment Management Fee		\$1,574,759,925	100.0%	\$6,179,272	0.39%

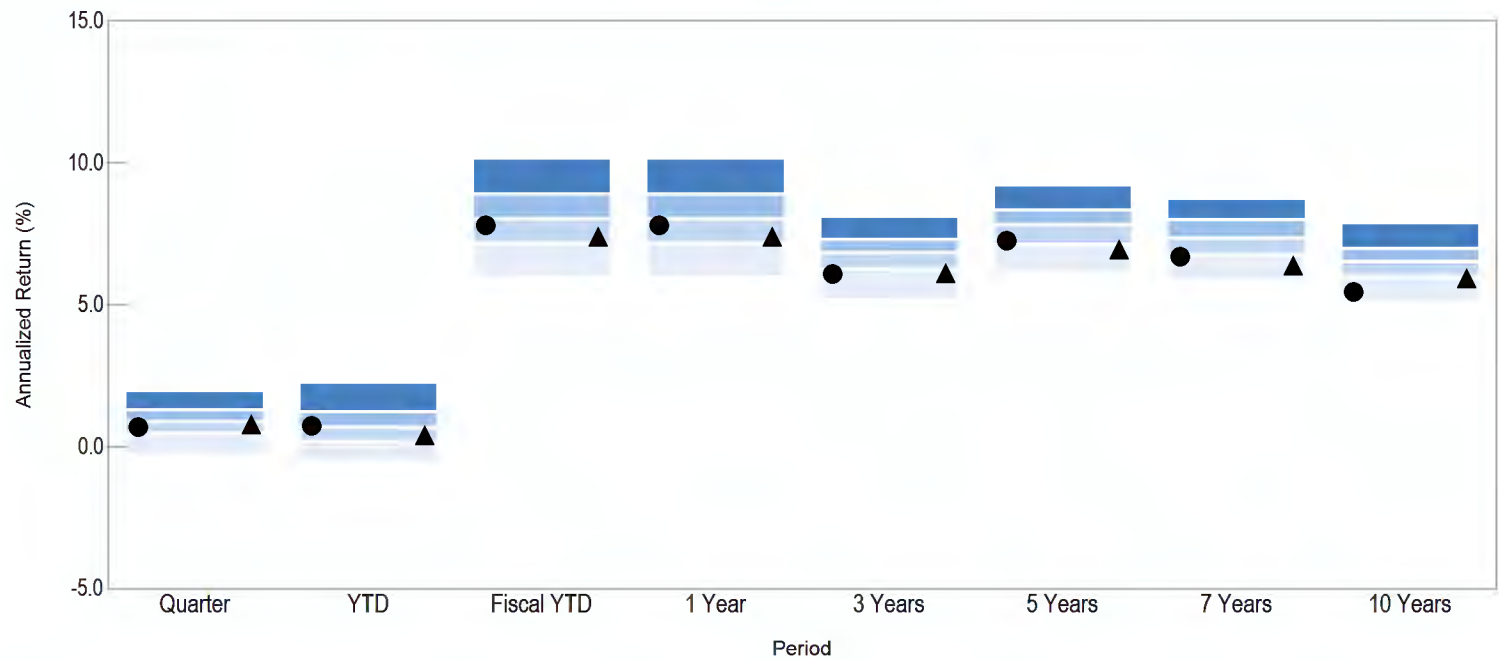
*TPG fee schedule is as follows: No management fee at SMA level. Subject to the annual fees of each of the underlying TSSP funds. (1) TAO 65bps on unfunded commitments and 1.35% on remaining capital contributions (long-term investor designation) (2) TSLE 1.5% on commitments, 1.25% on remaining capital contributions post commitment period (3) TICP 30bps on remaining capital contributions.

Total Fund

Peer Universe Comparison: Cumulative Performance (Gross of Fees)

Period Ending: June 30, 2018

Total Fund Cumulative Performance vs. InvestorForce Public DB Gross

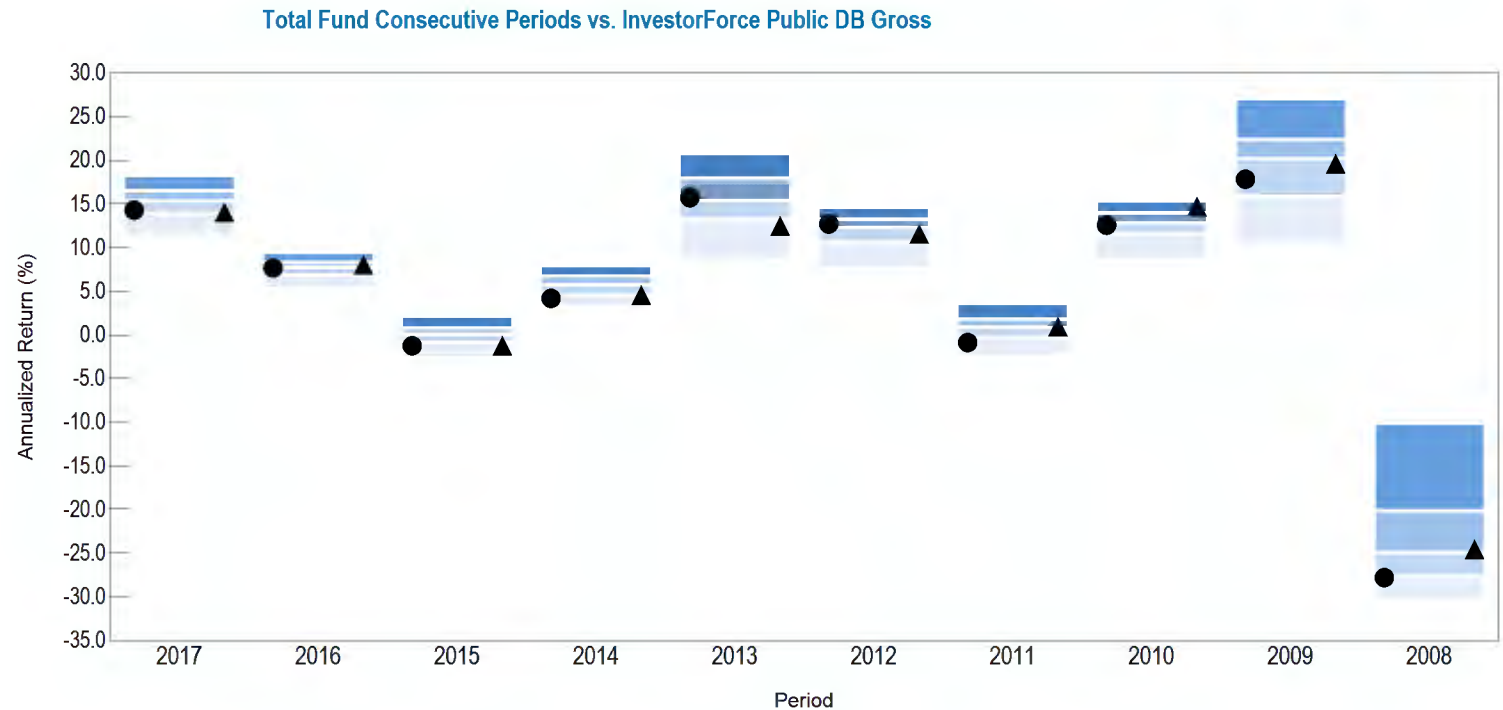


	Return (Rank)											
5th Percentile	2.0		2.3		10.2		10.2		8.1		9.2	
25th Percentile	1.3		1.2		8.9		8.9		7.3		8.3	
Median	0.9		0.7		8.0		8.0		6.8		7.8	
75th Percentile	0.5		0.2		7.2		7.2		6.3		7.1	
95th Percentile	-0.3		-0.5		6.0		6.0		5.2		6.1	
# of Portfolios	211		211		209		209		204		190	
● Total Fund	0.7	(61)	0.7	(48)	7.8	(56)	7.8	(56)	6.1	(83)	7.3	(71)
▲ Policy Index	0.8	(56)	0.4	(63)	7.4	(69)	7.4	(69)	6.1	(81)	7.0	(84)
											6.7	(78)
											6.4	(86)
											5.9	(78)

Total Fund

Peer Universe Comparison: Consecutive Periods (Gross of Fees)

Period Ending: June 30, 2018

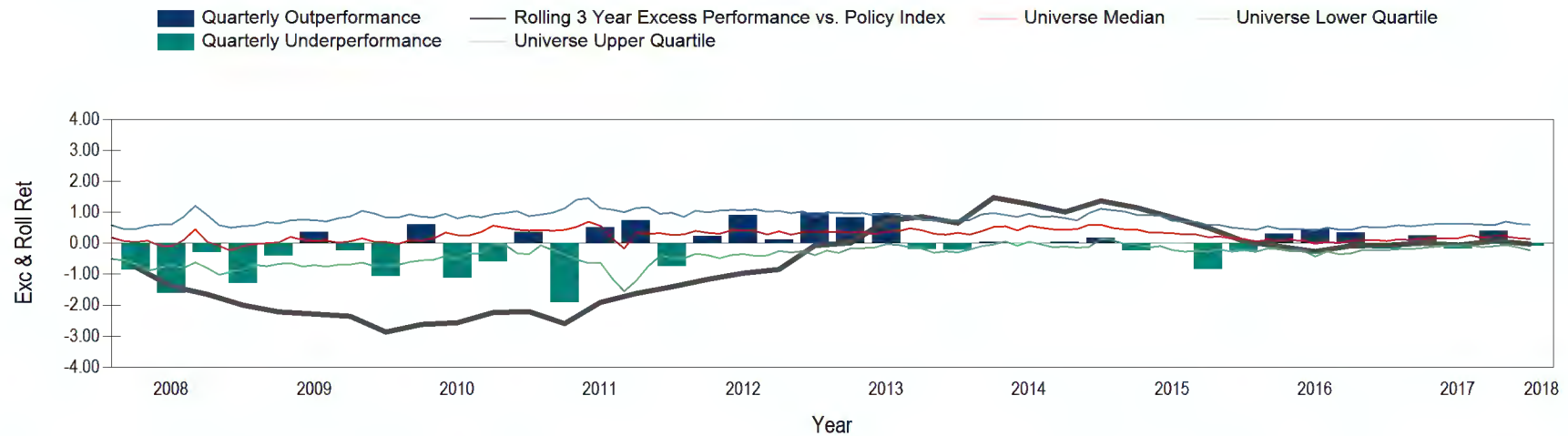


	Return (Rank)									
5th Percentile	18.2	9.4	2.2	8.0	20.8	14.6	3.6	15.4	27.0	-10.1
25th Percentile	16.5	8.4	0.9	6.8	18.0	13.4	1.9	14.0	22.4	-20.1
Median	15.3	7.7	0.1	5.8	15.5	12.4	0.9	12.9	20.2	-24.9
75th Percentile	14.0	6.9	-0.9	4.6	13.3	10.7	-0.3	11.7	15.9	-27.6
95th Percentile	11.3	5.3	-2.6	3.2	8.5	7.8	-2.5	8.6	10.5	-30.3
# of Portfolios	304	305	316	248	231	236	206	188	184	181
● Total Fund	14.3 (71)	7.6 (53)	-1.2 (80)	4.2 (83)	15.8 (49)	12.8 (43)	-0.8 (86)	12.6 (57)	17.8 (67)	-27.7 (77)
▲ Policy Index	14.0 (74)	8.0 (40)	-1.1 (80)	4.6 (75)	12.6 (80)	11.6 (67)	1.0 (46)	14.7 (13)	19.6 (53)	-24.5 (46)

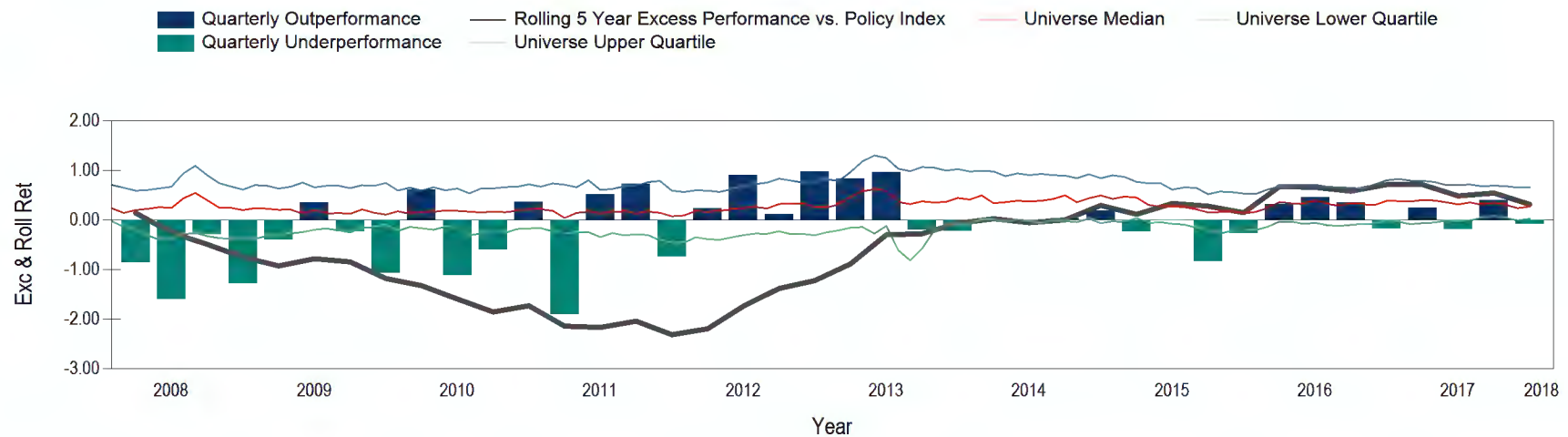
Total Fund Rolling Return Analysis (Gross of Fees)

Period Ending: June 30, 2018

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



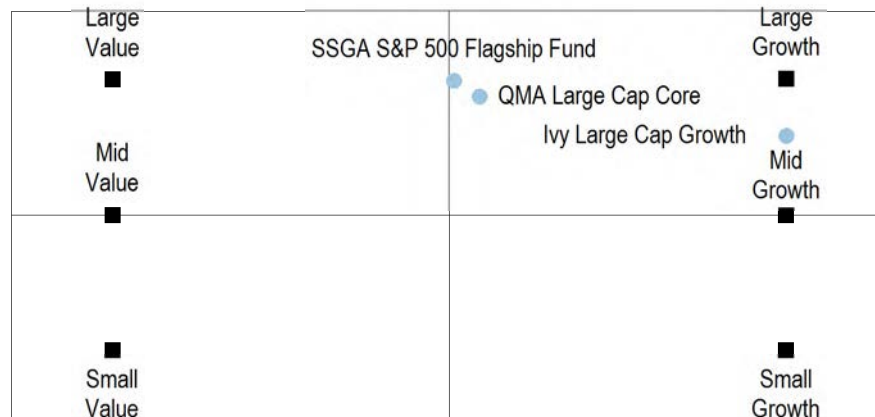
Total Domestic Equity

Asset Class Overview (Gross of Fees)

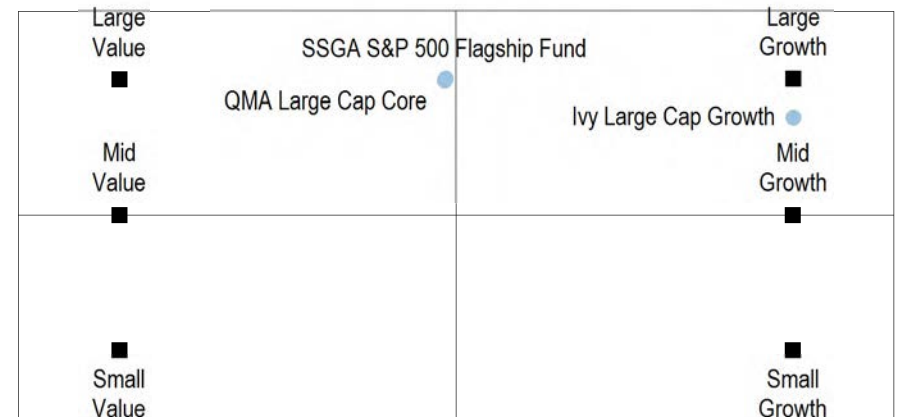
Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Domestic Equity	307,720,312	4.1	4.5	17.1	17.1	12.0	14.0	11.2	22.3	11.5	1.6	12.4	35.9
<i>Russell 3000</i>		3.9	3.2	14.8	14.8	11.6	13.3	10.2	21.1	12.7	0.5	12.6	33.6
<i>InvestorForce Public DB US Eq Gross Rank</i>		29	18	14	14	14	5	4	16	77	10	17	24
SSGA S&P 500 Flagship Fund	56,464,204	3.4	2.6	14.4	14.4	12.0	13.5	--	21.9	12.0	1.5	13.7	32.4
<i>S&P 500</i>		3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
<i>eV US Large Cap Core Equity Gross Rank</i>		33	37	44	44	26	39	--	52	31	40	42	58
QMA Large Cap Core	57,172,076	3.8	2.4	16.4	16.4	12.3	14.3	--	22.5	12.5	2.1	15.6	34.3
<i>S&P 500</i>		3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
<i>eV US Large Cap Core Equity Gross Rank</i>		22	41	24	24	21	18	--	42	25	31	20	37
Ivy Large Cap Growth	62,241,211	6.1	10.7	27.0	27.0	14.5	17.4	--	30.2	2.1	7.6	12.8	37.3
<i>Russell 1000 Growth</i>		5.8	7.3	22.5	22.5	15.0	16.4	--	30.2	7.1	5.7	13.0	33.5
<i>eV US Large Cap Growth Equity Gross Rank</i>		34	26	20	20	37	25	--	42	72	26	40	25

U.S. Effective Style Map
3 Years



U.S. Effective Style Map
5 Years



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

Total Domestic Equity Asset Class Overview (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Boston Partners Large Cap Value	53,638,095	-0.1	-1.6	10.5	10.5	9.0	11.1	10.6	20.1	14.7	-3.9	11.8	37.0
Russell 1000 Value		1.2	-1.7	6.8	6.8	8.3	10.3	8.5	13.7	17.3	-3.8	13.5	32.5
eV US Large Cap Value Equity Gross Rank		91	70	46	46	58	55	20	22	54	65	58	26
SSGA Russell Small Cap Completeness Index	24,784,512	5.9	6.1	16.8	16.8	10.4	12.7	--	18.2	16.5	-3.5	7.4	--
Russell Small Cap Completeness		5.9	6.1	16.9	16.9	10.5	12.8	--	18.3	16.6	-3.4	7.4	--
eV US Small Cap Core Equity Gross Rank		64	55	47	47	66	66	--	23	84	68	37	--
William Blair SMID Cap Growth	29,185,074	5.7	11.6	24.7	24.7	15.0	17.0	14.6	30.4	8.2	6.1	9.8	43.1
Russell 2500 Growth		5.5	8.0	21.5	21.5	10.9	13.9	11.4	24.5	9.7	-0.2	7.1	40.7
eV US Mid Cap Growth Equity Gross Rank		25	19	17	17	8	4	4	16	22	7	33	11
Lee Munder Small Value	24,235,141	7.5	3.3	9.9	9.9	11.3	11.9	--	8.6	28.4	0.4	5.1	33.1
Russell 2000 Value		8.3	5.4	13.1	13.1	11.2	11.2	--	7.8	31.7	-7.5	4.2	34.5
eV US Small Cap Value Equity Gross Rank		24	58	81	81	40	56	--	68	38	9	60	85

U.S. Effective Style Map
3 Years



U.S. Effective Style Map
5 Years



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

Total Domestic Equity
Asset Class Overview (Net of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Domestic Equity	307,720,312	4.0	4.3	16.6	16.6	11.6	13.6	10.7	21.9	11.1	1.2	12.0	35.3
<i>Russell 3000</i>		3.9	3.2	14.8	14.8	11.6	13.3	10.2	21.1	12.7	0.5	12.6	33.6
SSGA S&P 500 Flagship Fund	56,464,204	3.4	2.6	14.4	14.4	12.0	13.4	--	21.8	12.0	1.4	13.7	32.4
<i>S&P 500</i>		3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
QMA Large Cap Core	57,172,076	3.7	2.2	16.0	16.0	11.9	13.9	--	22.1	12.1	1.8	15.2	33.9
<i>S&P 500</i>		3.4	2.6	14.4	14.4	11.9	13.4	--	21.8	12.0	1.4	13.7	32.4
Ivy Large Cap Growth	62,241,211	6.0	10.5	26.3	26.3	13.9	16.8	--	29.5	1.6	7.1	12.3	36.6
<i>Russell 1000 Growth</i>		5.8	7.3	22.5	22.5	15.0	16.4	--	30.2	7.1	5.7	13.0	33.5
Boston Partners Large Cap Value	53,638,095	-0.2	-1.8	10.0	10.0	8.5	10.6	10.2	19.6	14.2	-4.4	11.4	36.4
<i>Russell 1000 Value</i>		1.2	-1.7	6.8	6.8	8.3	10.3	8.5	13.7	17.3	-3.8	13.5	32.5
SSGA Russell Small Cap Completeness Index	24,784,512	5.9	6.0	16.7	16.7	10.4	12.6	--	18.1	16.5	-3.5	7.3	--
<i>Russell Small Cap Completeness</i>		5.9	6.1	16.9	16.9	10.5	12.8	--	18.3	16.6	-3.4	7.4	--
William Blair SMID Cap Growth	29,185,074	5.5	11.2	23.6	23.6	14.0	16.0	13.6	29.3	7.2	5.2	8.8	42.0
<i>Russell 2500 Growth</i>		5.5	8.0	21.5	21.5	10.9	13.9	11.4	24.5	9.7	-0.2	7.1	40.7
Lee Munder Small Value	24,235,141	7.3	2.9	8.9	8.9	10.3	10.9	--	7.7	27.3	-0.5	4.1	31.8
<i>Russell 2000 Value</i>		8.3	5.4	13.1	13.1	11.2	11.2	--	7.8	31.7	-7.5	4.2	34.5

Total Domestic Equity
Common Holdings Matrix

Period Ending: June 30, 2018

	SSGA S&P 500 Flagship Fund		QMA Large Cap Core		Ivy Large Cap Growth		Boston Partners Large Cap Value		William Blair SMID Cap Growth		Lee Munder Small Value		SSGA Russell Small Cap Completeness Index	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
SSGA S&P 500 Flagship Fund	--	--	147	90.5	41	97.9	62	87.2	3	5.4	1	1.5	0	0.0
QMA Large Cap Core	147	60.6	--	--	21	54.4	33	57.6	2	3.3	7	7.4	66	6.0
Ivy Large Cap Growth	41	28.1	21	25.0	--	--	7	7.9	0	0.0	0	0.0	0	0.0
Boston Partners Large Cap Value	62	27.9	33	26.8	7	17.2	--	--	0	0.0	0	0.0	8	1.1
William Blair SMID Cap Growth	3	0.2	2	0.2	0	0.0	0	0.0	--	--	3	4.1	64	7.3
Lee Munder Small Value	1	0.0	7	0.6	0	0.0	0	0.0	3	5.7	--	--	85	4.7
SSGA Russell Small Cap Completeness Index	0	0.0	66	8.5	0	0.0	8	4.1	64	86.8	85	92.2	--	--

Total Domestic Equity Correlation Matrix

Period Ending: June 30, 2018

Correlation Matrix
6 Months Ending June 30, 2018

	SSGA S&P 500 Flagship Fund	QMA Large Cap Core	Ivy Large Cap Growth	Boston Partners Large Cap Value	William Blair SMID Cap Growth	SSGA Russell Small Cap Completeness Index	Lee Munder Small Value	S&P 500
SSGA S&P 500 Flagship Fund	1.00	--	--	--	--	--	--	--
QMA Large Cap Core	0.99	1.00	--	--	--	--	--	--
Ivy Large Cap Growth	0.96	0.95	1.00	--	--	--	--	--
Boston Partners Large Cap Value	0.94	0.91	0.87	1.00	--	--	--	--
William Blair SMID Cap Growth	0.87	0.89	0.84	0.76	1.00	--	--	--
Lee Munder Small Value	0.69	0.75	0.59	0.48	0.74	1.00	--	--
SSGA Russell Small Cap Completeness Index	0.81	0.86	0.74	0.64	0.91	0.95	1.00	--
S&P 500	1.00	0.99	0.96	0.94	0.87	0.69	0.81	1.00

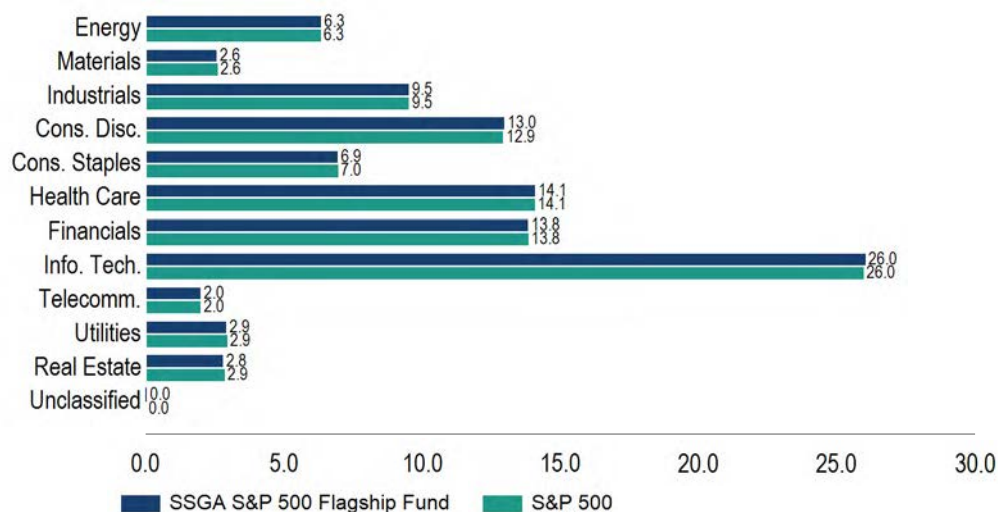
SSGA S&P 500 Flagship Fund Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	S&P 500
Number of Holdings	505	505
Weighted Avg. Market Cap. (\$B)	199.82	198.93
Median Market Cap. (\$B)	20.59	20.49
Price To Earnings	33.95	23.48
Price To Book	6.03	4.90
Price To Sales	4.28	4.07
Return on Equity (%)	22.53	21.68
Yield (%)	1.95	1.95
Beta	1.00	1.00

Sector Allocation (%) vs S&P 500



*Unclassified includes Cash

Top Holdings Ending Period Weight

APPLE	3.95%	AMAZON.COM
MICROSOFT	3.30%	APPLE
AMAZON.COM	2.97%	FACEBOOK CLASS A
FACEBOOK CLASS A	2.02%	MICROSOFT
BERKSHIRE HATHAWAY 'B'	1.56%	NETFLIX
JP MORGAN CHASE & CO.	1.54%	EXXON MOBIL
EXXON MOBIL	1.53%	UNITEDHEALTH GROUP
ALPHABET 'C'	1.48%	ALPHABET A
ALPHABET A	1.47%	CHEVRON
JOHNSON & JOHNSON	1.42%	ALPHABET 'C'
Total	21.25%	

Top Contributors

Avg Wgt	Return	Contribution
2.59	17.44	0.45
3.79	10.76	0.41
1.70	21.61	0.37
3.13	8.51	0.27
0.57	32.53	0.19
1.40	12.00	0.17
0.92	15.05	0.14
1.38	8.88	0.12
0.97	11.82	0.11
1.40	8.13	0.11

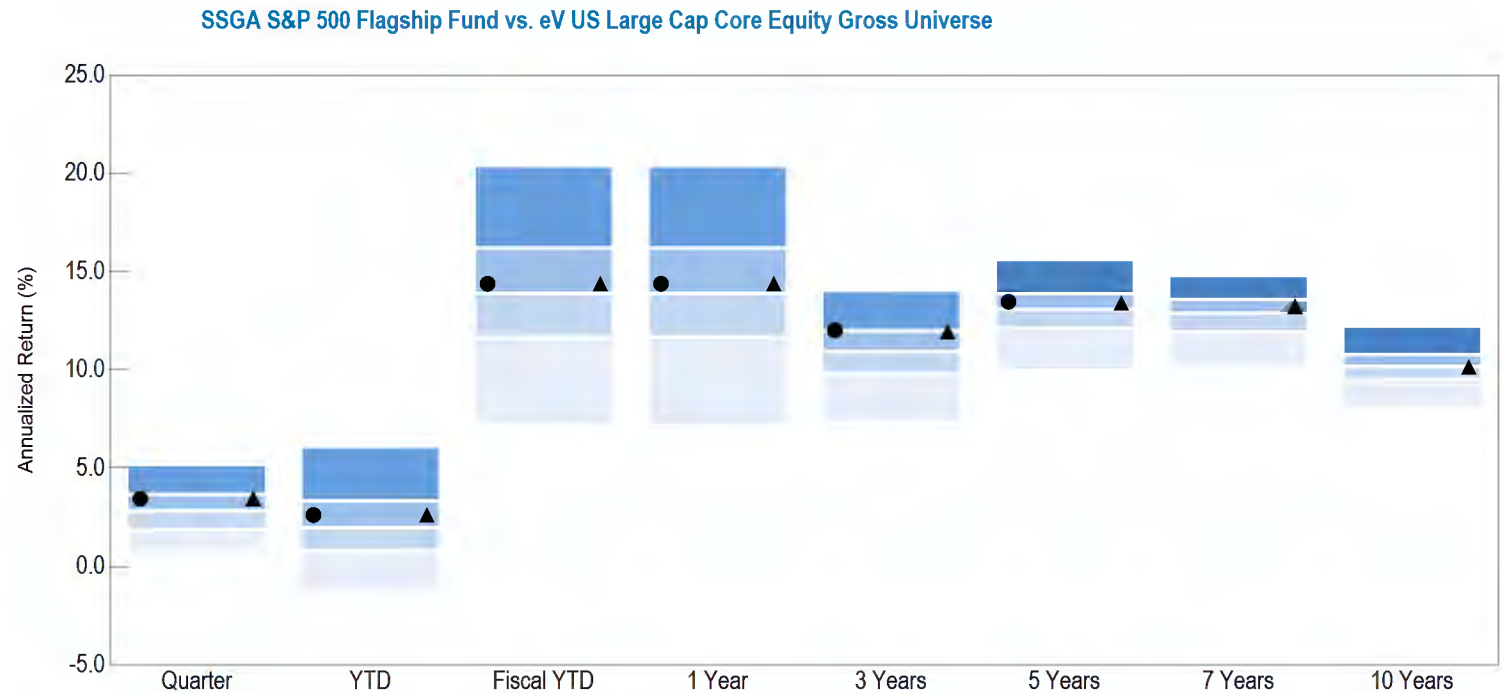
Bottom Contributors

Avg Wgt	Return	Contribution
0.69	-17.61	-0.12
1.70	-6.43	-0.11
0.97	-8.65	-0.08
1.68	-4.77	-0.08
1.28	-5.61	-0.07
1.54	-4.61	-0.07
0.58	-9.78	-0.06
0.36	-15.17	-0.06
0.46	-11.94	-0.06
0.39	-12.12	-0.05

SSGA S&P 500 Flagship Fund

Cumulative Performance Comparison (Gross of Fees)

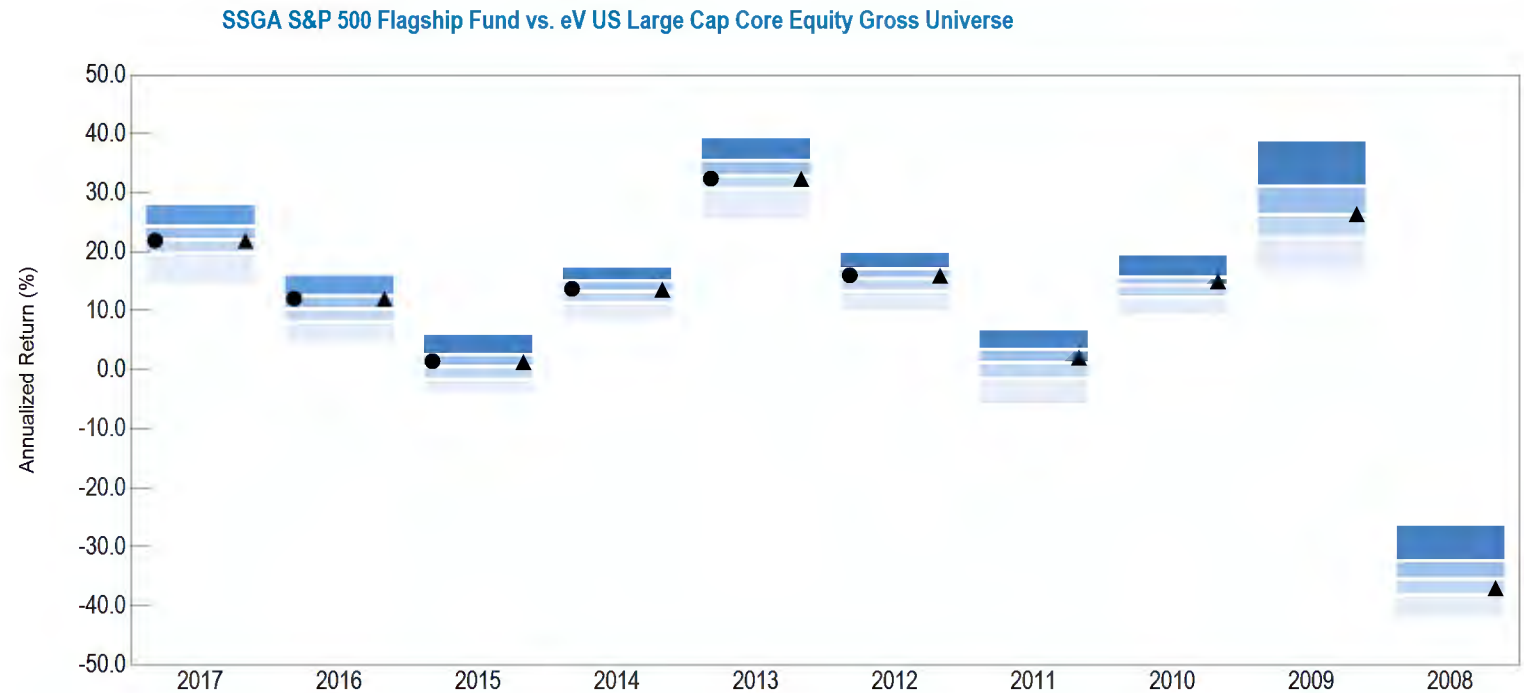
Period Ending: June 30, 2018



	Return (Rank)													
5th Percentile	5.2		6.1		20.4		20.4		14.0		15.6		14.8	
25th Percentile	3.7		3.3		16.2		16.2		12.0		13.9		13.6	
Median	2.8		2.0		13.9		13.9		10.9		13.1		12.9	
75th Percentile	1.9		0.8		11.7		11.7		9.8		12.1		11.9	
95th Percentile	0.7		-1.3		7.2		7.2		7.3		10.0		10.1	
# of Portfolios	313		313		313		313		300		284		255	
● SSGA S&P 500 Flagship Fund	3.4	(33)	2.6	(37)	14.4	(44)	14.4	(44)	12.0	(26)	13.5	(39)	--	(--)
▲ S&P 500	3.4	(33)	2.6	(37)	14.4	(44)	14.4	(44)	11.9	(28)	13.4	(40)	13.2	(37)

SSGA S&P 500 Flagship Fund
Consecutive Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018



	Return (Rank)									
5th Percentile	28.2	16.3	6.3	17.7	39.6	20.1	7.0	19.7	39.1	-26.1
25th Percentile	24.3	12.5	2.7	15.1	35.5	17.2	3.6	15.8	31.2	-32.3
Median	22.1	10.4	0.6	13.3	32.9	15.4	1.3	14.4	26.3	-35.4
75th Percentile	19.8	8.2	-1.6	11.4	30.8	13.4	-1.5	12.3	22.6	-38.1
95th Percentile	14.4	4.3	-4.1	8.2	25.4	9.8	-5.9	9.1	16.1	-42.3
# of Portfolios	318	308	267	267	261	254	259	254	280	312
● SSGA S&P 500 Flagship Fund	21.9 (52)	12.0 (31)	1.5 (40)	13.7 (42)	32.4 (58)	16.1 (39)	-- (--)	-- (--)	-- (--)	-- (--)
▲ S&P 500	21.8 (53)	12.0 (31)	1.4 (42)	13.7 (42)	32.4 (58)	16.0 (41)	2.1 (40)	15.1 (37)	26.5 (48)	-37.0 (62)

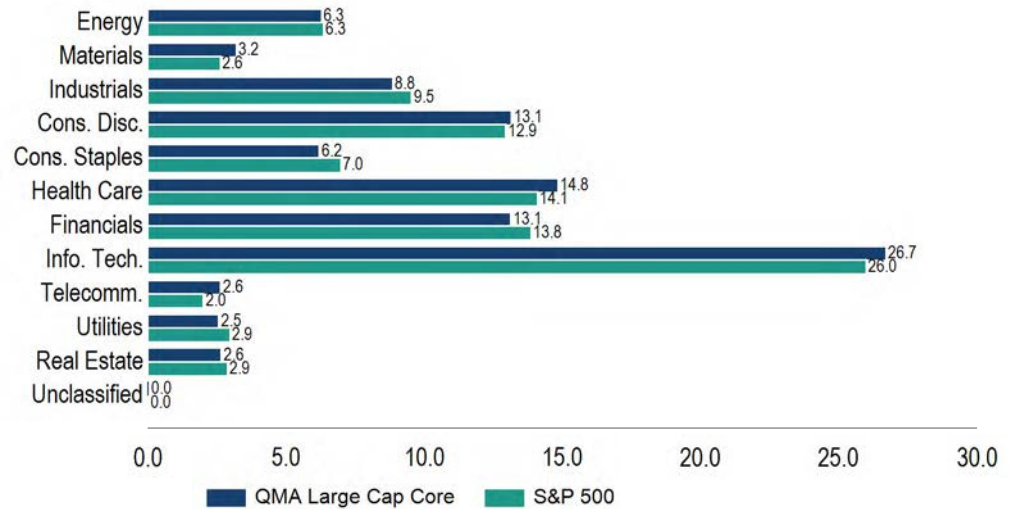
QMA Large Cap Core Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	S&P 500
Number of Holdings	221	505
Weighted Avg. Market Cap. (\$B)	170.83	198.93
Median Market Cap. (\$B)	24.35	20.49
Price To Earnings	29.70	23.48
Price To Book	5.86	4.90
Price To Sales	3.76	4.07
Return on Equity (%)	23.92	21.68
Yield (%)	1.93	1.95
Beta	1.03	1.00

Sector Allocation (%) vs S&P 500



*Unclassified includes Cash

Top Holdings Ending Period Weight

	Weight	Company
APPLE	2.96%	FACEBOOK CLASS A
MICROSOFT	2.59%	NETFLIX
FACEBOOK CLASS A	2.39%	APPLE
JP MORGAN CHASE & CO.	2.21%	AMAZON.COM
ALPHABET 'C'	2.10%	MICROSOFT
AMAZON.COM	1.82%	UNITEDHEALTH GROUP
BANK OF AMERICA	1.69%	LULULEMON ATHLETICA
VISA 'A'	1.58%	ANADARKO PETROLEUM
VERIZON COMMUNICATIONS	1.47%	ALPHABET 'C'
ALPHABET A	1.45%	VISA 'A'
Total	20.26%	

Top Contributors

Avg Wgt	Return	Contribution
2.06	21.61	0.45
0.97	32.53	0.31
2.78	10.76	0.30
1.47	17.44	0.26
2.49	8.51	0.21
1.24	15.05	0.19
0.42	40.09	0.17
0.77	21.68	0.17
2.01	8.13	0.16
1.48	10.90	0.16

Bottom Contributors

Avg Wgt	Return	Contribution
1.06	-12.02	-0.13
0.73	-16.61	-0.12
2.42	-4.77	-0.12
0.71	-15.56	-0.11
1.22	-8.65	-0.11
1.86	-5.61	-0.10
0.59	-17.34	-0.10
0.62	-16.11	-0.10
0.96	-9.78	-0.09
1.01	-7.75	-0.08

QMA Large Cap Core
Cumulative Performance Comparison (Gross of Fees)

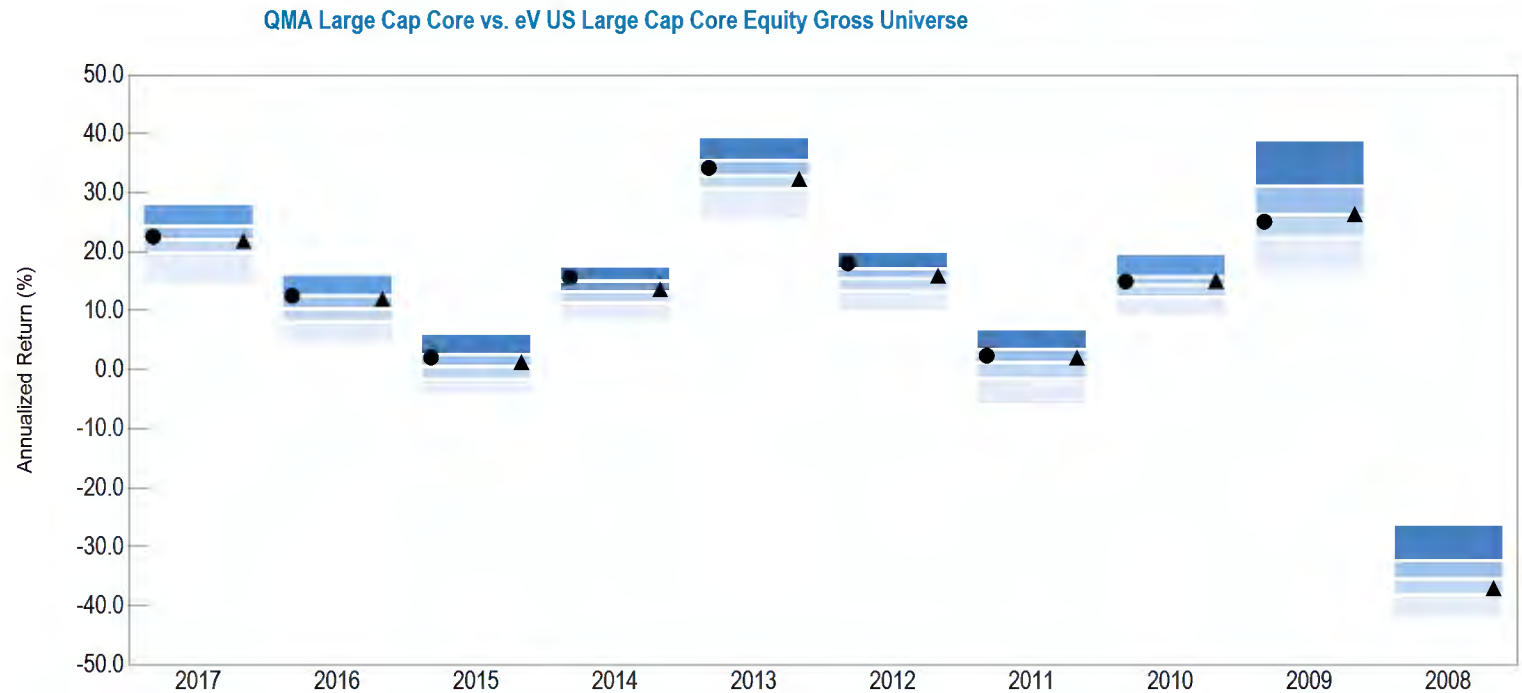
Period Ending: June 30, 2018



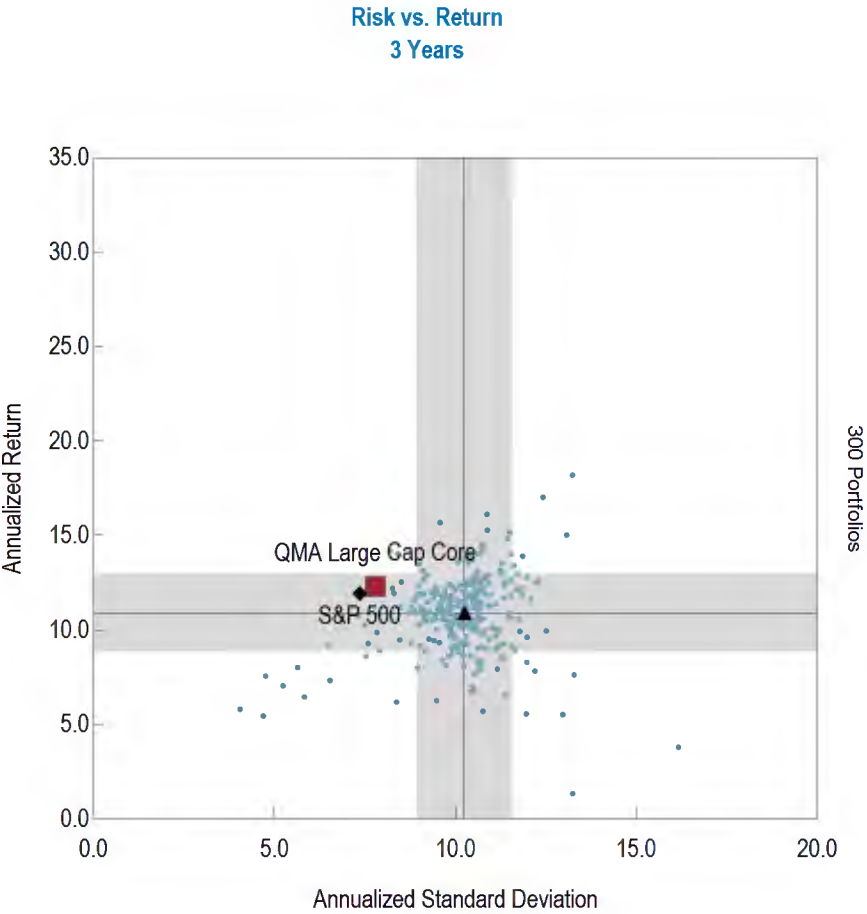
	Return (Rank)													
5th Percentile	5.2		6.1		20.4		20.4		14.0		15.6		14.8	
25th Percentile	3.7		3.3		16.2		16.2		12.0		13.9		13.6	
Median	2.8		2.0		13.9		13.9		10.9		13.1		12.9	
75th Percentile	1.9		0.8		11.7		11.7		9.8		12.1		11.9	
95th Percentile	0.7		-1.3		7.2		7.2		7.3		10.0		10.1	
# of Portfolios	313		313		313		313		300		284		255	
● QMA Large Cap Core	3.8	(22)	2.4	(41)	16.4	(24)	16.4	(24)	12.3	(21)	14.3	(18)	14.2	(12)
▲ S&P 500	3.4	(33)	2.6	(37)	14.4	(44)	14.4	(44)	11.9	(28)	13.4	(40)	13.2	(37)
													--	(--)
													10.2	(51)

QMA Large Cap Core
Consecutive Performance Comparison (Gross of Fees)

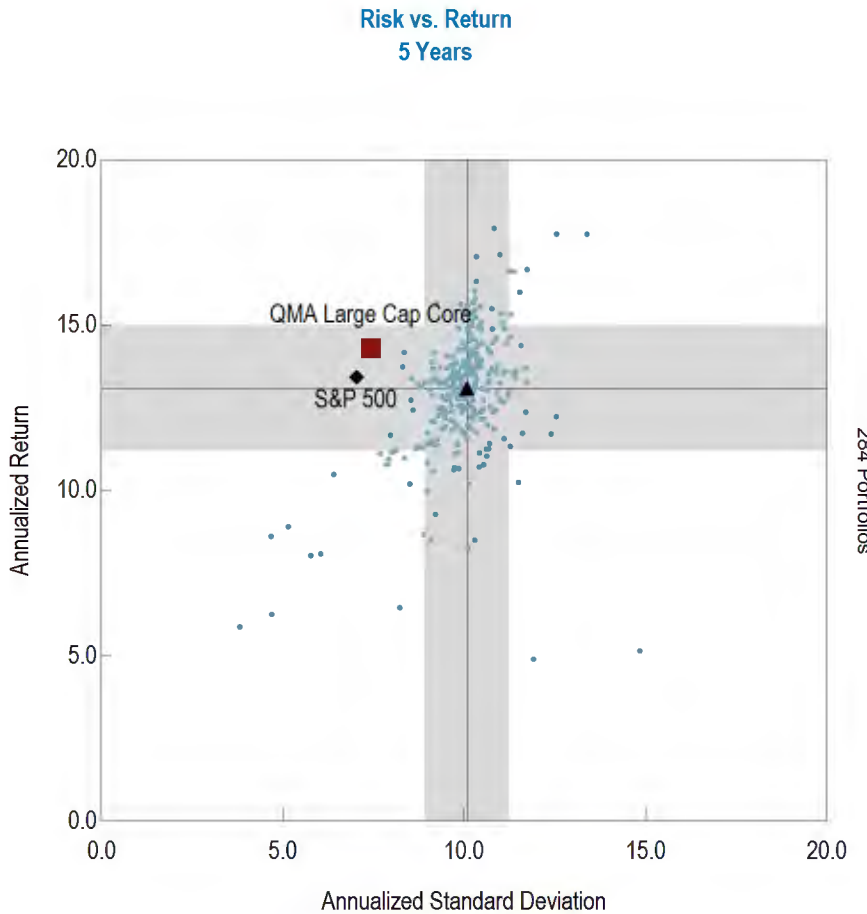
Period Ending: June 30, 2018



	Return (Rank)									
5th Percentile	28.2	16.3	6.3	17.7	39.6	20.1	7.0	19.7	39.1	-26.1
25th Percentile	24.3	12.5	2.7	15.1	35.5	17.2	3.6	15.8	31.2	-32.3
Median	22.1	10.4	0.6	13.3	32.9	15.4	1.3	14.4	26.3	-35.4
75th Percentile	19.8	8.2	-1.6	11.4	30.8	13.4	-1.5	12.3	22.6	-38.1
95th Percentile	14.4	4.3	-4.1	8.2	25.4	9.8	-5.9	9.1	16.1	-42.3
# of Portfolios	318	308	267	267	261	254	259	254	280	312
● QMA Large Cap Core	22.5 (42)	12.5 (25)	2.1 (31)	15.6 (20)	34.3 (37)	18.1 (18)	2.4 (34)	14.9 (40)	25.2 (58)	-- (--)
▲ S&P 500	21.8 (53)	12.0 (31)	1.4 (42)	13.7 (42)	32.4 (58)	16.0 (41)	2.1 (40)	15.1 (37)	26.5 (48)	-37.0 (62)

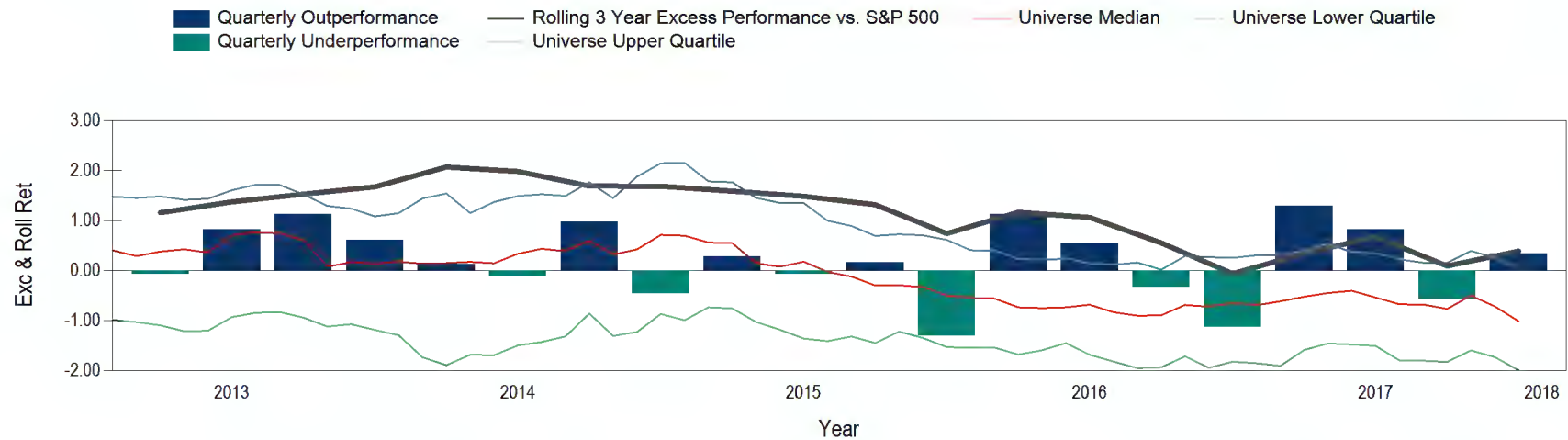


- QMA Large Cap Core
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eV US Large Cap Core Equity Gross

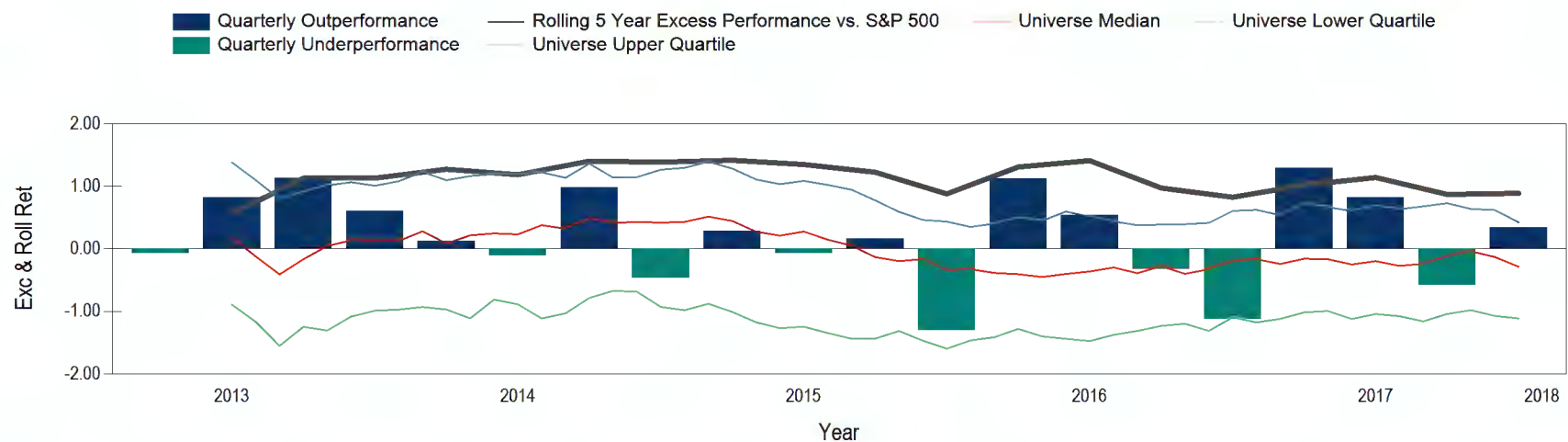


- QMA Large Cap Core
- ◆ S&P 500
- ▲ Universe Median
- 68% Confidence Interval
- eV US Large Cap Core Equity Gross

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



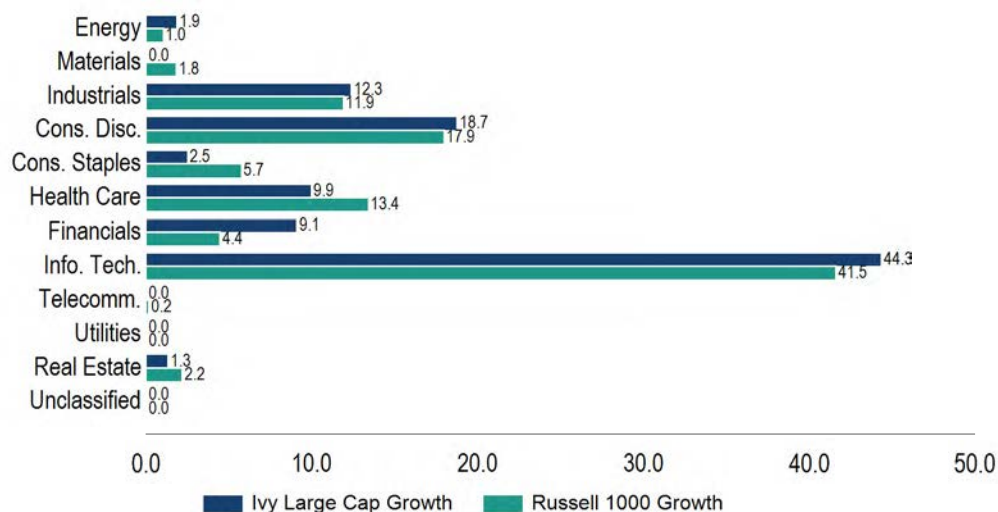
Ivy Large Cap Growth Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	42	542
Weighted Avg. Market Cap. (\$B)	242.36	247.27
Median Market Cap. (\$B)	82.74	11.99
Price To Earnings	51.64	27.41
Price To Book	11.57	8.07
Price To Sales	6.95	5.49
Return on Equity (%)	33.27	30.43
Yield (%)	0.98	1.25
Beta	1.09	1.00

Sector Allocation (%) vs Russell 1000 Growth



*Unclassified includes Cash

Top Holdings Ending Period Weight

MICROSOFT	6.70%	AMAZON.COM
AMAZON.COM	5.51%	SALESFORCE.COM
APPLE	4.77%	FACEBOOK CLASS A
MASTERCARD	4.56%	MASTERCARD
VISA 'A'	4.32%	ADOBE SYSTEMS
SALESFORCE.COM	4.26%	APPLE
CME GROUP	4.05%	VISA 'A'
HOME DEPOT	3.96%	PAYPAL HOLDINGS
PAYPAL HOLDINGS	3.62%	HOME DEPOT
ADOBE SYSTEMS	3.36%	MICROSOFT
Total	45.12%	

Top Contributors

Avg Wgt	Return	Contribution
4.74	17.44	0.83
3.86	17.28	0.67
2.95	21.61	0.64
4.74	12.36	0.59
4.11	12.83	0.53
4.35	10.76	0.47
4.09	10.90	0.45
4.56	9.75	0.45
4.35	10.06	0.44
4.96	8.51	0.42

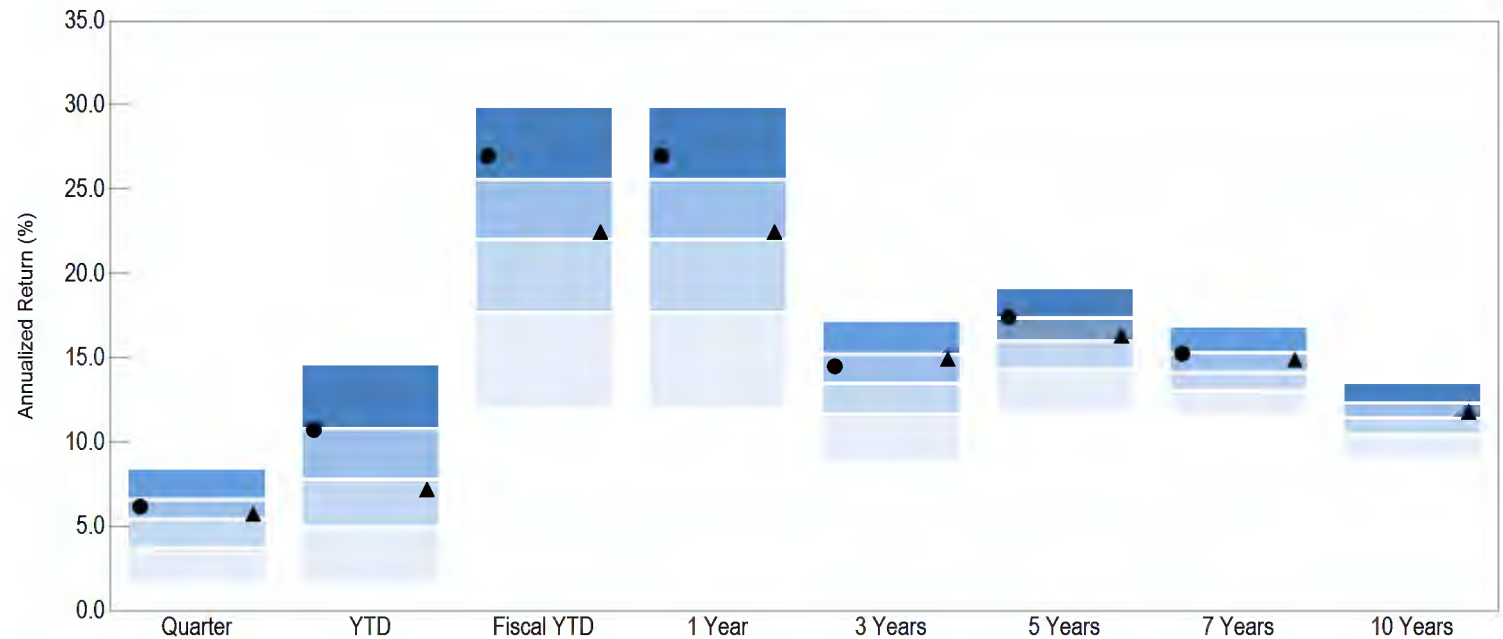
Bottom Contributors

Avg Wgt	Return	Contribution
2.63	-14.46	-0.38
2.69	-12.02	-0.32
2.34	-12.92	-0.30
3.27	-7.48	-0.24
1.35	-17.61	-0.24
1.76	-11.54	-0.20
1.19	-16.61	-0.20
1.79	-3.64	-0.07
3.16	-1.98	-0.06
0.56	-8.48	-0.05

Ivy Large Cap Growth
Cumulative Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

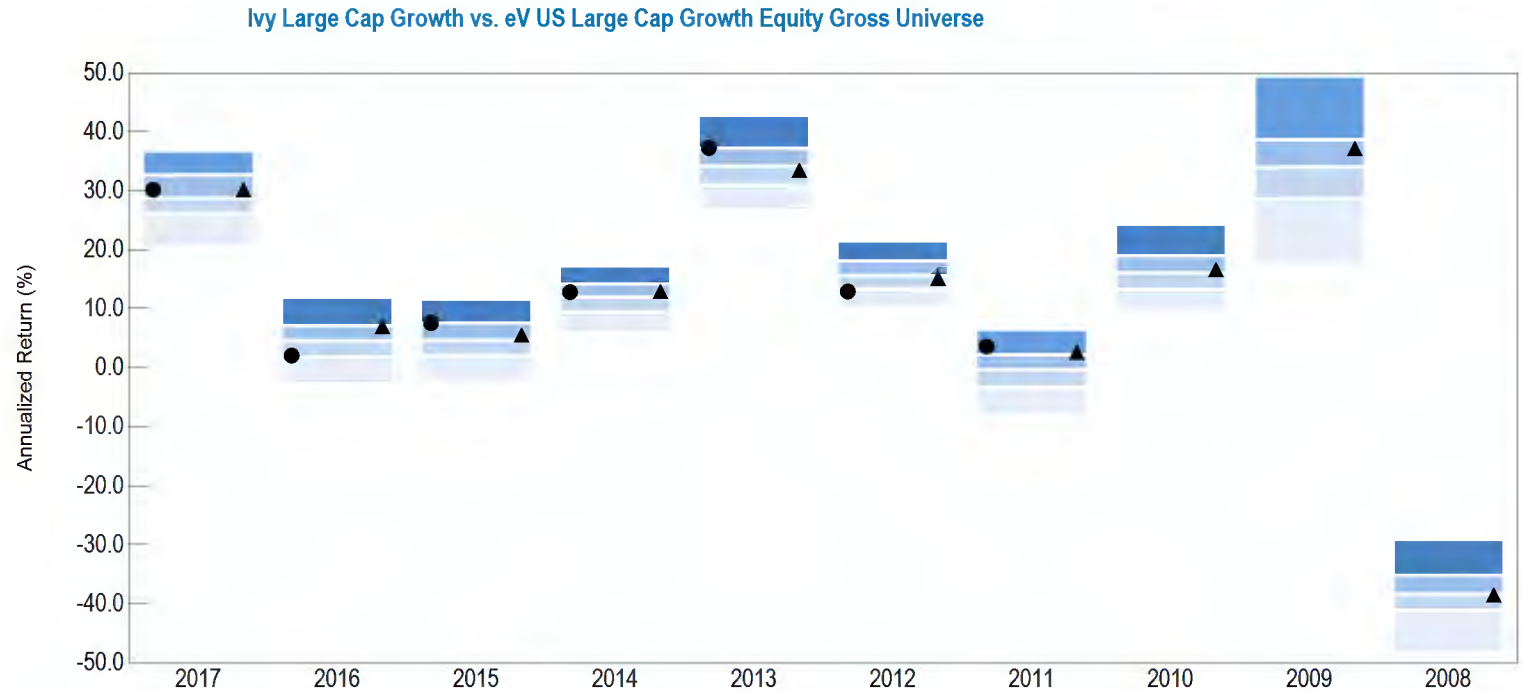
Ivy Large Cap Growth vs. eV US Large Cap Growth Equity Gross Universe



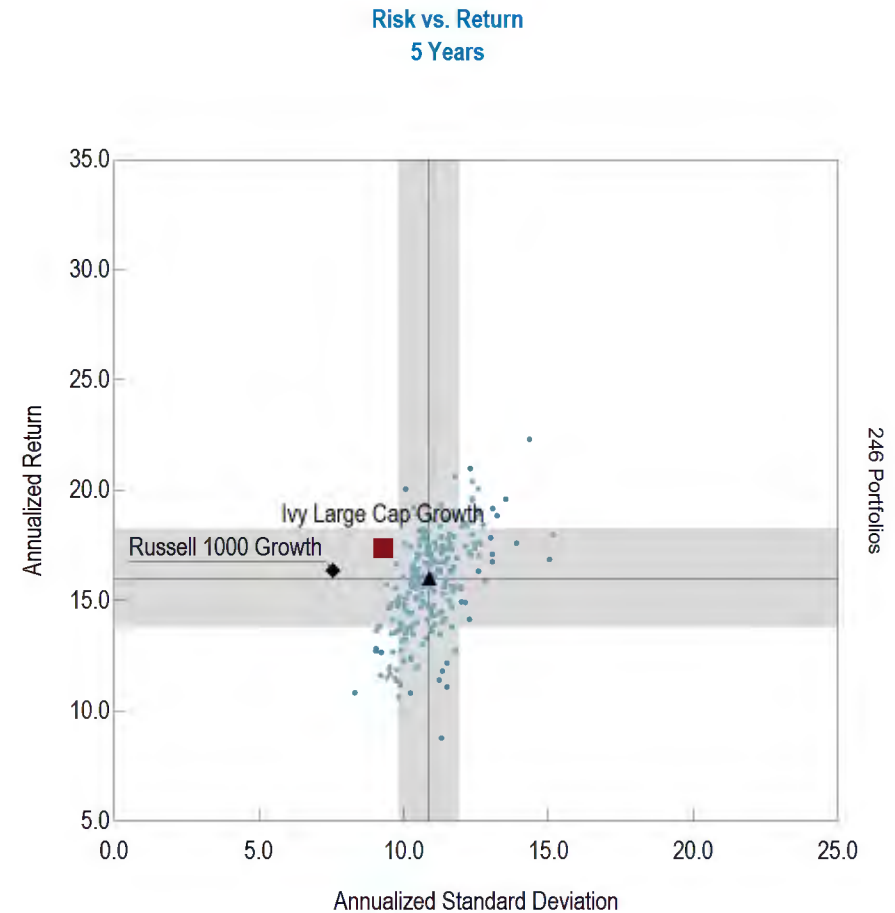
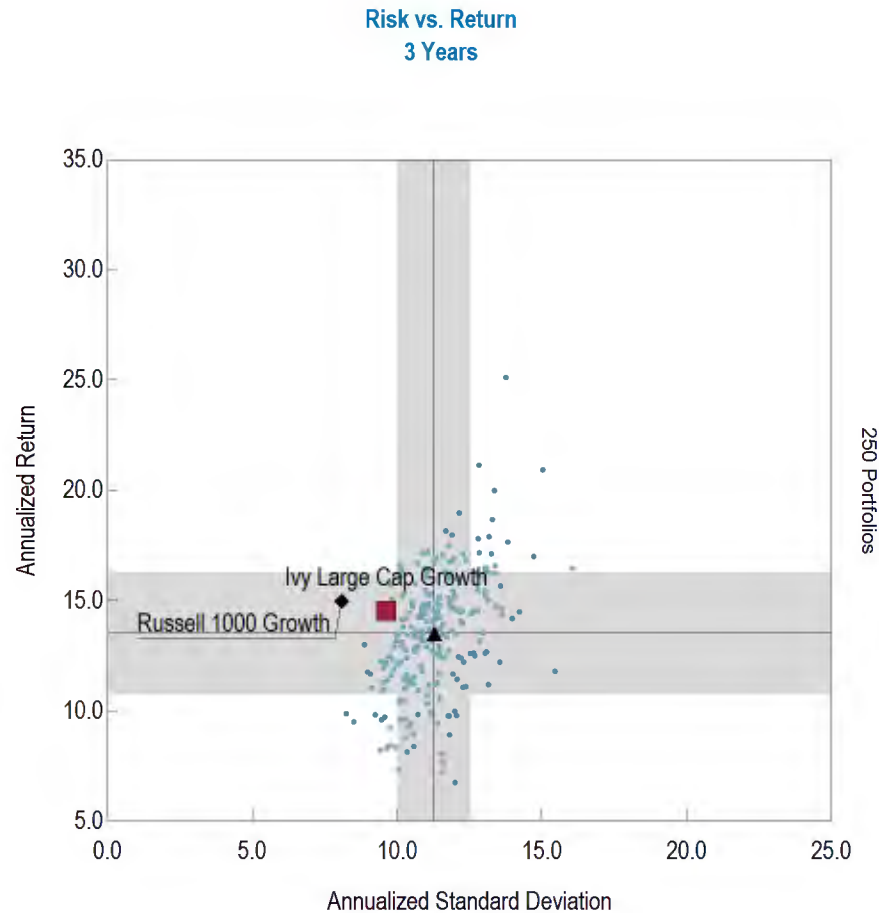
	Return (Rank)													
5th Percentile	8.4		14.7		30.0		30.0		17.2		19.2		16.9	
25th Percentile	6.6		10.8		25.6		25.6		15.2		17.4		15.3	
Median	5.4		7.8		22.0		22.0		13.5		16.0		14.1	
75th Percentile	3.7		5.0		17.7		17.7		11.7		14.3		13.1	
95th Percentile	1.6		1.6		12.1		12.1		8.9		11.7		11.6	
# of Portfolios	256		256		256		256		250		246		229	
● Ivy Large Cap Growth	6.1	(34)	10.7	(26)	27.0	(20)	27.0	(20)	14.5	(37)	17.4	(25)	15.2	(26)
▲ Russell 1000 Growth	5.8	(43)	7.3	(55)	22.5	(46)	22.5	(46)	15.0	(29)	16.4	(44)	14.9	(33)
													11.8	(40)

Ivy Large Cap Growth Consecutive Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018



	Return (Rank)									
5th Percentile	36.7	12.0	11.6	17.3	42.8	21.6	6.4	24.4	49.5	-29.1
25th Percentile	32.7	7.3	7.6	14.3	37.3	18.2	2.2	19.1	38.6	-35.1
Median	28.8	4.6	4.7	12.0	34.3	15.7	-0.3	16.1	34.0	-38.4
75th Percentile	26.2	1.8	2.1	9.5	31.0	13.4	-3.2	13.2	28.7	-41.1
95th Percentile	20.5	-2.7	-2.4	5.8	26.6	10.2	-8.0	9.6	17.7	-48.4
# of Portfolios	265	282	270	291	274	274	294	304	350	381
● Ivy Large Cap Growth	30.2 (42)	2.1 (72)	7.6 (26)	12.8 (40)	37.3 (25)	13.0 (78)	3.6 (17)	-- (--)	-- (--)	-- (--)
▲ Russell 1000 Growth	30.2 (42)	7.1 (26)	5.7 (42)	13.0 (38)	33.5 (56)	15.3 (55)	2.6 (22)	16.7 (46)	37.2 (33)	-38.4 (51)

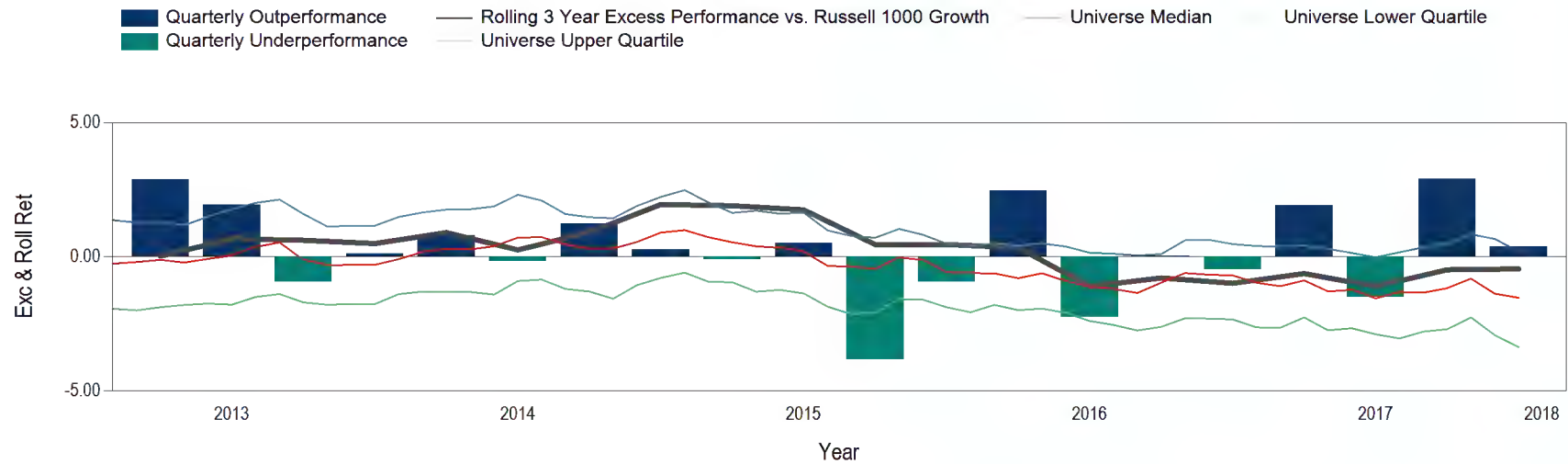


Ivy Large Cap Growth

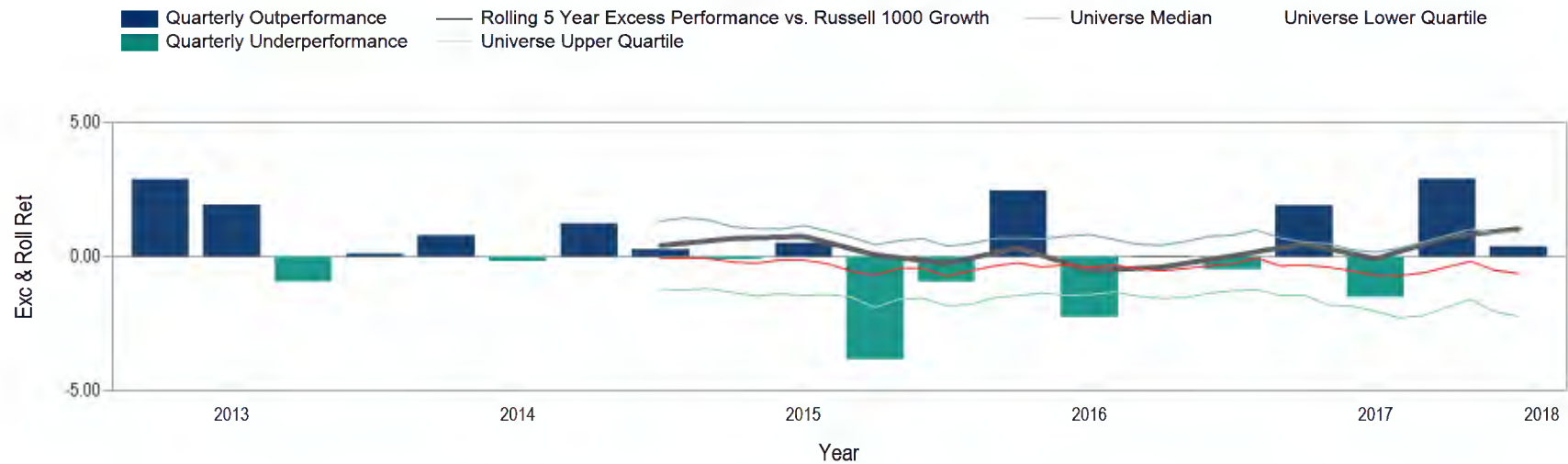
Rolling Return Analysis (Gross of Fees)

Period Ending: June 30, 2018

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



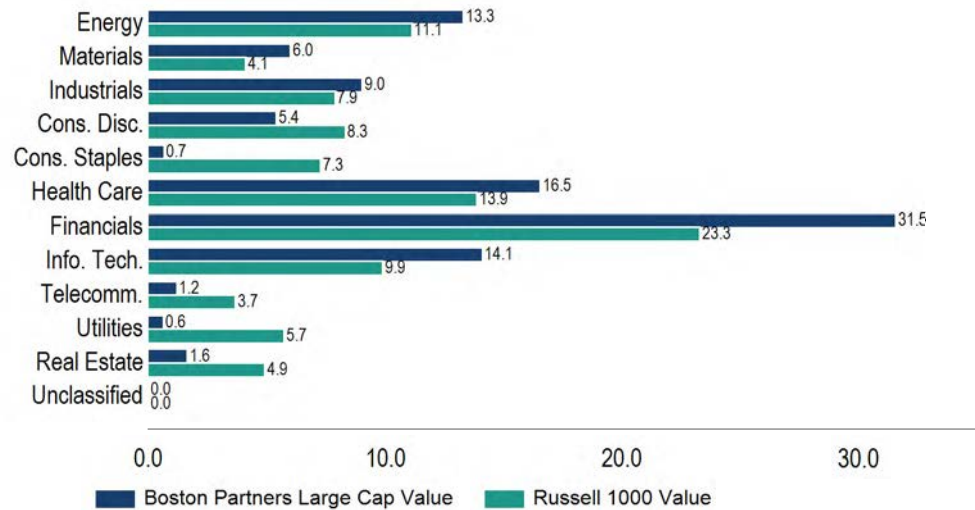
Boston Partners Large Cap Value Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	82	729
Weighted Avg. Market Cap. (\$B)	132.80	110.69
Median Market Cap. (\$B)	34.50	9.57
Price To Earnings	18.94	20.09
Price To Book	2.79	2.59
Price To Sales	2.59	2.99
Return on Equity (%)	15.33	12.33
Yield (%)	2.21	2.48
Beta	1.03	1.00

Sector Allocation (%) vs Russell 1000 Value



*Unclassified includes Cash

Top Holdings Ending Period Weight

BANK OF AMERICA	4.37%	ANDEAVOR
BERKSHIRE HATHAWAY 'B'	3.93%	NETAPP
JP MORGAN CHASE & CO.	3.92%	CHEVRON
JOHNSON & JOHNSON	3.73%	CONOCOPHILLIPS
CITIGROUP	3.61%	MERCK & COMPANY
CISCO SYSTEMS	3.30%	ROYAL DUTCH SHELL A ADR
WELLS FARGO & CO	3.24%	1:2
CHEVRON	2.96%	WELLS FARGO & CO
PFIZER	2.59%	METHANEX
ROYAL DUTCH SHELL A ADR 1:2	2.25%	TJX
Total	33.90%	LABORATORY CORP.OF AM. HDG.

Top Contributors

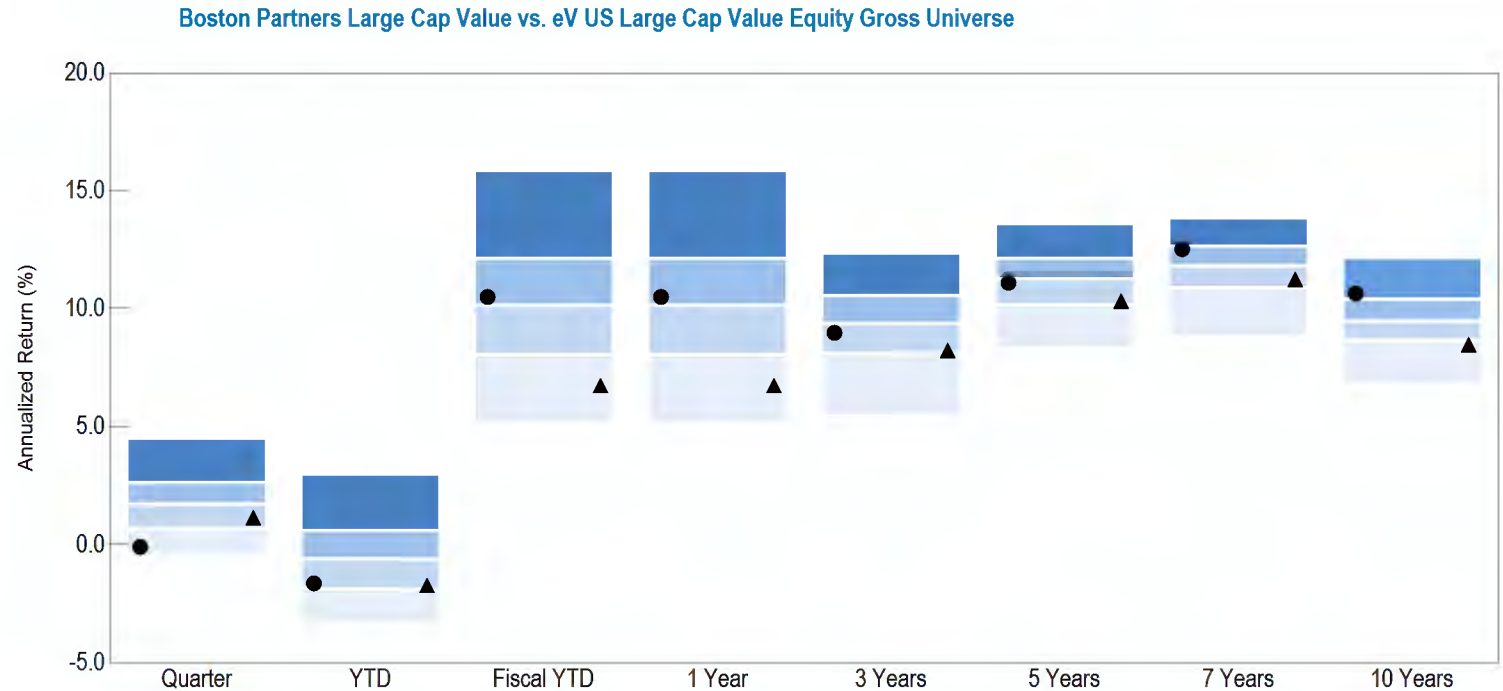
Avg Wgt	Return	Contribution
1.44	30.98	0.45
1.22	27.70	0.34
2.70	11.82	0.32
1.45	17.90	0.26
1.78	12.31	0.22
2.11	9.93	0.21
2.71	6.58	0.18
0.74	17.29	0.13
0.64	17.23	0.11
0.97	10.99	0.11

Bottom Contributors

Avg Wgt	Return	Contribution
4.25	-6.43	-0.27
4.71	-5.61	-0.26
4.19	-4.77	-0.20
2.05	-9.43	-0.19
0.74	-25.91	-0.19
1.56	-12.12	-0.19
1.07	-17.34	-0.19
3.99	-4.61	-0.18
1.10	-13.78	-0.15
2.00	-7.08	-0.14

Boston Partners Large Cap Value
Cumulative Performance Comparison (Gross of Fees)

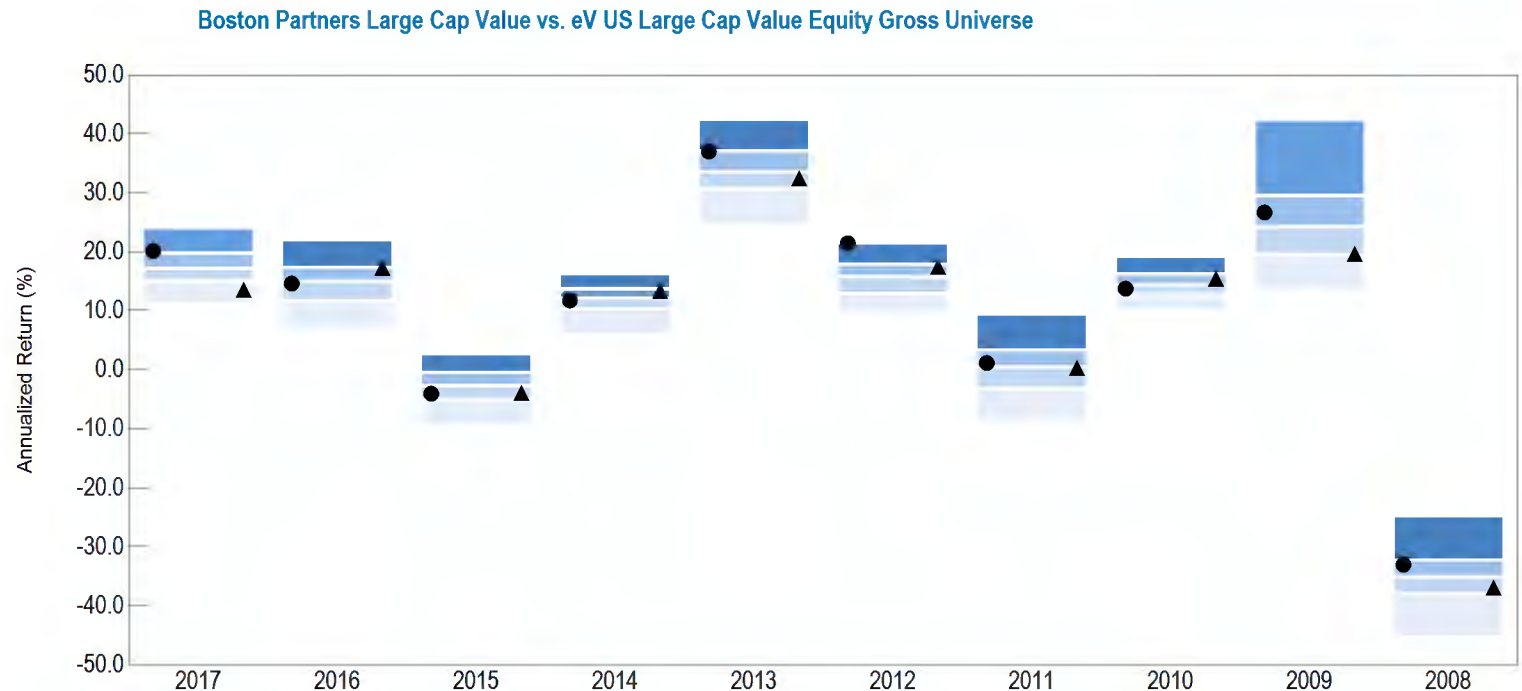
Period Ending: June 30, 2018



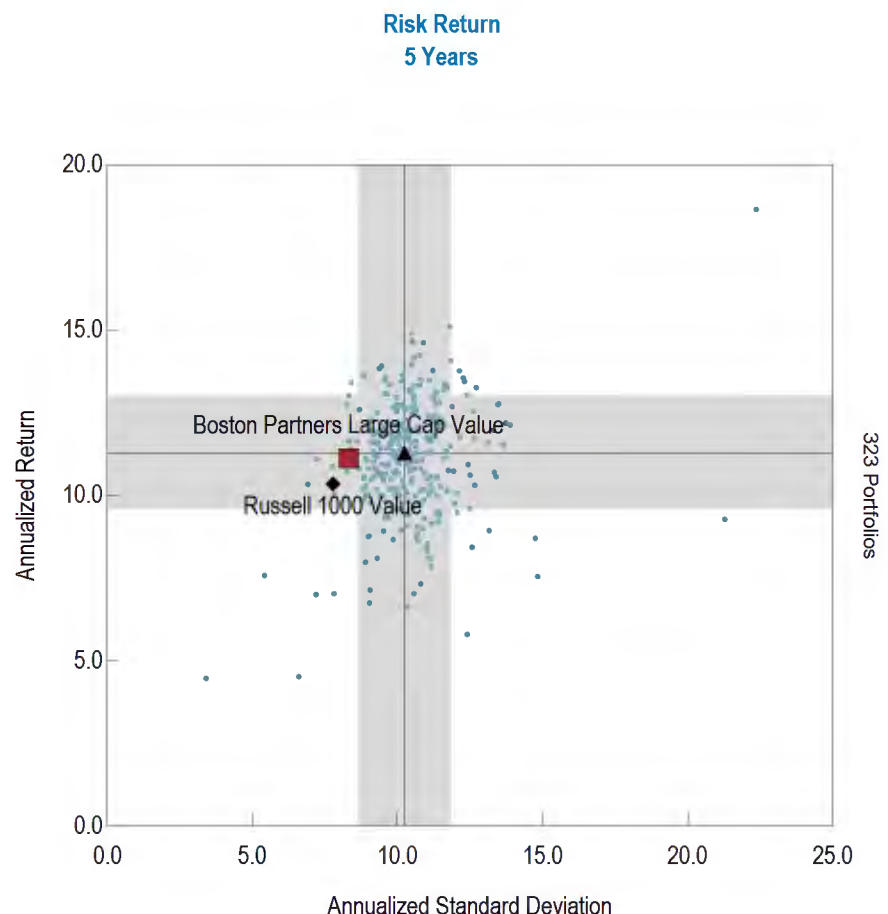
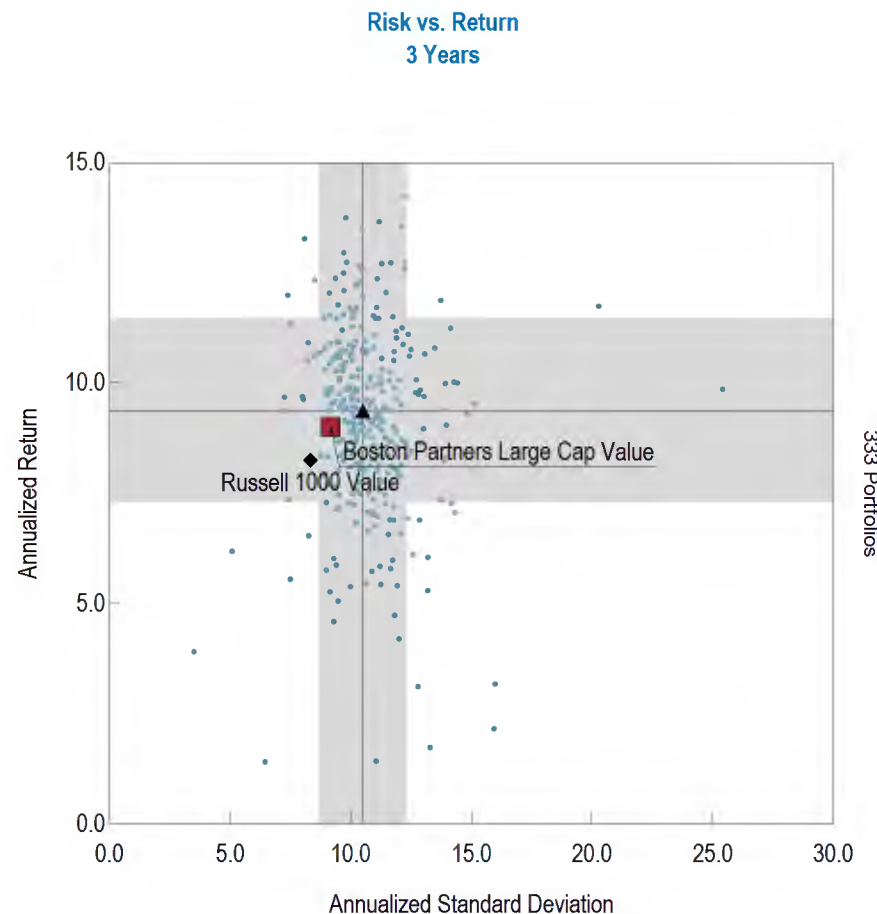
	Return (Rank)															
5th Percentile	4.5		3.0		15.9		15.9		12.4		13.6		13.9		12.1	
25th Percentile	2.6		0.6		12.1		12.1		10.6		12.2		12.7		10.4	
Median	1.7		-0.6		10.2		10.2		9.4		11.3		11.8		9.5	
75th Percentile	0.7		-1.9		8.1		8.1		8.1		10.2		10.9		8.7	
95th Percentile	-0.5		-3.4		5.2		5.2		5.5		8.3		8.8		6.8	
# of Portfolios	336		336		336		336		333		323		297		268	
● Boston Partners Large Cap Value	-0.1	(91)	-1.6	(70)	10.5	(46)	10.5	(46)	9.0	(58)	11.1	(55)	12.5	(30)	10.6	(20)
▲ Russell 1000 Value	1.2	(66)	-1.7	(71)	6.8	(86)	6.8	(86)	8.3	(73)	10.3	(72)	11.3	(65)	8.5	(79)

Boston Partners Large Cap Value Consecutive Performance Comparison (Gross of Fees)

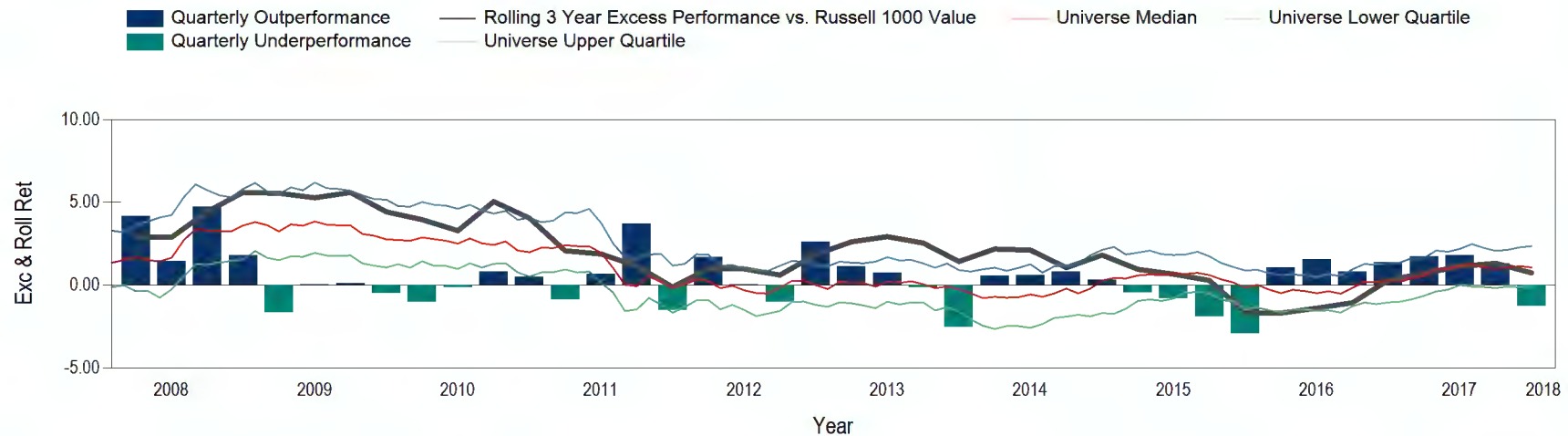
Period Ending: June 30, 2018



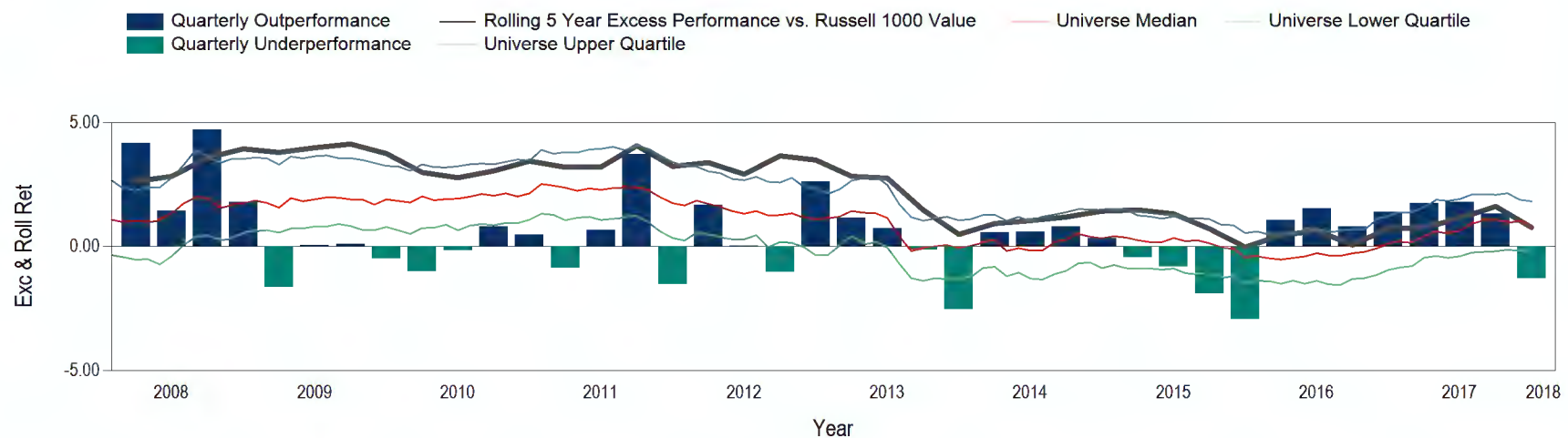
	Return (Rank)									
5th Percentile	24.0	22.1	2.8	16.3	42.5	21.5	9.5	19.2	42.3	-24.7
25th Percentile	19.8	17.4	-0.4	13.9	37.2	18.0	3.4	16.3	29.5	-32.1
Median	17.2	15.0	-2.6	12.2	33.6	15.7	0.5	14.3	24.3	-35.1
75th Percentile	15.1	11.8	-5.1	10.4	30.8	13.0	-3.1	12.7	19.6	-37.9
95th Percentile	11.2	7.0	-9.4	5.9	24.6	9.6	-8.6	10.1	13.5	-45.3
# of Portfolios	342	346	312	307	310	303	310	323	360	376
● Boston Partners Large Cap Value	20.1 (22)	14.7 (54)	-3.9 (65)	11.8 (58)	37.0 (26)	21.5 (6)	1.2 (43)	13.8 (61)	26.7 (35)	-33.0 (30)
▲ Russell 1000 Value	13.7 (87)	17.3 (26)	-3.8 (64)	13.5 (33)	32.5 (60)	17.5 (30)	0.4 (51)	15.5 (35)	19.7 (75)	-36.8 (68)



Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



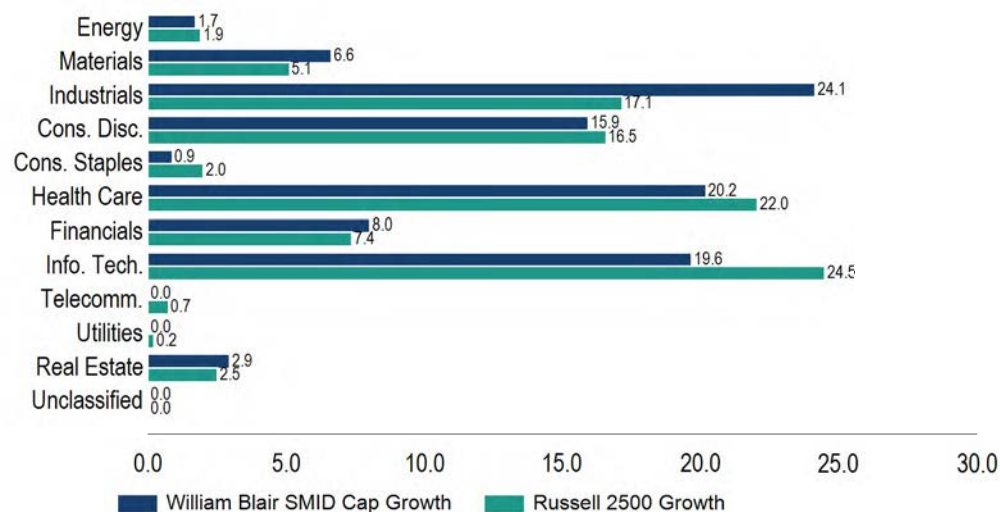
William Blair SMID Cap Growth Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	Russell 2500 Growth
Number of Holdings	74	1,473
Weighted Avg. Market Cap. (\$B)	7.08	4.86
Median Market Cap. (\$B)	5.80	1.29
Price To Earnings	31.39	21.39
Price To Book	6.54	6.44
Price To Sales	4.79	3.92
Return on Equity (%)	19.49	12.66
Yield (%)	0.64	0.61
Beta	0.75	1.00

Sector Allocation (%) vs Russell 2500 Growth



*Unclassified includes Cash

Top Holdings Ending Period Weight

COSTAR GP.	3.20%	ABIOMED
COPART	3.08%	DOMINO'S PIZZA
BWX TECHNOLOGIES	2.68%	TRANSUNION
TRANSUNION	2.37%	WEX
ENCOMPASS HEALTH	2.36%	LIGAND PHARMS.'B'
MARTIN MRTA.MATS.	2.34%	COSTAR GP.
LIGAND PHARMS.'B'	2.30%	DEXCOM
SIX FLAGS ENTM.	2.25%	EXACT SCIS.
BOOZ ALLEN HAMILTN.HLDG.	2.14%	COPART
ADTALEM GLOBAL EDUCATION	1.95%	VAIL RESORTS
Total	24.68%	

Top Contributors

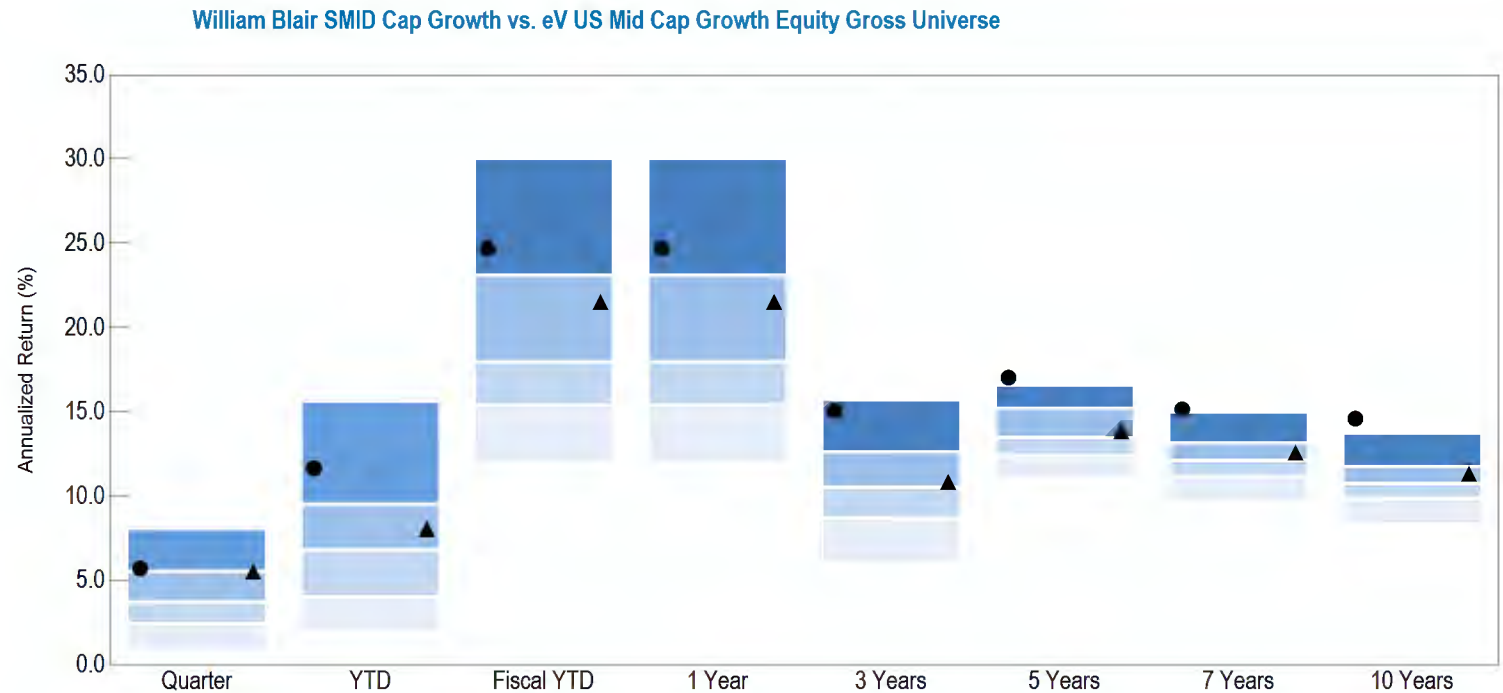
Avg Wgt	Return	Contribution
1.58	40.57	0.64
2.80	21.06	0.59
2.05	26.31	0.54
2.19	21.62	0.47
1.80	25.44	0.46
3.25	13.77	0.45
1.50	28.07	0.42
0.86	48.25	0.42
3.77	11.05	0.42
1.34	24.33	0.33

Bottom Contributors

Avg Wgt	Return	Contribution
0.95	-36.50	-0.35
0.94	-34.85	-0.33
0.96	-31.47	-0.30
1.50	-19.34	-0.29
1.79	-15.65	-0.28
1.30	-19.03	-0.25
1.29	-18.92	-0.24
2.11	-10.23	-0.22
1.30	-16.53	-0.21
1.55	-8.54	-0.13

William Blair SMID Cap Growth Cumulative Performance Comparison (Gross of Fees)

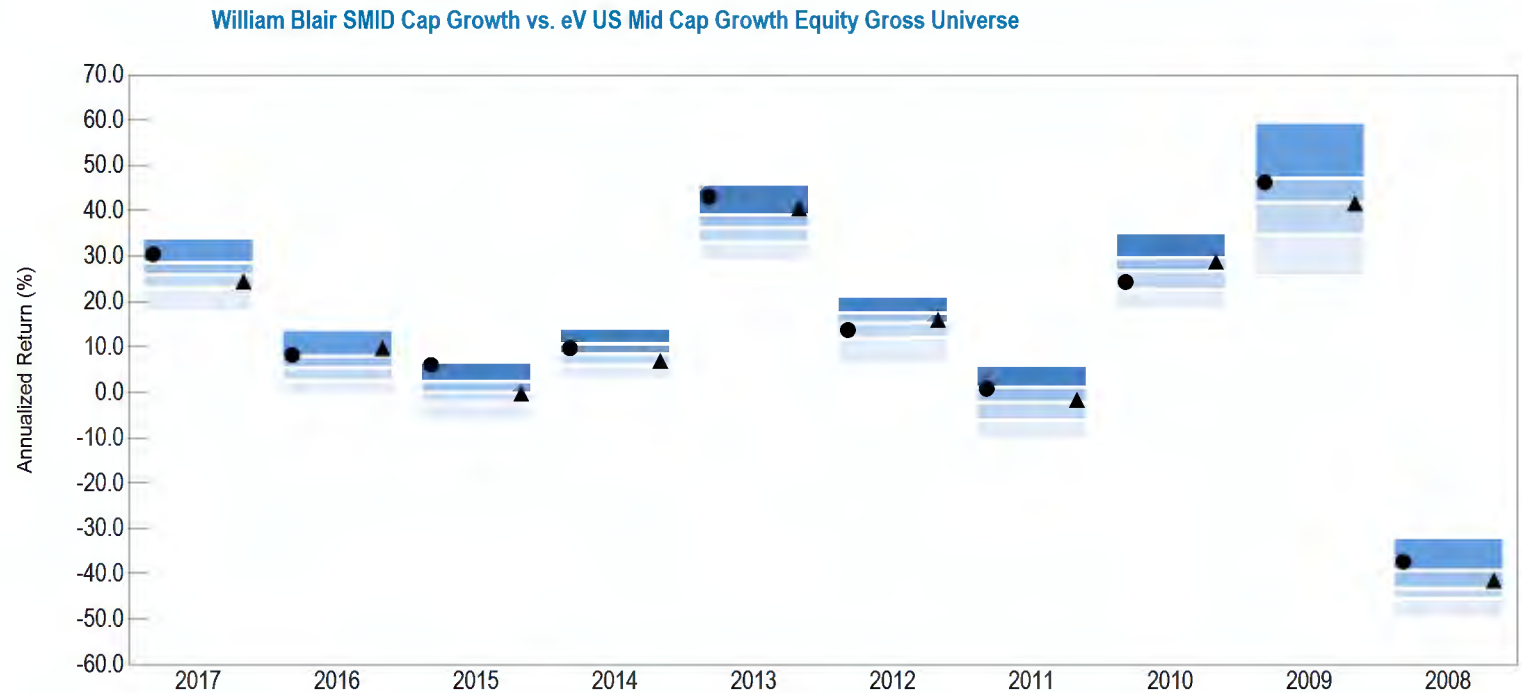
Period Ending: June 30, 2018



	Return (Rank)													
5th Percentile	8.0		15.6		30.1		30.1		15.7		16.6		15.0	
25th Percentile	5.6		9.6		23.1		23.1		12.7		15.2		13.2	
Median	3.7		6.8		18.0		18.0		10.5		13.5		12.1	
75th Percentile	2.4		4.0		15.4		15.4		8.7		12.4		11.2	
95th Percentile	0.8		1.9		11.9		11.9		6.0		11.1		9.7	
# of Portfolios	96		96		96		96		95		92		87	
● William Blair SMID Cap Growth	5.7	(25)	11.6	(19)	24.7	(17)	24.7	(17)	15.0	(8)	17.0	(4)	15.2	(4)
▲ Russell 2500 Growth	5.5	(26)	8.0	(41)	21.5	(37)	21.5	(37)	10.9	(46)	13.9	(42)	12.6	(38)

William Blair SMID Cap Growth
Consecutive Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018



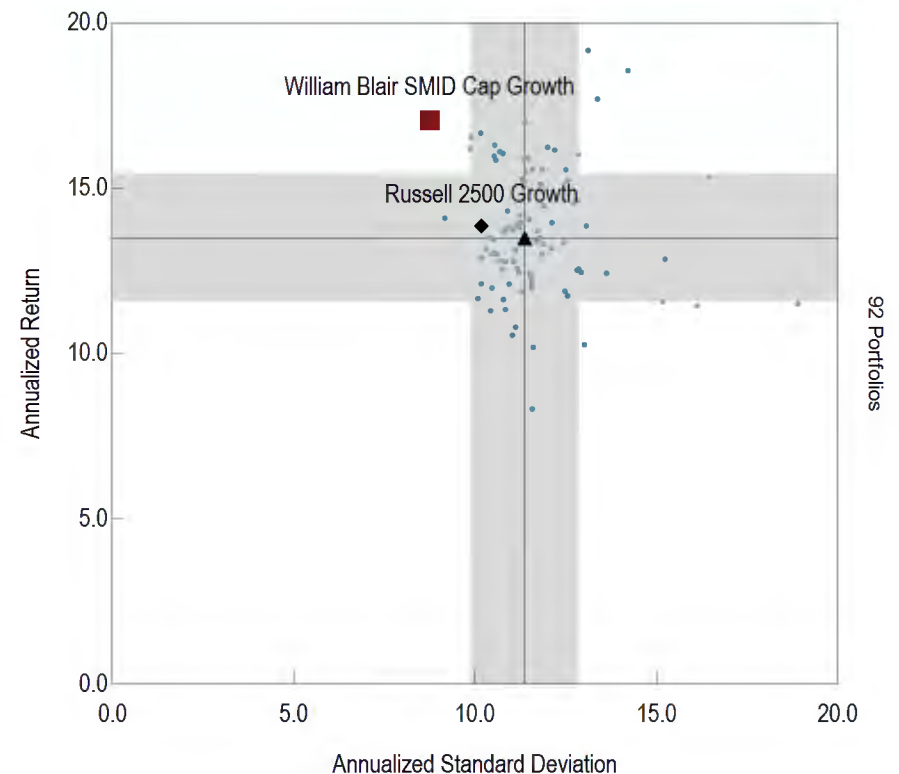
	Return (Rank)									
5th Percentile	34.0	13.9	6.7	14.2	46.0	21.3	6.1	35.3	59.6	-32.0
25th Percentile	28.7	8.0	2.5	10.9	39.2	17.6	1.3	29.8	47.2	-39.3
Median	25.9	5.4	0.0	8.6	36.4	15.4	-2.1	26.7	41.9	-43.2
75th Percentile	23.1	2.6	-2.1	6.1	33.2	12.2	-6.1	22.5	34.9	-45.5
95th Percentile	17.7	-0.5	-6.3	2.6	29.0	6.0	-10.4	18.3	25.7	-49.8
# of Portfolios	97	105	105	117	106	111	122	127	142	158
● William Blair SMID Cap Growth	30.4 (16)	8.2 (22)	6.1 (7)	9.8 (33)	43.1 (11)	13.8 (68)	0.9 (28)	24.4 (65)	46.3 (30)	-37.4 (19)
▲ Russell 2500 Growth	24.5 (62)	9.7 (13)	-0.2 (55)	7.1 (65)	40.7 (17)	16.1 (44)	-1.6 (46)	28.9 (35)	41.7 (51)	-41.5 (39)

Risk vs. Return
3 Years



- William Blair SMID Cap Growth
- ◆ Russell 2500 Growth
- ▲ Universe Median
- 68% Confidence Interval
- eV US Mid Cap Growth Equity Gross

Risk vs. Return
5 Years

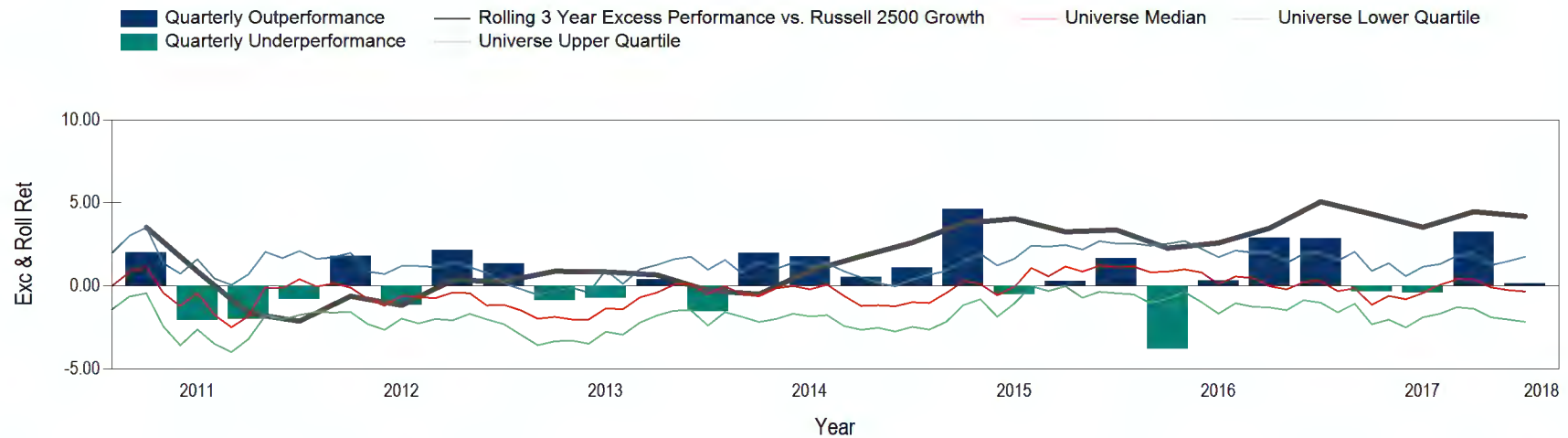


- William Blair SMID Cap Growth
- ◆ Russell 2500 Growth
- ▲ Universe Median
- 68% Confidence Interval
- eV US Mid Cap Growth Equity Gross

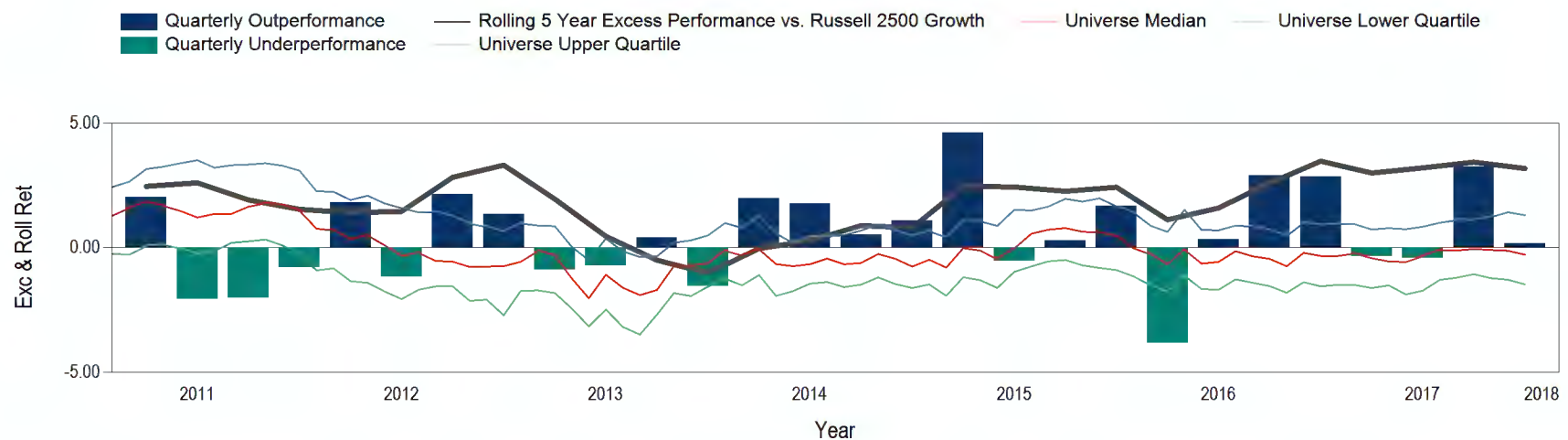
William Blair SMID Cap Growth Rolling Return Analysis (Gross of Fees)

Period Ending: June 30, 2018

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



Lee Munder Small Value Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	91	1,364
Weighted Avg. Market Cap. (\$B)	3.21	2.05
Median Market Cap. (\$B)	2.89	0.81
Price To Earnings	15.96	15.57
Price To Book	2.33	1.73
Price To Sales	2.32	2.59
Return on Equity (%)	11.34	7.16
Yield (%)	1.53	1.78
Beta	0.82	1.00

Sector Allocation (%) vs Russell 2000 Value



*Unclassified includes Cash

Top Holdings Ending Period Weight

MACOM TECH.SLTN.HDG.	2.57%
STERLING BANCORP	2.16%
FNB	1.95%
IBERIABANK	1.95%
NATIONAL GENERAL HDG.	1.95%
BANKUNITED	1.85%
TEAM	1.85%
BLACKSTONE MGE.TST.CL.A	1.75%
HANOVER INSURANCE GROUP	1.75%
TREEHOUSE FOODS	1.75%
Total	19.55%

Top Contributors

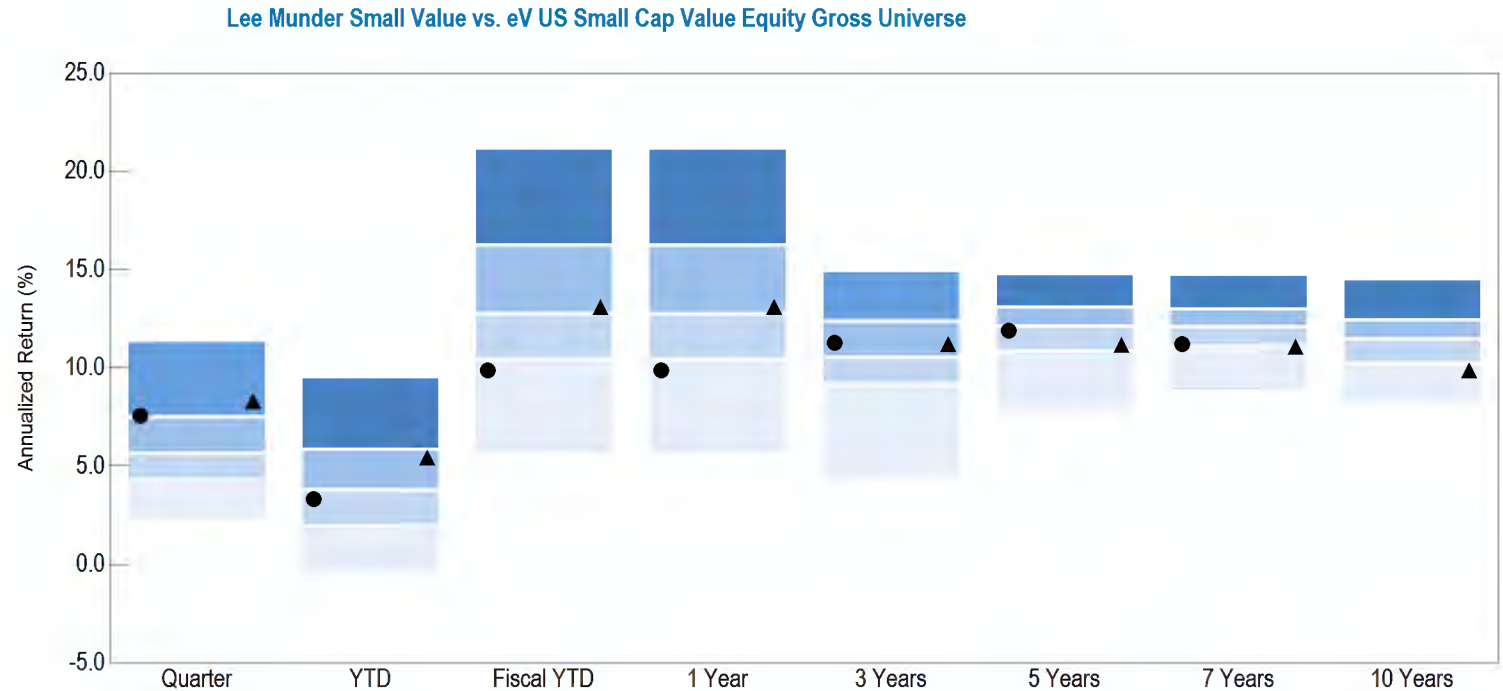
	Avg Wgt	Return	Contribution
TEAM	1.21	68.00	0.82
MACOM TECH.SLTN.HDG.	2.02	38.80	0.78
CARRIZO O&G.	0.81	74.06	0.60
KORN FERRY INTERNATIONAL	1.92	20.23	0.39
ENCOMPASS HEALTH	1.92	18.89	0.36
TREEHOUSE FOODS	0.91	37.21	0.34
EDUCATION REAL.TST.	1.01	28.24	0.29
ENVISION HEALTHCARE	1.72	14.52	0.25
PRESTIGE BRANDS HOLDINGS	1.72	13.82	0.24
MB FINANCIAL	1.41	15.92	0.23

Bottom Contributors

	Avg Wgt	Return	Contribution
CALLON PTL.DEL.	1.01	-18.88	-0.19
OWENS ILLINOIS NEW	0.81	-22.39	-0.18
HORIZON GLOBAL	0.61	-27.67	-0.17
DIEBOLD NIXDORF	0.71	-22.40	-0.16
TENNECO	0.81	-19.44	-0.16
FEDERATED INVRS.'B'	0.51	-29.42	-0.15
ENPRO INDS.	1.31	-9.31	-0.12
TRIUMPH GROUP NEW	0.51	-22.08	-0.11
HOSTESS BRANDS CL.A	1.31	-8.05	-0.11
MILACRON HOLDINGS	1.31	-6.01	-0.08

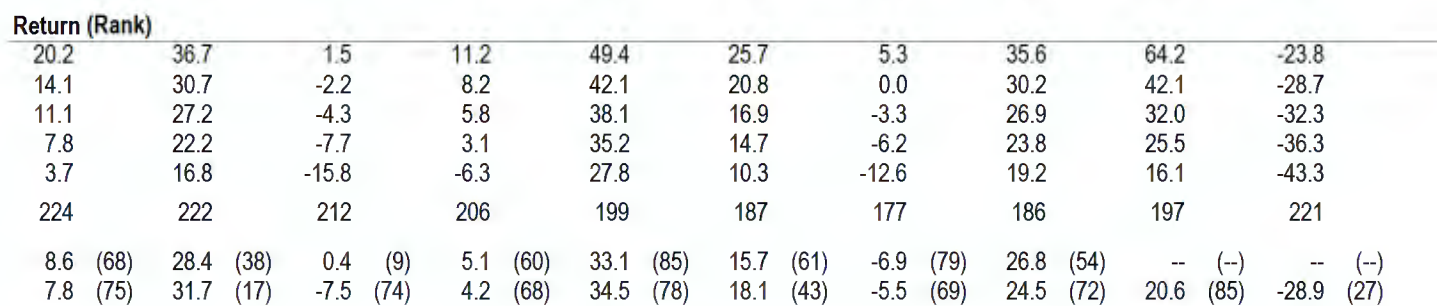
Lee Munder Small Value
Cumulative Performance Comparison (Gross of Fees)

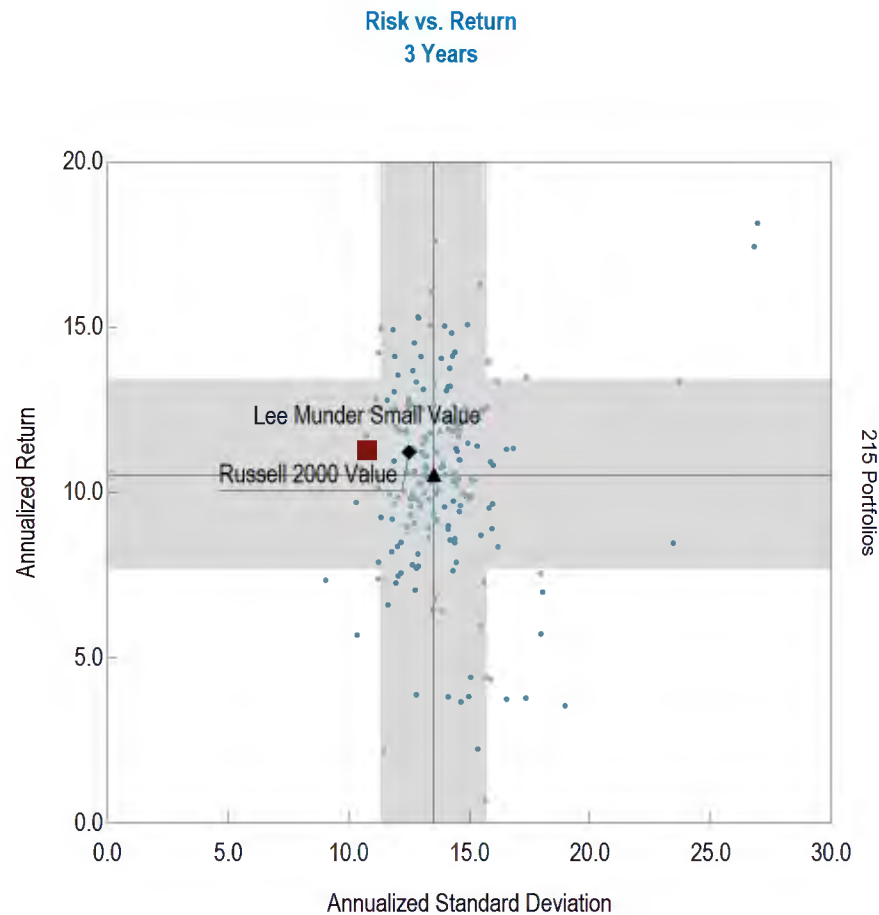
Period Ending: June 30, 2018



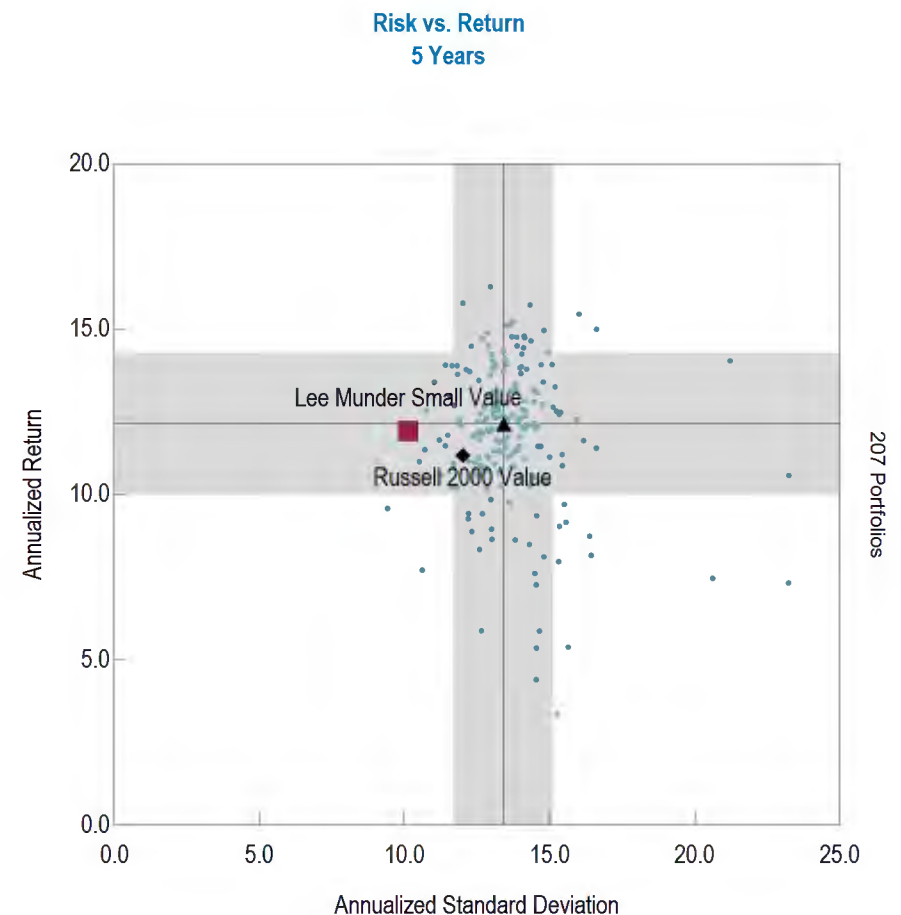
	Return (Rank)											
5th Percentile	11.4		9.6		21.2		21.2		14.9		14.8	
25th Percentile	7.5		5.9		16.3		16.3		12.4		13.1	
Median	5.7		3.8		12.8		12.8		10.5		12.1	
75th Percentile	4.3		1.9		10.4		10.4		9.2		10.9	
95th Percentile	2.3		-0.5		5.6		5.6		4.4		7.8	
# of Portfolios	223		223		223		223		215		207	
● Lee Munder Small Value	7.5	(24)	3.3	(58)	9.9	(81)	9.9	(81)	11.3	(40)	11.9	(56)
▲ Russell 2000 Value	8.3	(19)	5.4	(29)	13.1	(47)	13.1	(47)	11.2	(42)	11.2	(69)
											11.2	(74)
											11.1	(77)
											--	(--)
											9.9	(84)

Period Ending: June 30, 2018





- Lee Munder Small Value
- ◆ Russell 2000 Value
- ▲ Universe Median
- 68% Confidence Interval
- eV US Small Cap Value Equity Gross

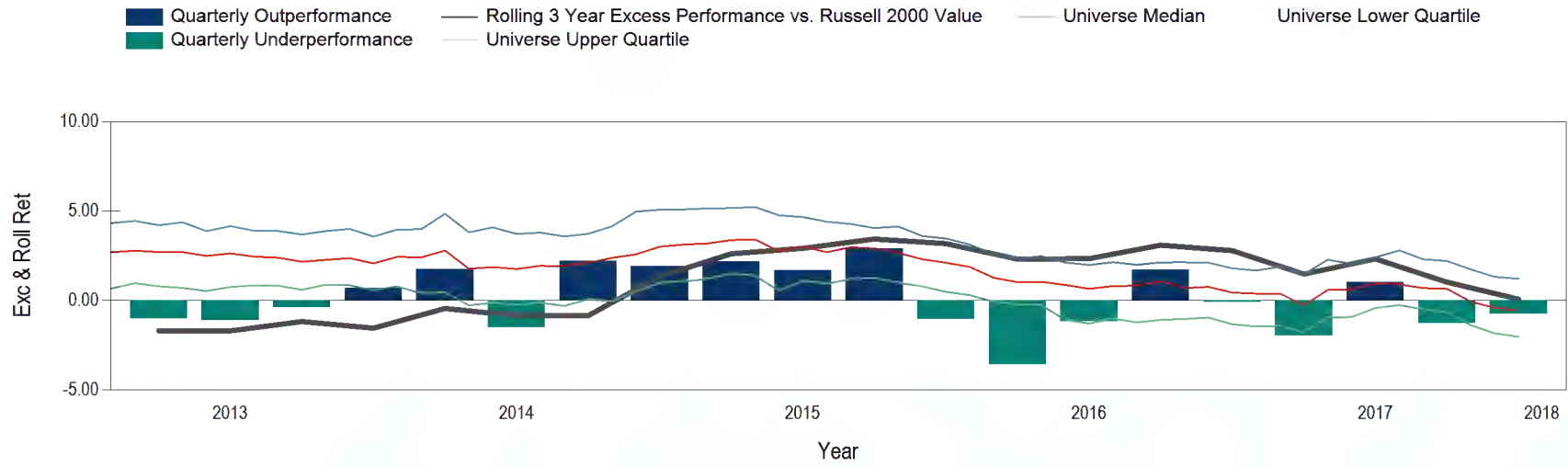


- Lee Munder Small Value
- ◆ Russell 2000 Value
- ▲ Universe Median
- 68% Confidence Interval
- eV US Small Cap Value Equity Gross

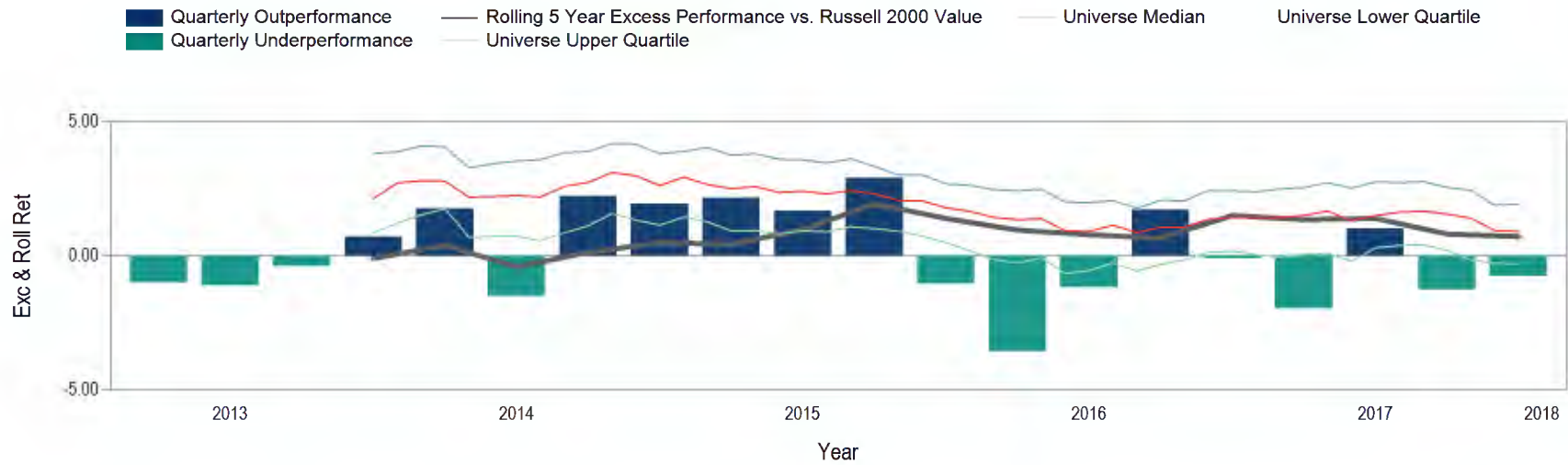
Lee Munder Small Value
Rolling Return Analysis (Gross of Fees)

Period Ending: June 30, 2018

Rolling 3 Year Annualized Excess Performance



Rolling 5 Year Annualized Excess Performance



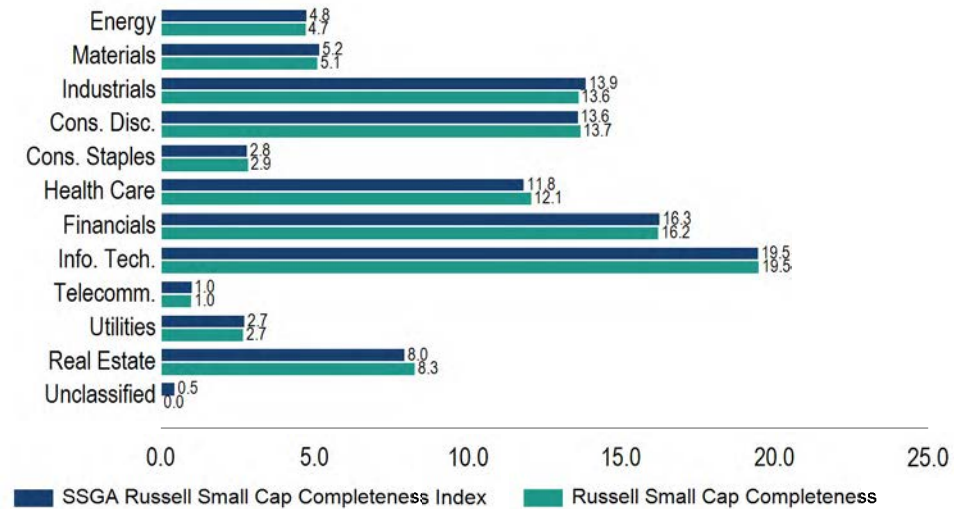
SSGA Russell Small Cap Completeness Index Manager Portfolio Overview

Period Ending: June 30, 2018

Characteristics

	Portfolio	Russell Small Cap Completeness
Number of Holdings	2,504	2,503
Weighted Avg. Market Cap. (\$B)	6.96	6.90
Median Market Cap. (\$B)	1.28	1.28
Price To Earnings	23.47	19.83
Price To Book	4.60	3.56
Price To Sales	3.93	3.61
Return on Equity (%)	9.38	10.39
Yield (%)	1.36	1.13
Beta	1.00	1.00

Sector Allocation (%) vs Russell Small Cap Completeness



*Unclassified includes Cash

Top Holdings Ending Period Weight

	Weight	Company
TESLA	0.92%	TESLA
NXP SEMICONDUCTORS	0.76%	TWITTER
SERVICENOW	0.60%	ABIOMED
LAS VEGAS SANDS	0.54%	HOLLYFRONTIER
WORLDPAY A	0.48%	SAREPTA THERAPEUTICS
T-MOBILE US	0.37%	LULULEMON ATHLETICA
PALO ALTO NETWORKS	0.36%	SQUARE CL.A
SQUARE CL.A	0.34%	TRANSUNION
WORKDAY CLASS A	0.33%	CHENIERE EN.
BIOMARIN PHARM.	0.33%	FIRST DATA CL.A
Total	5.03%	

Top Contributors

Avg Wgt	Return	Contribution
0.75	28.87	0.22
0.42	50.53	0.21
0.25	40.57	0.10
0.19	40.69	0.08
0.09	78.40	0.07
0.18	40.09	0.07
0.25	25.28	0.06
0.21	26.31	0.06
0.23	21.96	0.05
0.16	30.81	0.05

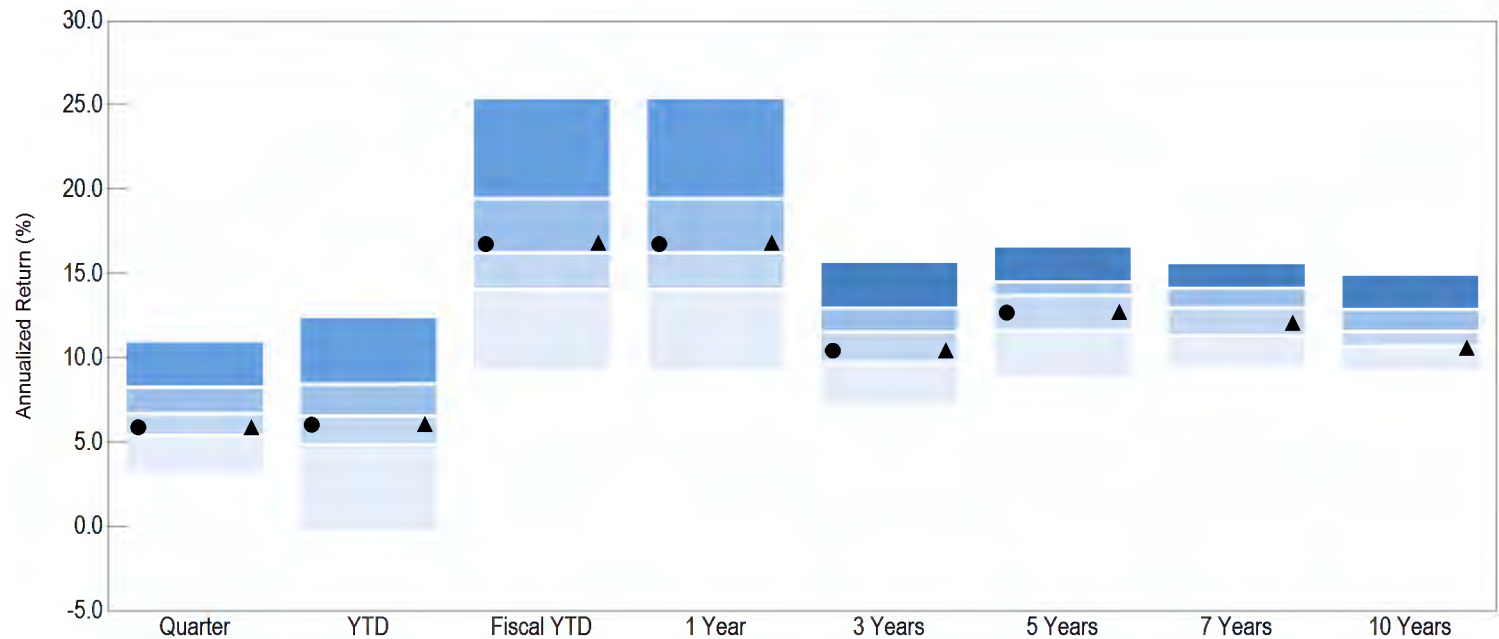
Bottom Contributors

Avg Wgt	Return	Contribution
0.84	-6.61	-0.06
0.19	-28.99	-0.05
0.16	-26.93	-0.04
0.16	-24.39	-0.04
0.19	-21.18	-0.04
0.25	-15.69	-0.04
0.22	-17.30	-0.04
0.21	-16.16	-0.03
0.19	-16.52	-0.03
0.12	-25.81	-0.03

SSGA Russell Small Cap Completeness Index Cumulative Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

SSGA Russell Small Cap Completeness Index vs. eV US Small Cap Core Equity Gross Universe



	Return (Rank)													
5th Percentile	11.0		12.4		25.4		25.4		15.7		16.7		15.7	
25th Percentile	8.3		8.5		19.5		19.5		13.0		14.5		14.2	
Median	6.7		6.6		16.2		16.2		11.5		13.7		13.0	
75th Percentile	5.4		4.9		14.1		14.1		9.7		11.7		11.3	
95th Percentile	3.1		-0.3		9.3		9.3		7.1		8.8		9.3	
# of Portfolios	165		165		165		165		160		153		144	
● SSGA Russell Small Cap Completeness Index	5.9	(64)	6.1	(55)	16.8	(47)	16.8	(47)	10.4	(66)	12.7	(66)	--	(--)
▲ Russell Small Cap Completeness	5.9	(64)	6.1	(55)	16.9	(45)	16.9	(45)	10.5	(65)	12.8	(64)	12.1	(65)

Total International Equity Asset Class Overview (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total International Equity	274,537,679	-3.7	-4.2	6.4	6.4	5.3	6.3	1.6	26.9	6.2	-5.9	-4.8	18.5
MSCI ACWI ex USA Gross		-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8
InvestorForce Public DB ex-US Eq Gross Rank		66	76	79	79	70	76	94	80	13	85	83	44
SSGA MSCI ACWI Ex US Index Fund	94,636,369	-2.5	-3.6	7.6	7.6	5.3	6.3	--	27.6	4.8	-5.5	-3.6	15.5
MSCI ACWI ex USA Gross		-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
eV All EAFE Equity Gross Rank		76	75	57	57	70	89	--	49	17	96	49	90
PIMCO RAE Fundamental Global Ex US Fund	93,952,910	-5.0	-5.4	6.6	6.6	5.8	6.9	--	26.7	13.5	-10.9	-5.7	24.5
MSCI ACWI ex USA Gross		-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
eV All EAFE Equity Gross Rank		98	93	69	69	60	73	--	53	1	99	79	51
SGA Global Growth	85,935,874	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI ex USA Gross		--	--	--	--	--	--	--	--	--	--	--	--
eV ACWI ex-US Core Equity Gross Rank		--	--	--	--	--	--	--	--	--	--	--	--

EAFE Effective Style Map
3 Years



EAFE Effective Style Map
5 Years



Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US). Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total International Equity Asset Class Overview (Net of Fees)

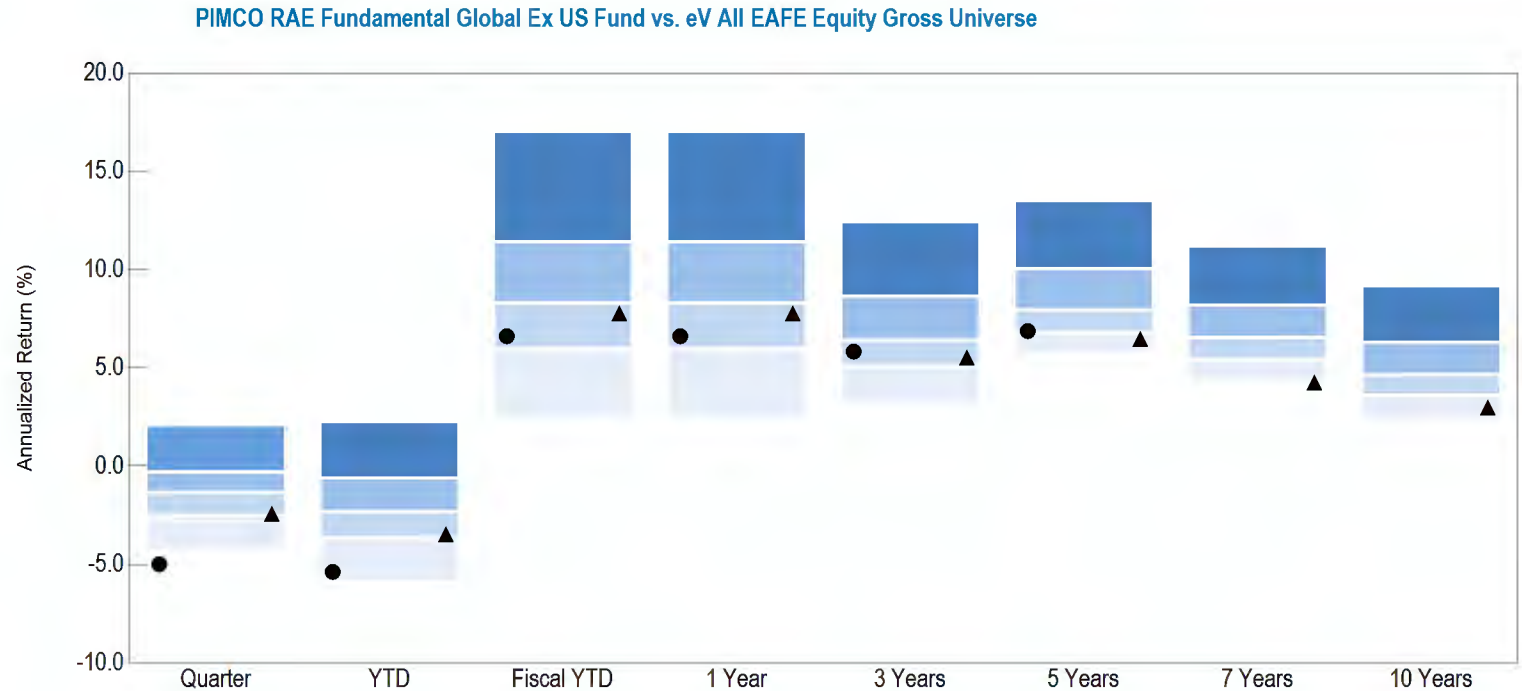
Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total International Equity	274,537,679	-3.7	-4.4	6.0	6.0	4.9	6.0	1.2	26.5	5.9	-6.2	-5.0	18.3
MSCI ACWI ex USA Gross		-2.4	-3.4	7.8	7.8	5.6	6.5	3.0	27.8	5.0	-5.3	-3.4	15.8
SSGA MSCI ACWI Ex US Index Fund	94,636,369	-2.5	-3.6	7.5	7.5	5.3	6.2	--	27.5	4.7	-5.5	-3.7	15.5
MSCI ACWI ex USA Gross		-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
PIMCO RAE Fundamental Global Ex US Fund	93,952,910	-5.1	-5.6	6.1	6.1	5.3	6.4	--	26.0	13.0	-11.4	-5.9	23.7
MSCI ACWI ex USA Gross		-2.4	-3.4	7.8	7.8	5.6	6.5	--	27.8	5.0	-5.3	-3.4	15.8
SGA Global Growth	85,935,874	--	--	--	--	--	--	--	--	--	--	--	--
MSCI ACWI ex USA Gross		--	--	--	--	--	--	--	--	--	--	--	--

Research Affiliates converted to PIMCO RAE Fundamental Global Ex US Fund on 6/5/15 (performance prior to this date represents previously held Enhanced RAFI Global ex US).

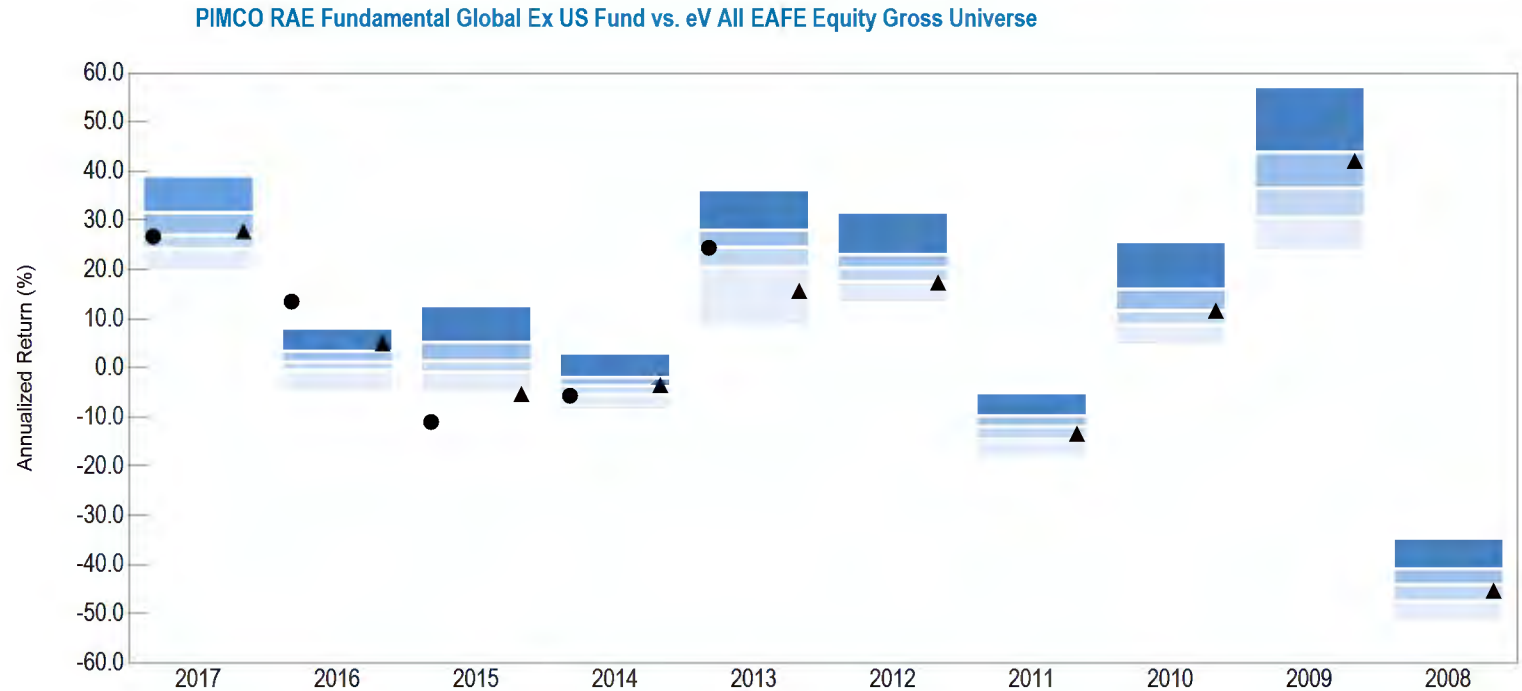
PIMCO RAE Fundamental Global Ex US Fund Cumulative Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018



PIMCO RAE Fundamental Global Ex US Fund
Consecutive Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

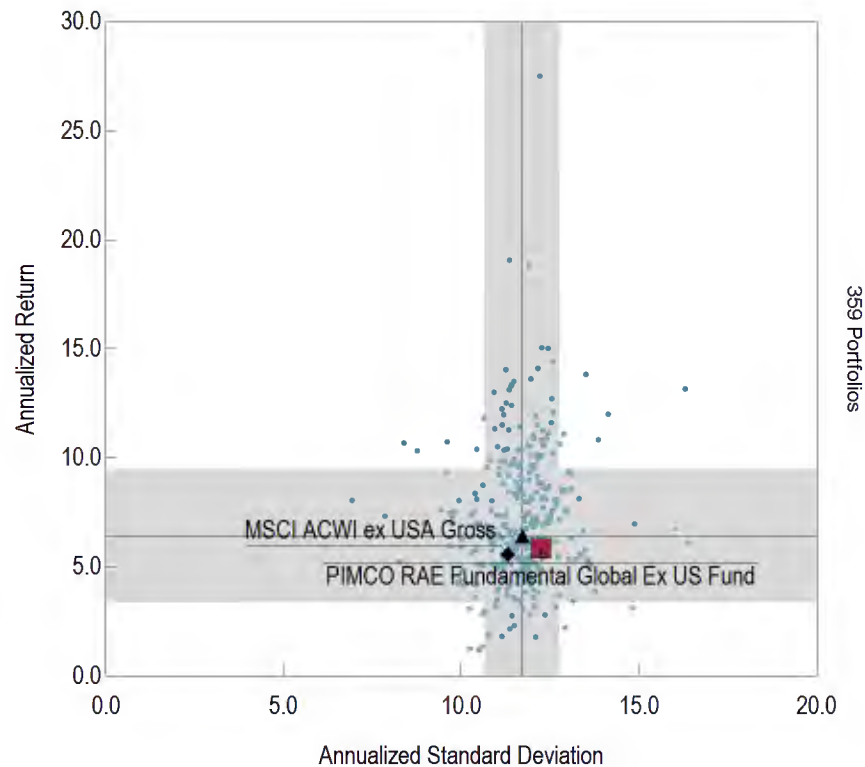


	Return (Rank)															
5th Percentile	39.0		8.1		12.6		3.0		36.3		31.7		-5.1		25.7	
25th Percentile	31.6		3.4		5.2		-1.9		28.1		23.1		-9.7		16.1	
Median	27.0		1.3		1.4		-3.7		24.6		20.4		-12.0		11.7	
75th Percentile	24.3		-0.6		-0.9		-5.4		20.5		17.5		-14.5		8.7	
95th Percentile	19.7		-4.9		-5.4		-8.6		8.6		13.3		-18.2		4.6	
# of Portfolios	370		350		325		314		284		263		278		352	
● PIMCO RAE Fundamental Global Ex US Fund	26.7	(53)	13.5	(1)	-10.9	(99)	-5.7	(79)	24.5	(51)	--	(--)	--	(--)	--	(--)
▲ MSCI ACWI ex USA Gross	27.8	(48)	5.0	(16)	-5.3	(95)	-3.4	(47)	15.8	(90)	17.4	(77)	-13.3	(62)	11.6	(52)

PIMCO RAE Fundamental Global Ex US Fund Risk vs Return Three & Five Year (Gross of Fees)

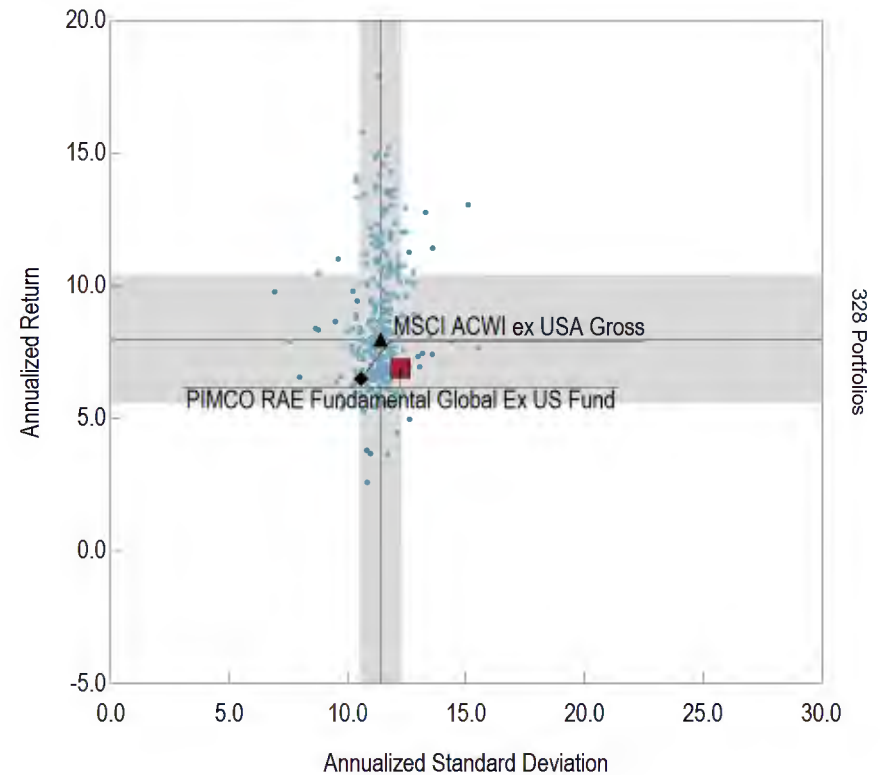
Period Ending: June 30, 2018

Risk vs. Return
3 Years



- PIMCO RAE Fundamental Global Ex US Fund
- ◆ MSCI ACWI ex USA Gross
- ▲ Universe Median
- 68% Confidence Interval
- eV All EAFE Equity Gross

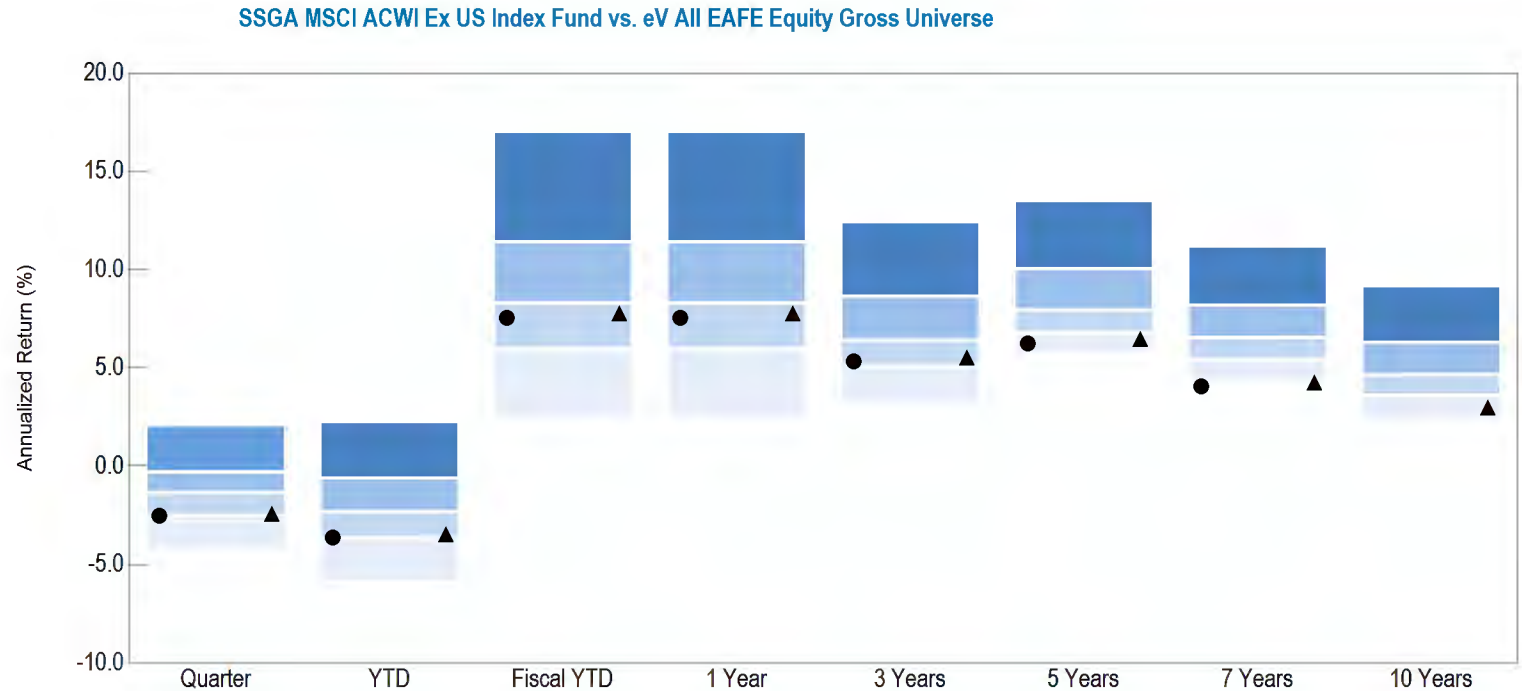
Risk vs. Return
5 Years



- PIMCO RAE Fundamental Global Ex US Fund
- ◆ MSCI ACWI ex USA Gross
- ▲ Universe Median
- 68% Confidence Interval
- eV All EAFE Equity Gross

SSGA MSCI ACWI Ex US Index Fund
Cumulative Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

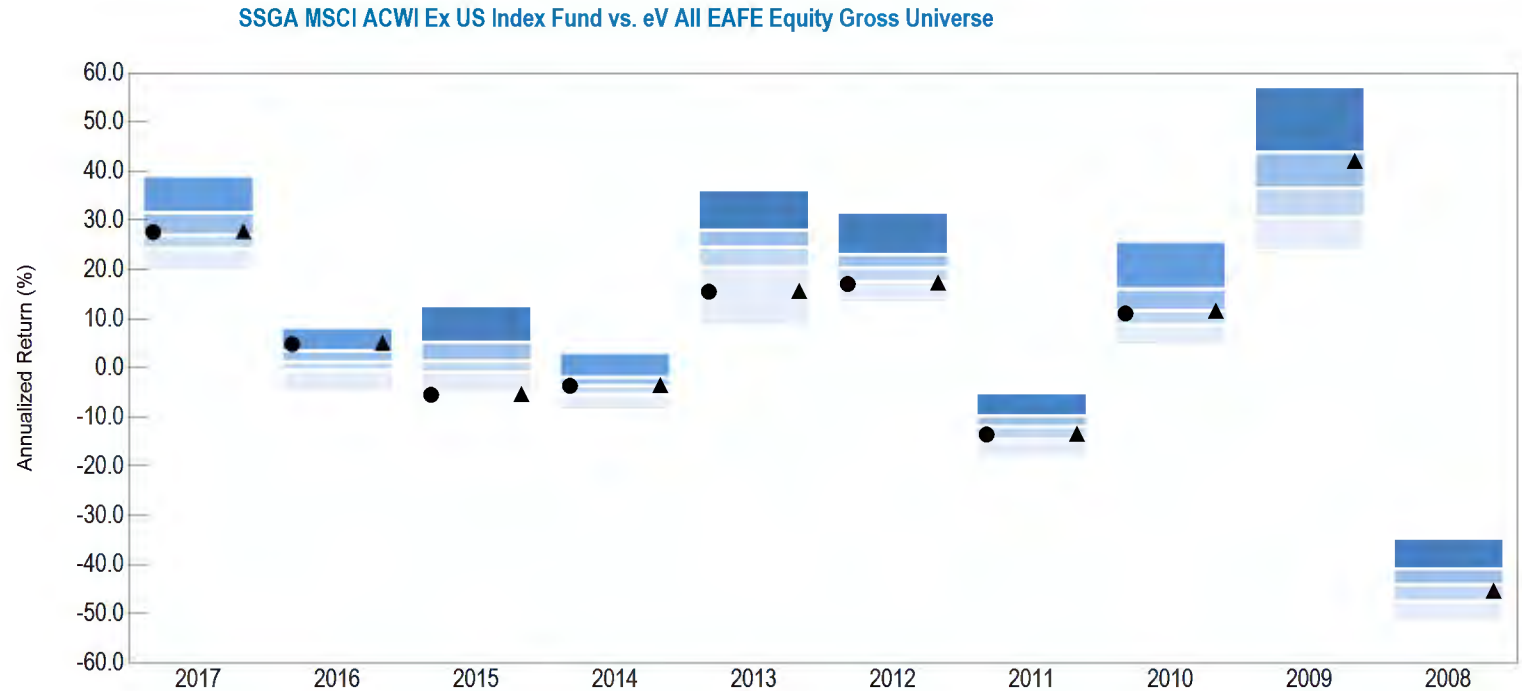


	Return (Rank)													
5th Percentile	2.1		2.3		17.0		17.0		12.4		13.5		11.2	
25th Percentile	-0.3		-0.6		11.4		11.4		8.7		10.1		8.2	
Median	-1.3		-2.3		8.3		8.3		6.4		8.0		6.5	
75th Percentile	-2.5		-3.6		6.0		6.0		5.1		6.8		5.4	
95th Percentile	-4.3		-5.9		2.5		2.5		3.2		5.7		4.3	
# of Portfolios	385		383		383		383		359		328		298	
● SSGA MSCI ACWI Ex US Index Fund	-2.5	(76)	-3.6	(75)	7.6	(57)	7.6	(57)	5.3	(70)	6.3	(89)	4.1	(97)
▲ MSCI ACWI ex USA Gross	-2.4	(74)	-3.4	(72)	7.8	(56)	7.8	(56)	5.6	(64)	6.5	(85)	4.3	(96)
													3.0	(89)

SSGA MSCI ACWI Ex US Index Fund

Consecutive Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018



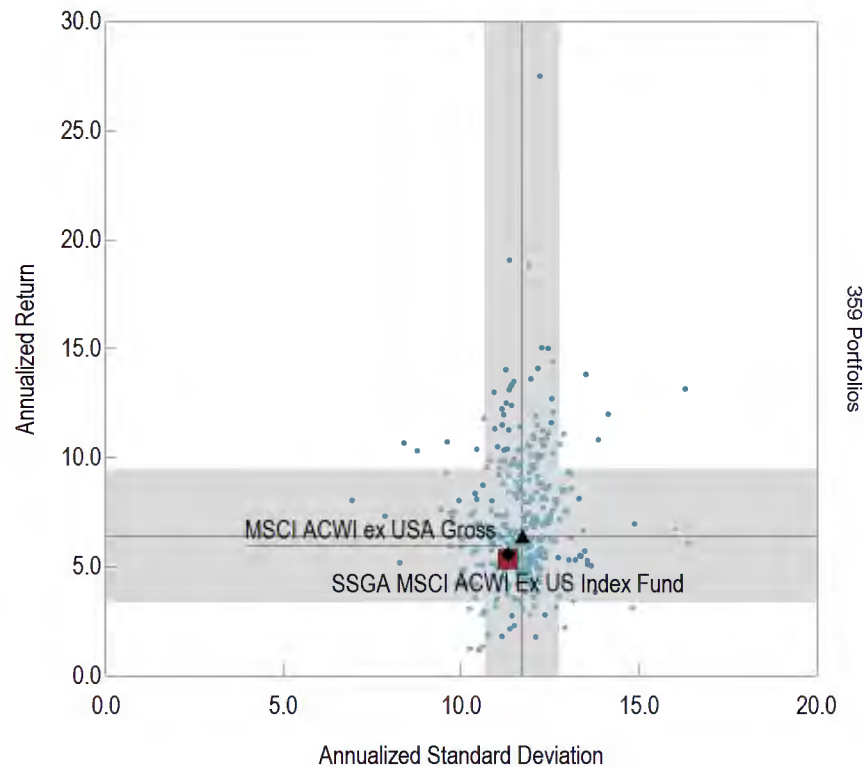
	Return (Rank)									
5th Percentile	39.0	8.1	12.6	3.0	36.3	31.7	-5.1	25.7	57.3	-34.5
25th Percentile	31.6	3.4	5.2	-1.9	28.1	23.1	-9.7	16.1	44.0	-40.8
Median	27.0	1.3	1.4	-3.7	24.6	20.4	-12.0	11.7	36.5	-44.1
75th Percentile	24.3	-0.6	-0.9	-5.4	20.5	17.5	-14.5	8.7	30.7	-47.5
95th Percentile	19.7	-4.9	-5.4	-8.6	8.6	13.3	-18.2	4.6	23.7	-51.5
# of Portfolios	370	350	325	314	284	263	278	352	455	477
● SSGA MSCI ACWI Ex US Index Fund	27.6 (49)	4.8 (17)	-5.5 (96)	-3.6 (49)	15.5 (90)	17.1 (81)	-13.5 (64)	11.2 (55)	-- (--)	-- (--)
▲ MSCI ACWI ex USA Gross	27.8 (48)	5.0 (16)	-5.3 (95)	-3.4 (47)	15.8 (90)	17.4 (77)	-13.3 (62)	11.6 (52)	42.1 (30)	-45.2 (59)

SSGA MSCI ACWI Ex US Index Fund

Risk vs Return Three & Five Year (Gross of Fees)

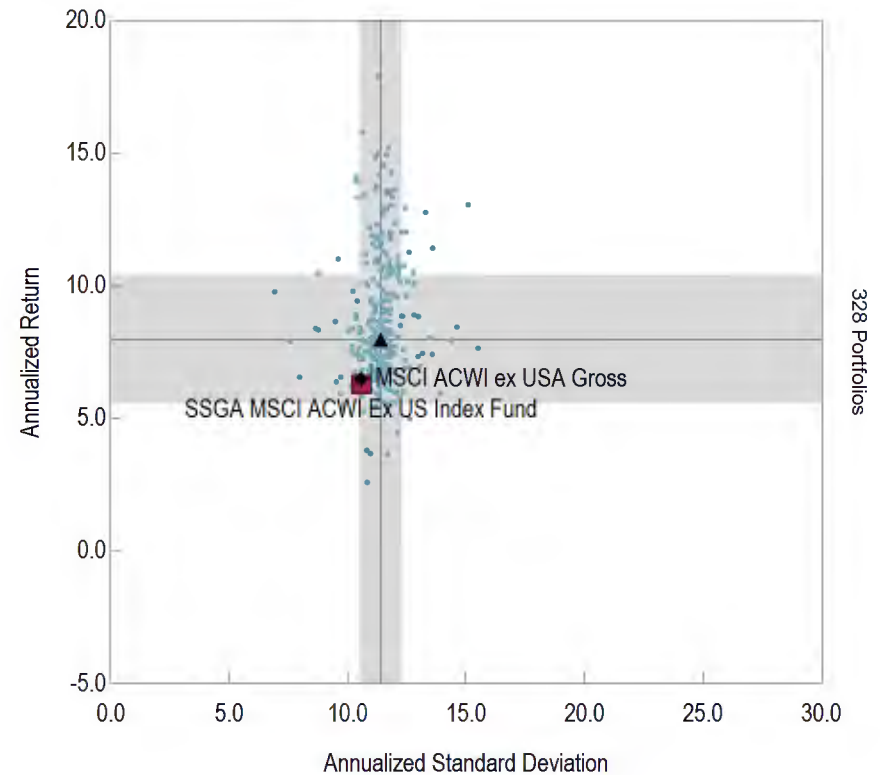
Period Ending: June 30, 2018

Risk vs. Return
3 Years



- SSGA MSCI ACWI Ex US Index Fund
- ◆ MSCI ACWI ex USA Gross
- ▲ Universe Median
- 68% Confidence Interval
- eV All EAFE Equity Gross

Risk vs. Return
5 Years



- SSGA MSCI ACWI Ex US Index Fund
- ◆ MSCI ACWI ex USA Gross
- ▲ Universe Median
- 68% Confidence Interval
- eV All EAFE Equity Gross

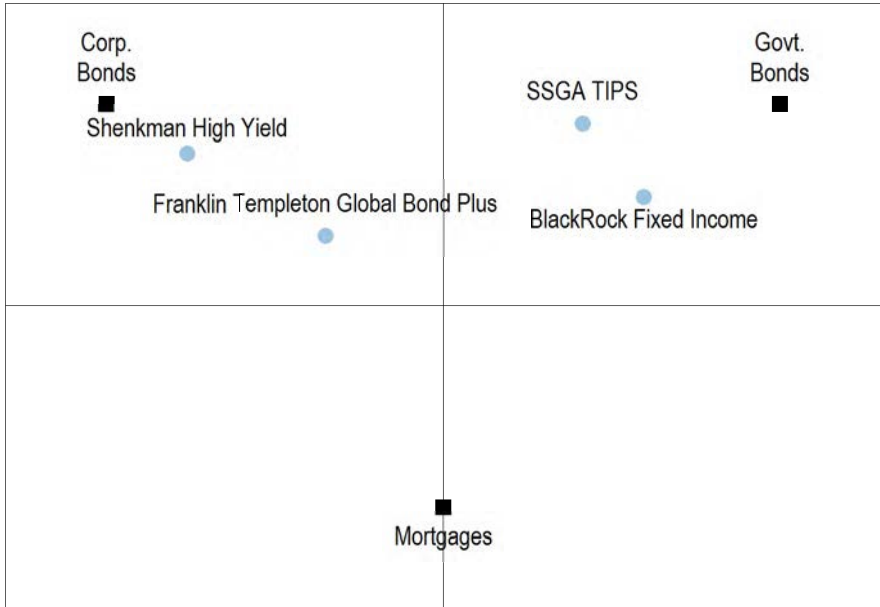
Total Fixed Income Asset Class Overview (Gross of Fees)

Period Ending: June 30, 2018

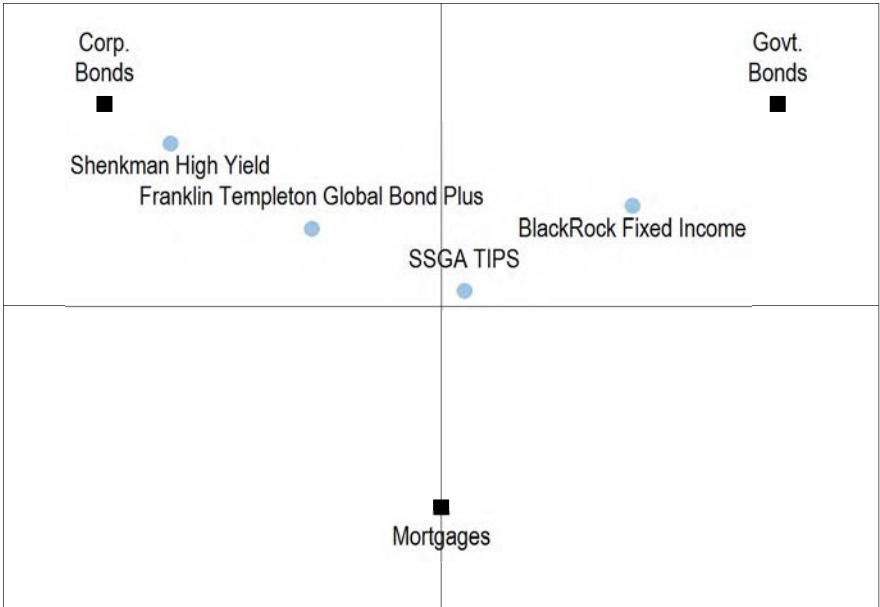
	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Fixed Income	366,944,163	-0.4	-1.2	0.2	0.2	2.4	2.8	4.9	4.3	5.5	-0.8	4.6	-0.9
BBgBarc US Aggregate TR		-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
InvestorForce Public DB US Fix Inc Gross Rank		92	64	47	47	35	45	24	50	37	77	69	49
Total Domestic Fixed Income													
BlackRock Fixed Income	132,263,390	-0.1	-1.6	-0.3	-0.3	2.0	2.7	4.2	3.9	3.1	1.1	6.2	-1.5
BBgBarc US Aggregate TR		-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
eV All US Fixed Inc Gross Rank		77	80	82	82	58	54	51	54	53	39	29	75
Doubleline Core Plus	70,096,543	0.0	-0.9	0.5	0.5	--	--	--	4.2	4.8	--	--	--
BBgBarc US Aggregate TR		-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
eV US Core Plus Fixed Inc Gross Rank		24	17	41	41	--	--	--	86	52	--	--	--
MacKay Shields Core Plus	69,326,850	-0.2	-1.6	0.2	0.2	--	--	--	5.0	5.1	--	--	--
BBgBarc US Aggregate TR		-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
eV US Core Plus Fixed Inc Gross Rank		47	64	64	64	--	--	--	52	46	--	--	--
Shenkman High Yield	20,520,048	0.9	0.9	3.7	3.7	4.6	5.1	--	7.2	12.3	-2.4	2.5	6.3
ICE BofAML US High Yield TR		1.0	0.1	2.5	2.5	5.5	5.5	--	7.5	17.5	-4.6	2.5	7.4
eV US High Yield Fixed Inc Gross Rank		36	25	23	23	71	65	--	57	65	51	52	81
SSGA TIPS	11,164,016	0.8	0.0	2.1	2.1	1.9	1.7	--	3.0	4.7	-1.4	3.6	-8.6
BBgBarc US TIPS TR		0.8	0.0	2.1	2.1	1.9	1.7	--	3.0	4.7	-1.4	3.6	-8.6
eV US TIPS / Inflation Fixed Inc Gross Rank		39	74	55	55	67	68	--	69	50	63	44	77
Total Global Fixed Income													
Franklin Templeton Global Bond Plus	63,573,316	-2.4	-0.8	-0.9	-0.9	1.7	2.4	--	3.0	6.8	-3.5	2.4	3.0
JPM GBI Global TR USD		-3.0	-0.9	1.7	1.7	2.7	1.3	--	6.8	1.6	-2.6	0.7	-4.5
eV Global Fixed Inc Unhedged Gross Rank		46	29	94	94	86	53	--	96	24	67	50	23

Veritas Transition Account used to liquidated PIMCO Core Plus on 11/15/15, remaining balance is residual cash. MacKay Shields and Doubleline funded 12/1/15. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Fixed Income Style Map
3 Years



Fixed Income Style Map
5 Years



Total Fixed Income Asset Class Overview (Net of Fees)

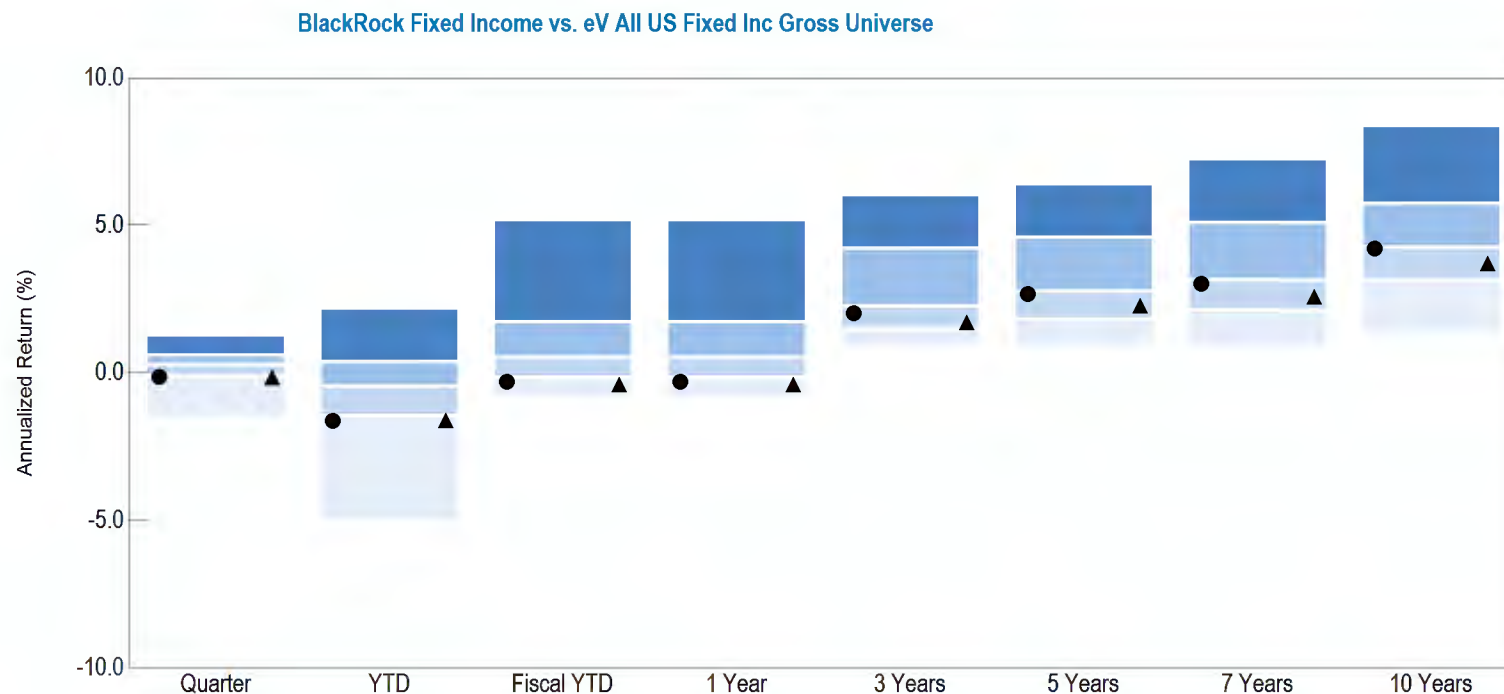
Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Fixed Income	366,944,163	-0.5	-1.3	-0.2	-0.2	2.1	2.4	4.6	3.9	5.1	-1.1	4.3	-1.2
<i>BBgBarc US Aggregate TR</i>		-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
Total Domestic Fixed Income													
BlackRock Fixed Income	132,263,390	-0.2	-1.7	-0.6	-0.6	1.8	2.4	4.0	3.6	2.9	0.8	6.0	-1.8
<i>BBgBarc US Aggregate TR</i>		-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7	3.5	2.6	0.6	6.0	-2.0
Doubleline Core Plus	70,096,543	-0.1	-1.1	0.2	0.2	--	--	--	3.9	4.6	--	--	--
<i>BBgBarc US Aggregate TR</i>		-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
MacKay Shields Core Plus	69,326,850	-0.3	-1.8	-0.2	-0.2	--	--	--	4.5	4.7	--	--	--
<i>BBgBarc US Aggregate TR</i>		-0.2	-1.6	-0.4	-0.4	--	--	--	3.5	2.6	--	--	--
Shenkman High Yield	20,520,048	0.8	0.6	3.1	3.1	4.1	4.6	--	6.7	11.7	-2.9	2.0	5.8
<i>ICE BofAML US High Yield TR</i>		1.0	0.1	2.5	2.5	5.5	5.5	--	7.5	17.5	-4.6	2.5	7.4
SSGA TIPS	11,164,016	0.8	-0.1	2.0	2.0	1.9	1.6	--	3.0	4.6	-1.5	3.6	-8.6
<i>BBgBarc US TIPS TR</i>		0.8	0.0	2.1	2.1	1.9	1.7	--	3.0	4.7	-1.4	3.6	-8.6
Total Global Fixed Income													
Franklin Templeton Global Bond Plus	63,573,316	-2.6	-1.0	-1.4	-1.4	1.1	1.8	--	2.4	6.1	-4.1	1.9	2.5
<i>JPM GBI Global TR USD</i>		-3.0	-0.9	1.7	1.7	2.7	1.3	--	6.8	1.6	-2.6	0.7	-4.5

Vertas Transition Account used to liquidated PIMCO Core Plus on 11/15/15, remaining balance is residual cash. MacKay Shields and Doubleline funded 12/1/15.

BlackRock Fixed Income Cumulative Performance Comparison (Gross of Fees)

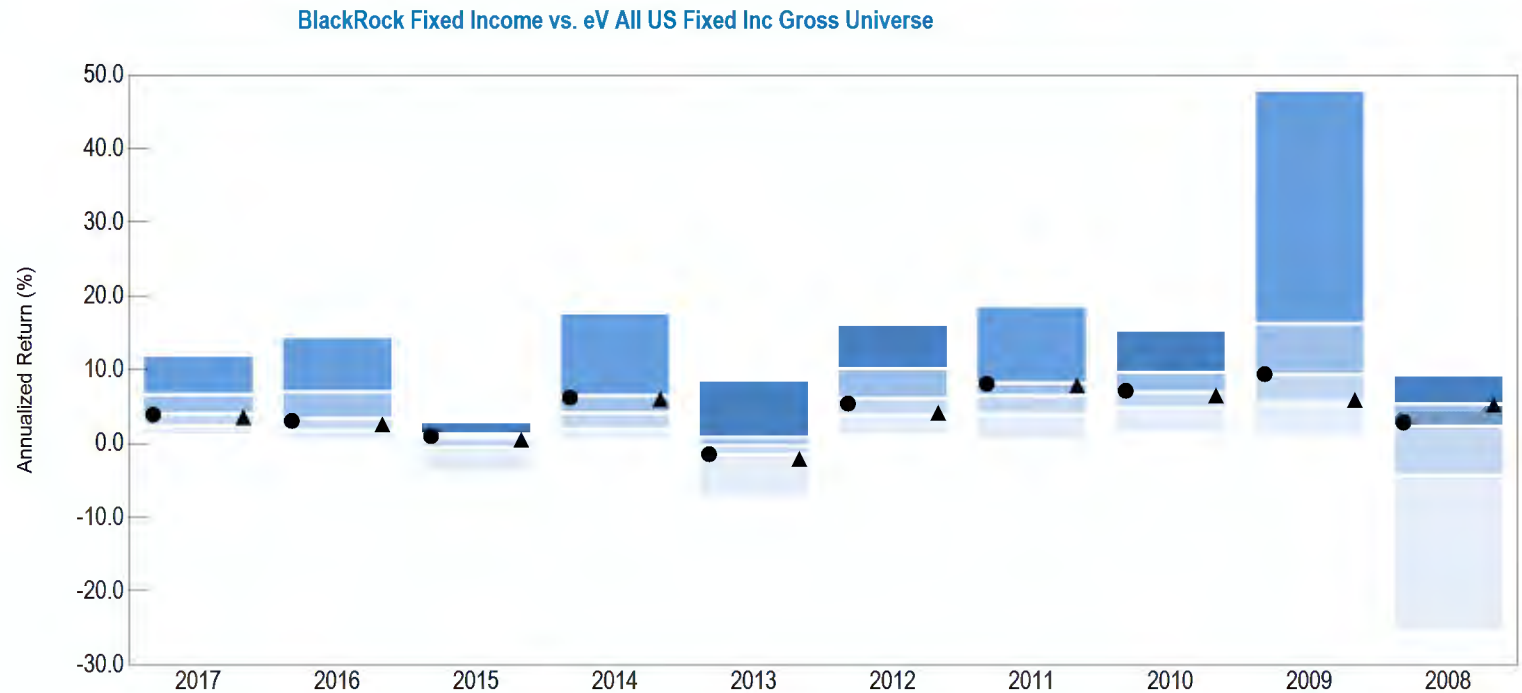
Period Ending: June 30, 2018



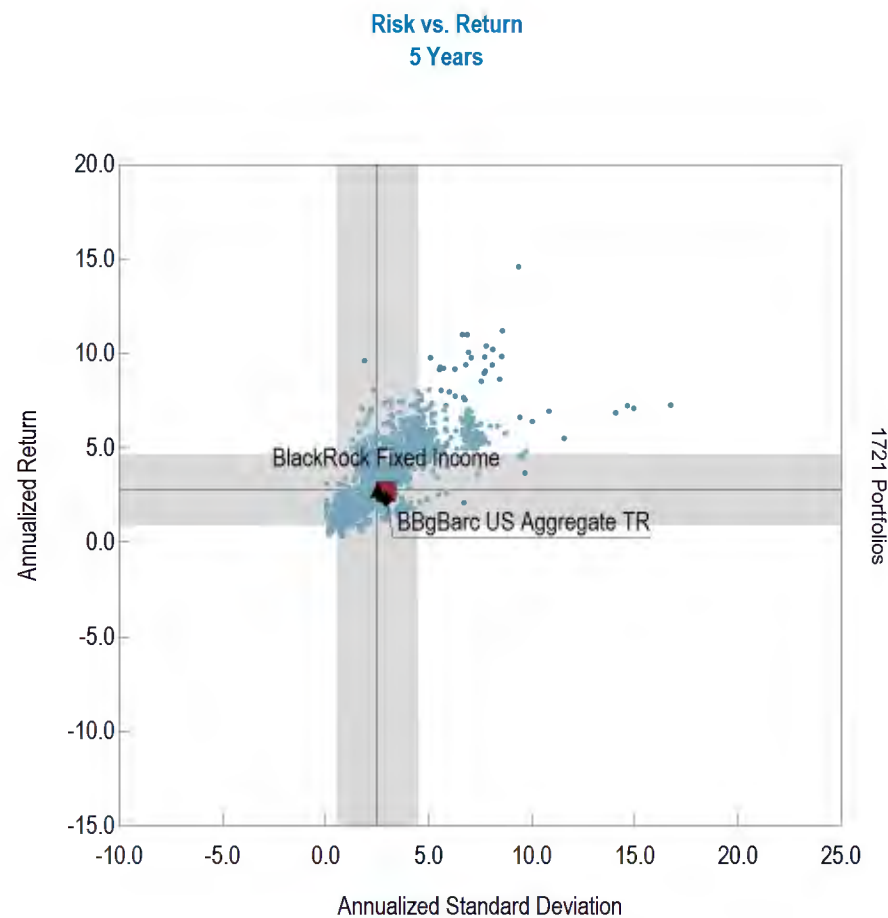
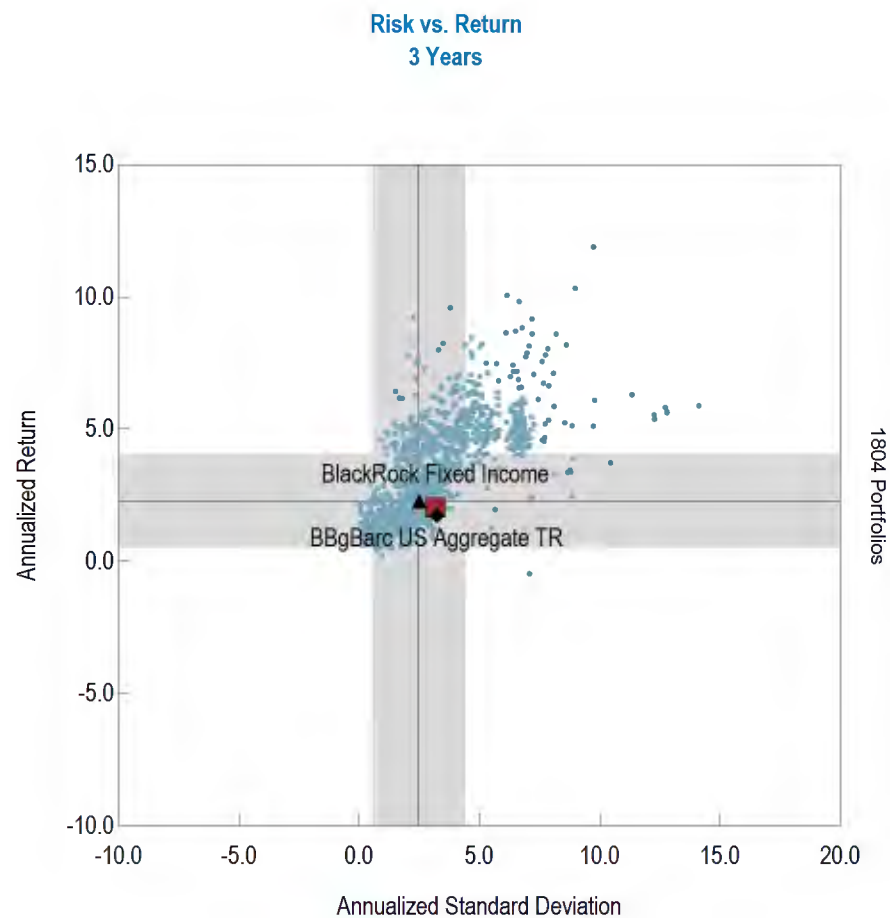
	Return (Rank)											
5th Percentile	1.3		2.2		5.2		5.2		6.0		6.4	
25th Percentile	0.6		0.4		1.8		1.8		4.2		4.6	
Median	0.3		-0.5		0.5		0.5		2.3		2.8	
75th Percentile	-0.1		-1.5		-0.1		-0.1		1.5		1.8	
95th Percentile	-1.5		-5.0		-0.8		-0.8		0.9		0.9	
# of Portfolios	1,860		1,860		1,859		1,859		1,804		1,721	
● BlackRock Fixed Income	-0.1	(77)	-1.6	(80)	-0.3	(82)	-0.3	(82)	2.0	(58)	2.7	(54)
▲ BBgBarc US Aggregate TR	-0.2	(78)	-1.6	(80)	-0.4	(86)	-0.4	(86)	1.7	(68)	2.3	(65)
											3.0	(54)
											2.6	(64)
											4.2	(51)
											3.7	(63)

BlackRock Fixed Income Consecutive Performance Comparison (Gross of Fees)

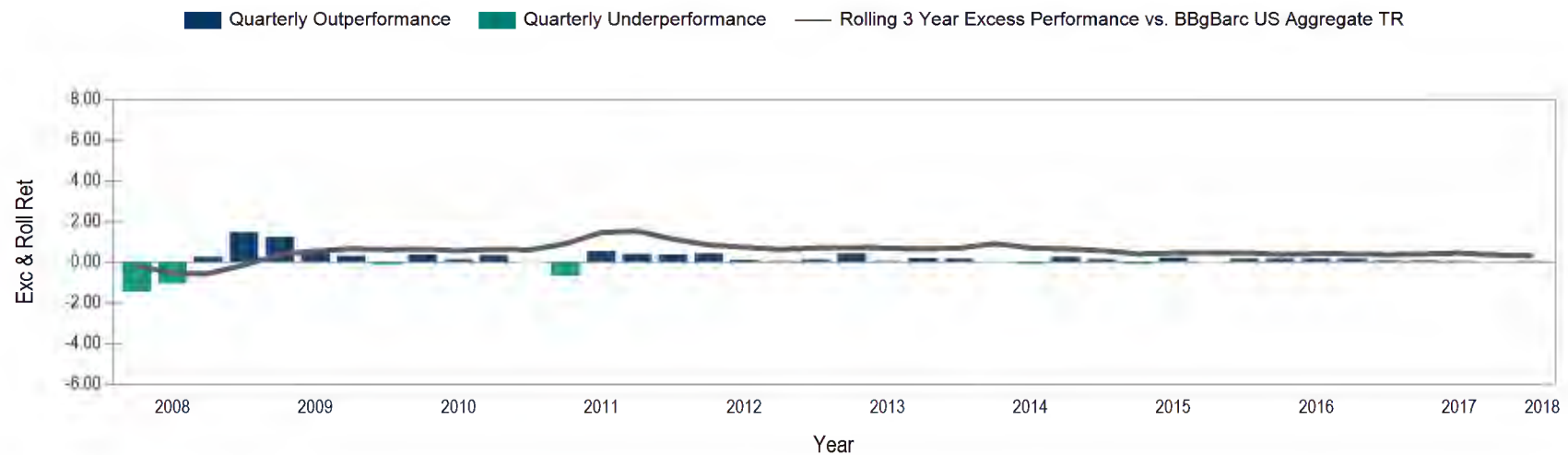
Period Ending: June 30, 2018



	Return (Rank)									
5th Percentile	12.0	14.5	3.0	17.7	8.7	16.2	18.6	15.5	47.9	9.4
25th Percentile	6.6	7.0	1.4	6.4	0.9	10.2	8.2	9.7	16.3	5.4
Median	4.1	3.3	0.8	4.2	-0.3	6.1	6.5	6.9	9.3	2.4
75th Percentile	2.4	1.8	-0.5	2.0	-1.5	3.8	4.0	4.8	5.7	-4.3
95th Percentile	1.1	0.4	-4.1	0.5	-7.5	1.1	0.4	1.4	1.2	-25.4
# of Portfolios	1,843	1,722	1,394	1,364	1,281	1,241	1,211	1,157	1,287	1,380
● BlackRock Fixed Income	3.9 (54)	3.1 (53)	1.1 (39)	6.2 (29)	-1.5 (75)	5.5 (56)	8.1 (28)	7.2 (45)	9.4 (50)	2.9 (48)
▲ BBgBarc US Aggregate TR	3.5 (59)	2.6 (60)	0.6 (59)	6.0 (33)	-2.0 (83)	4.2 (70)	7.8 (32)	6.5 (57)	5.9 (73)	5.2 (27)



Rolling 3 Year Annualized Excess Performance

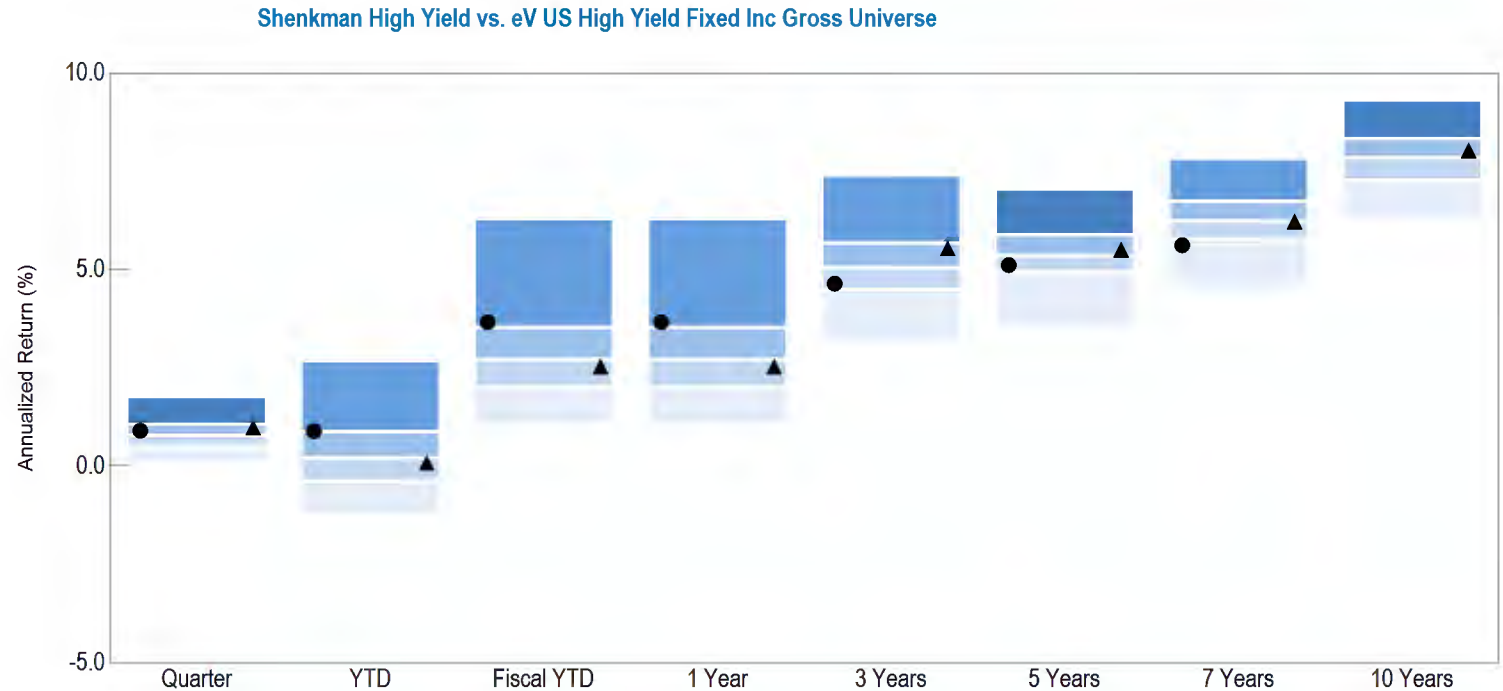


Rolling 5 Year Annualized Excess Performance



Shenkman High Yield Cumulative Performance Comparison (Gross of Fees)

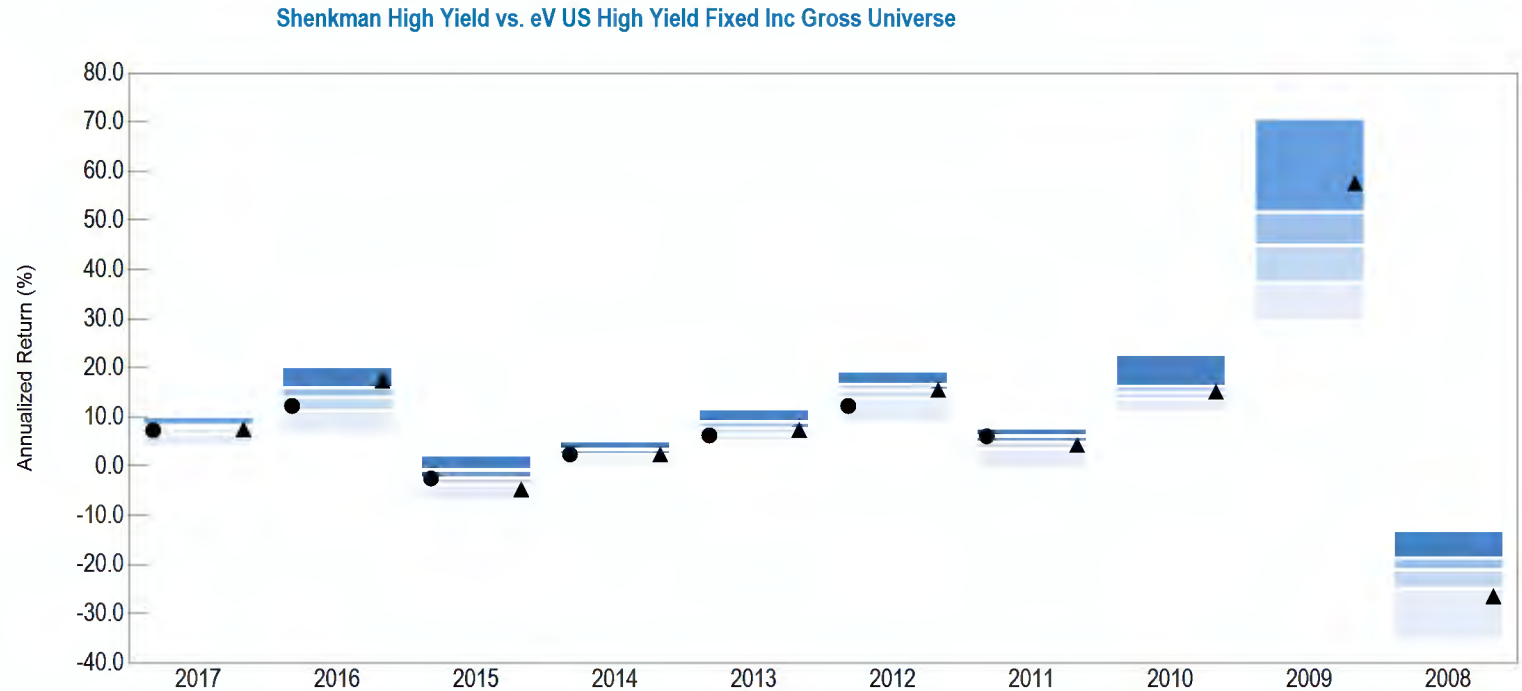
Period Ending: June 30, 2018



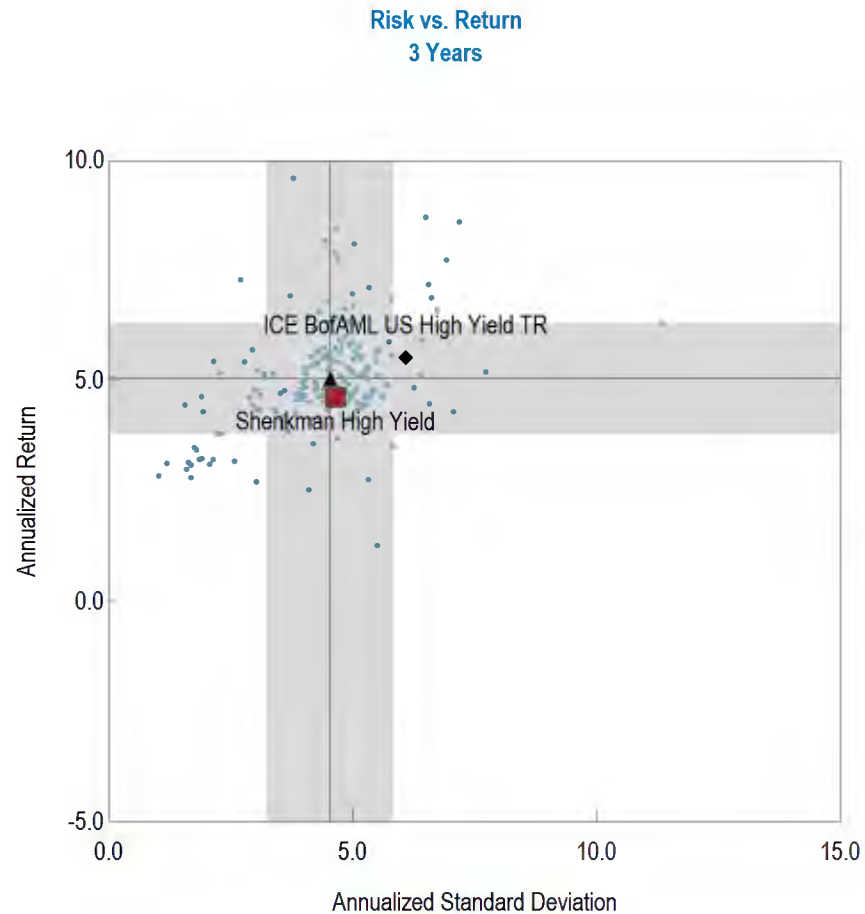
	Return (Rank)											
	Quarter	YTD	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years				
5th Percentile	1.8	2.7	6.3	6.3	7.4	7.0	7.8	9.3				
25th Percentile	1.1	0.9	3.5	3.5	5.7	5.9	6.7	8.3				
Median	0.8	0.2	2.7	2.7	5.1	5.4	6.2	7.9				
75th Percentile	0.5	-0.4	2.0	2.0	4.5	4.9	5.8	7.3				
95th Percentile	0.1	-1.2	1.0	1.0	3.2	3.5	4.5	6.3				
# of Portfolios	206	206	205	205	197	177	154	127				
● Shenkman High Yield	0.9 (36)	0.9 (25)	3.7 (23)	3.7 (23)	4.6 (71)	5.1 (65)	5.6 (84)	-- (--)				
▲ ICE BofAML US High Yield TR	1.0 (29)	0.1 (57)	2.5 (61)	2.5 (61)	5.5 (31)	5.5 (42)	6.2 (51)	8.0 (40)				

Shenkman High Yield Consecutive Performance Comparison (Gross of Fees)

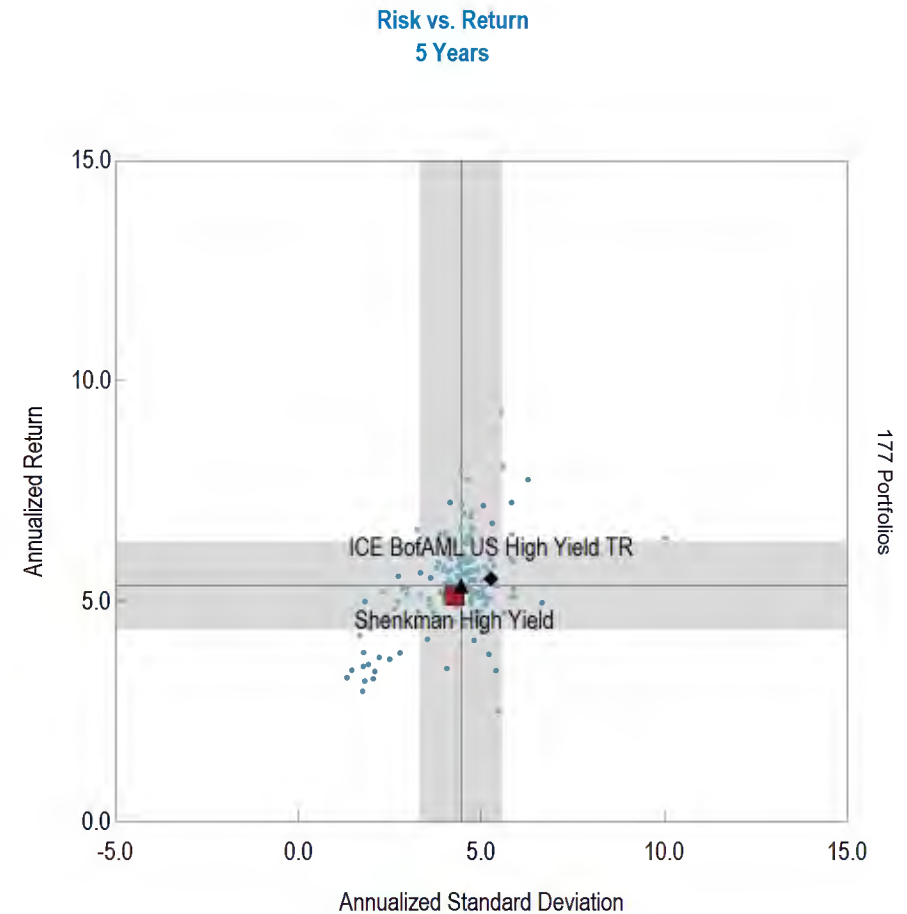
Period Ending: June 30, 2018



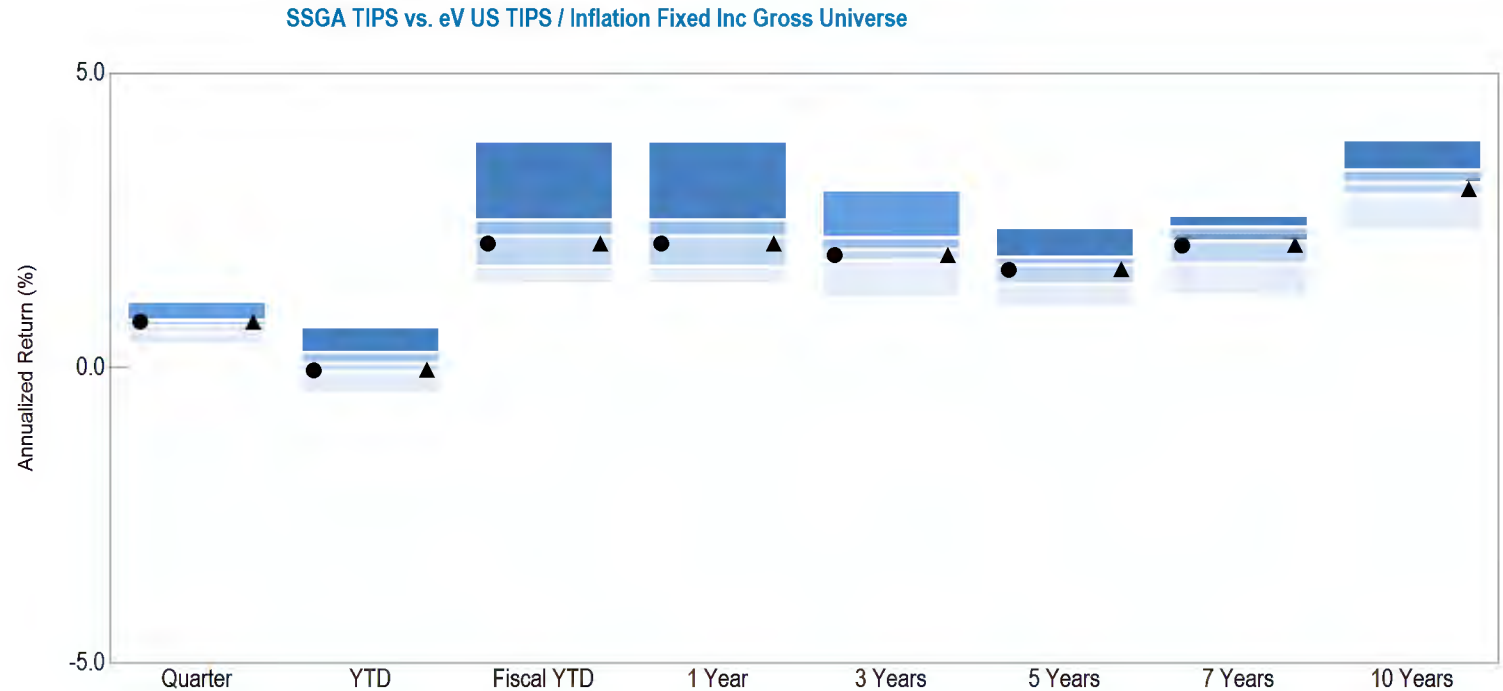
	Return (Rank)									
5th Percentile	10.0	20.3	2.3	5.2	11.7	19.4	7.9	22.8	70.8	-13.1
25th Percentile	8.3	16.0	-0.7	3.5	9.1	16.7	6.2	16.3	51.8	-18.6
Median	7.5	14.0	-2.4	2.5	7.6	15.5	4.9	14.9	45.0	-21.2
75th Percentile	6.5	11.3	-3.8	1.5	6.6	14.0	3.5	13.6	37.4	-24.9
95th Percentile	4.0	6.6	-7.2	0.0	5.0	8.9	-0.7	10.9	29.6	-35.7
# of Portfolios	198	183	155	141	130	129	117	106	123	131
● Shenkman High Yield	7.2 (57)	12.3 (65)	-2.4 (51)	2.5 (52)	6.3 (81)	12.3 (89)	6.1 (27)	-- (--)	-- (--)	-- (--)
▲ ICE BofAML US High Yield TR	7.5 (53)	17.5 (14)	-4.6 (83)	2.5 (51)	7.4 (55)	15.6 (47)	4.4 (60)	15.2 (42)	57.5 (16)	-26.4 (82)



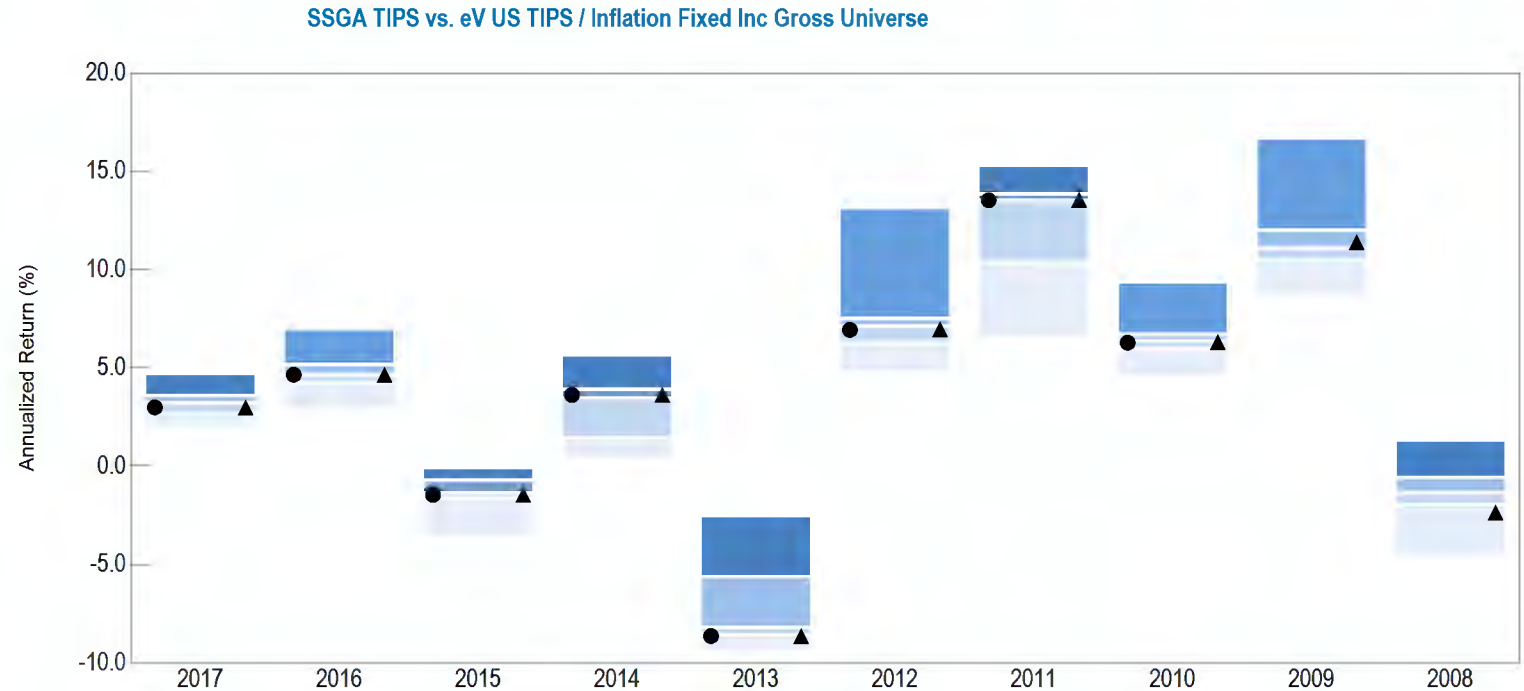
- Shenkman High Yield
- ◆ ICE BofAML US High Yield TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US High Yield Fixed Inc Gross



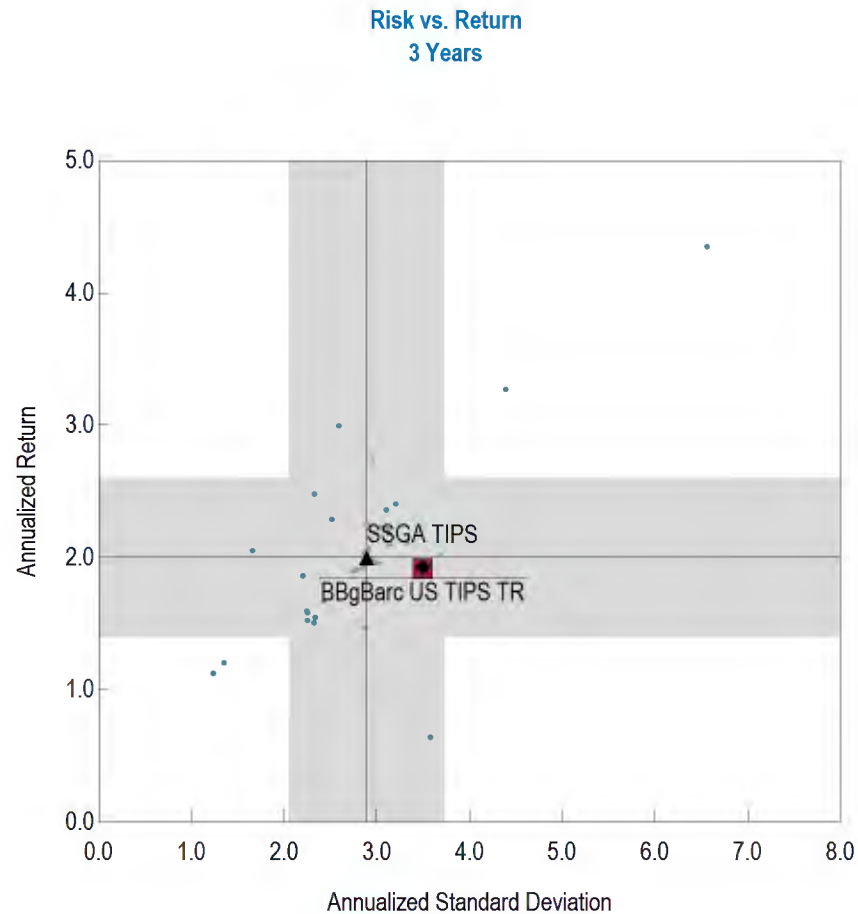
- Shenkman High Yield
- ◆ ICE BofAML US High Yield TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US High Yield Fixed Inc Gross



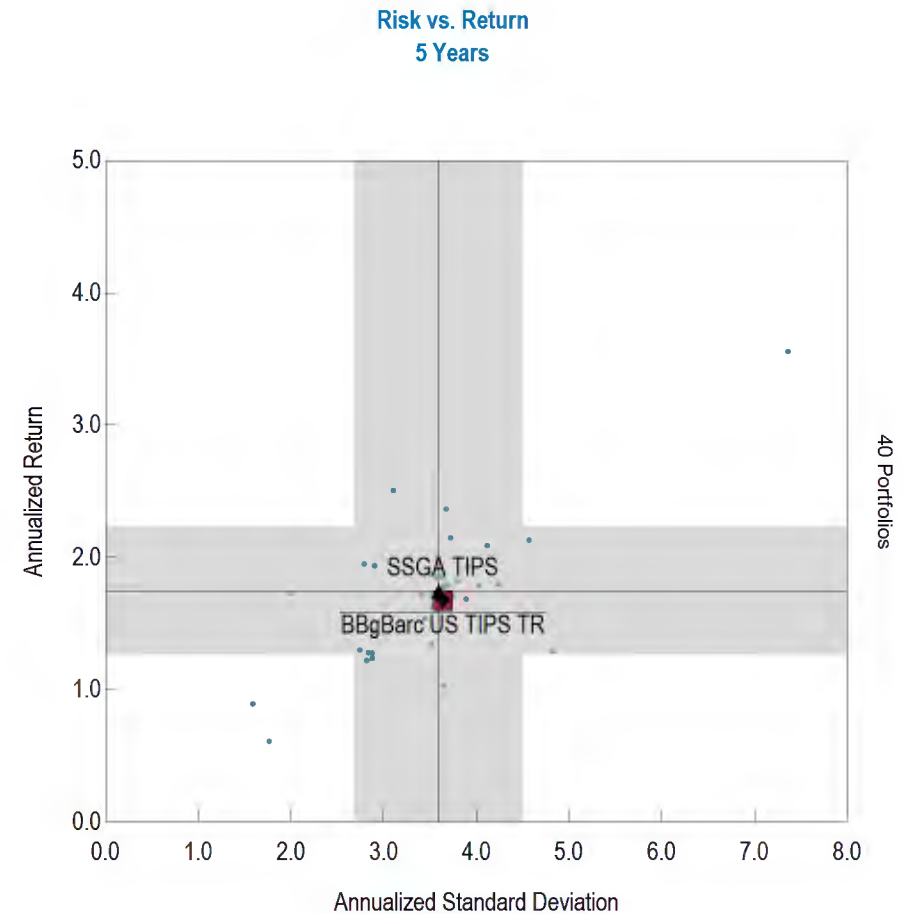
	Return (Rank)													
5th Percentile	1.1		0.7		3.9		3.9		3.0		2.4		2.6	
25th Percentile	0.8		0.3		2.5		2.5		2.2		1.9		2.4	
Median	0.7		0.1		2.2		2.2		2.0		1.7		2.2	
75th Percentile	0.6		-0.1		1.7		1.7		1.8		1.4		1.8	
95th Percentile	0.4		-0.4		1.4		1.4		1.2		1.0		1.2	
# of Portfolios	41		41		41		41		40		40		39	
● SSGA TIPS	0.8	(39)	0.0	(74)	2.1	(55)	2.1	(55)	1.9	(67)	1.7	(68)	2.1	(65)
▲ BBgBarc US TIPS TR	0.8	(40)	0.0	(73)	2.1	(55)	2.1	(55)	1.9	(67)	1.7	(67)	2.1	(64)
													3.0	(69)



	Return (Rank)									
5th Percentile	4.7	7.0	-0.1	5.7	-2.5	13.1	15.3	9.4	16.7	1.3
25th Percentile	3.6	5.2	-0.7	4.0	-5.6	7.5	13.9	6.7	12.0	-0.5
Median	3.2	4.7	-1.3	3.5	-8.2	7.1	13.5	6.4	11.1	-1.4
75th Percentile	2.7	4.3	-1.6	1.4	-8.6	6.3	10.4	6.0	10.5	-1.9
95th Percentile	2.0	2.8	-3.6	0.4	-9.4	4.9	6.6	4.6	8.7	-4.6
# of Portfolios	38	42	44	50	43	43	47	39	37	40
● SSGA TIPS	3.0 (69)	4.7 (50)	-1.4 (63)	3.6 (44)	-8.6 (77)	6.9 (67)	13.5 (51)	6.3 (62)	-- (--)	-- (--)
▲ BBgBarc US TIPS TR	3.0 (71)	4.7 (47)	-1.4 (59)	3.6 (44)	-8.6 (76)	7.0 (66)	13.6 (49)	6.3 (57)	11.4 (35)	-2.4 (85)



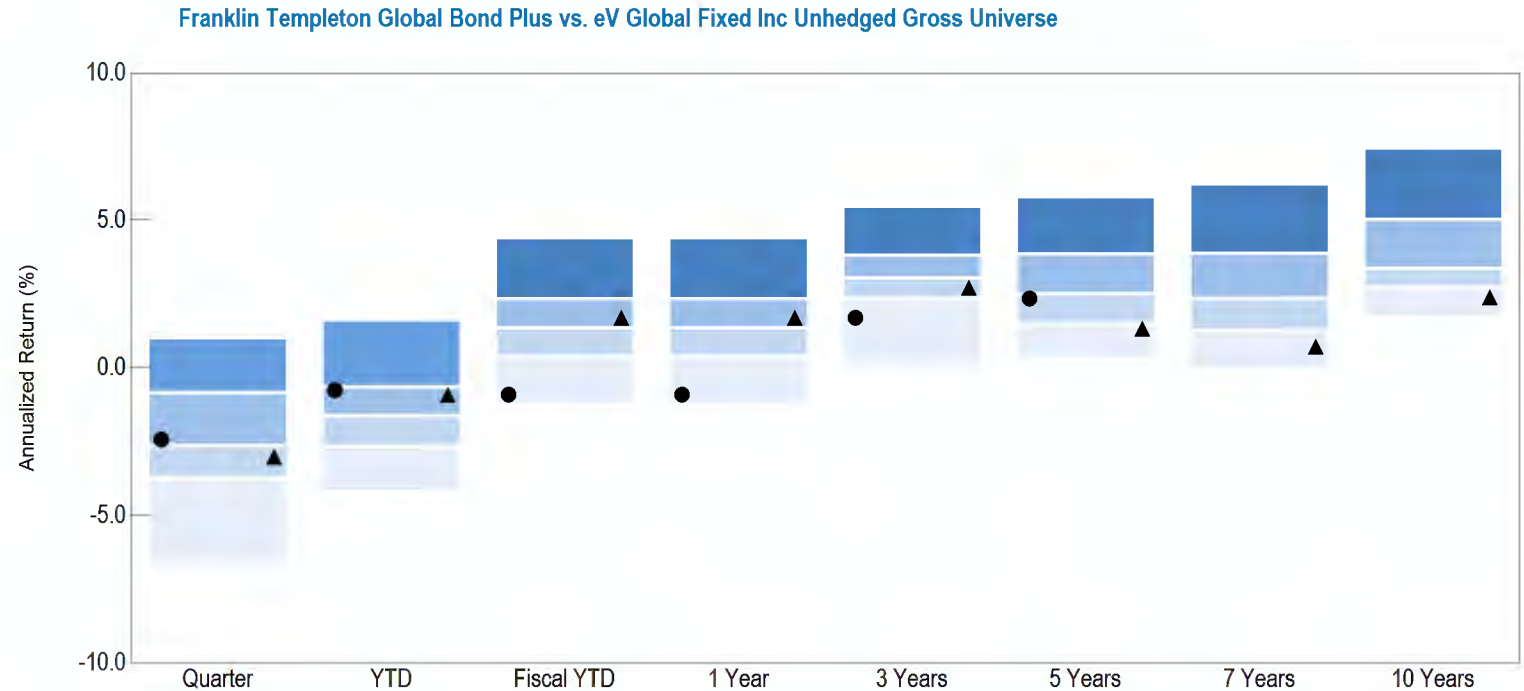
- SSGA TIPS
- ◆ BBgBarc US TIPS TR
- ▲ Universe Median
- 68% Confidence Interval
- eV US TIPS / Inflation Fixed Inc Gross



- SSGA TIPS
- ◆ BBgBarc US TIPS TR
- ▲ Universe Median
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- eV US TIPS / Inflation Fixed Inc Gross

Franklin Templeton Global Bond Plus Cumulative Performance Comparison (Gross of Fees)

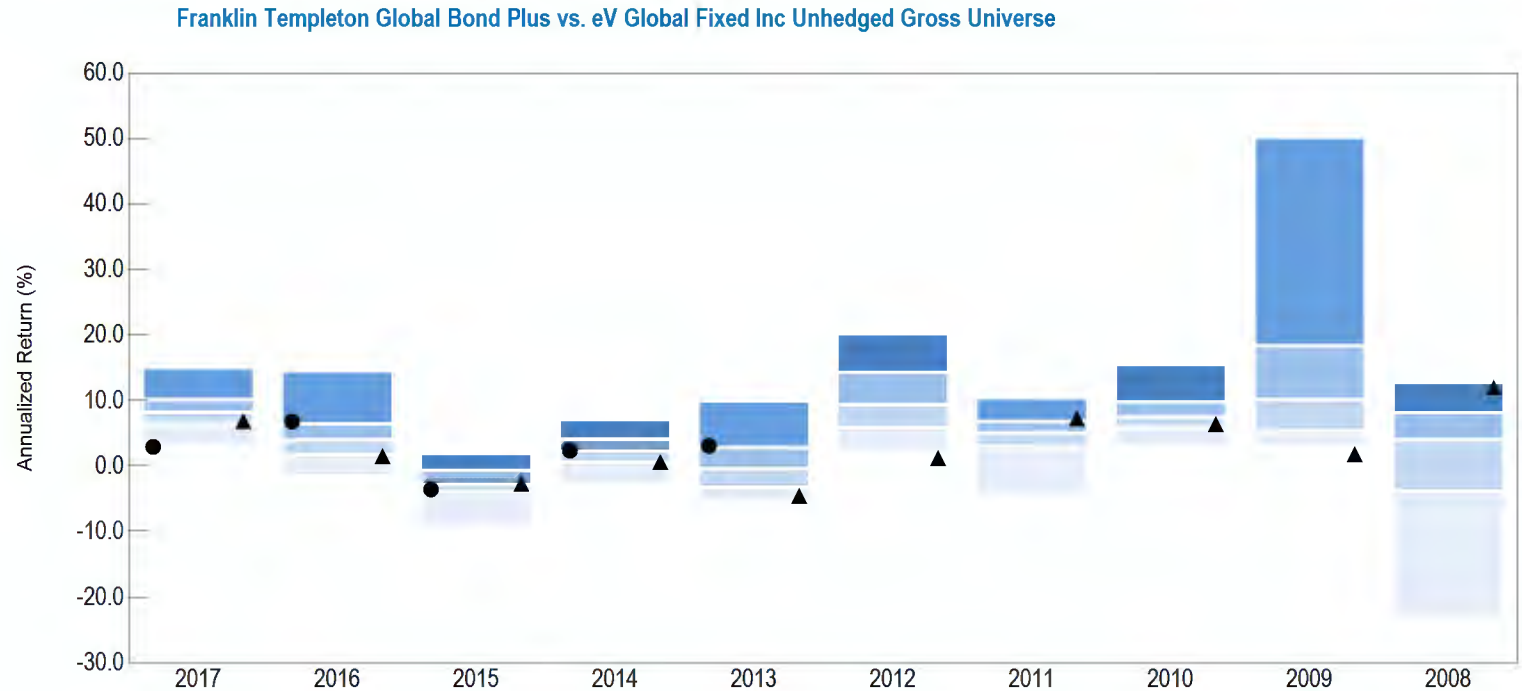
Period Ending: June 30, 2018



	Return (Rank)													
5th Percentile	1.0		1.6		4.4		4.4		5.5		5.8		6.2	
25th Percentile	-0.8		-0.6		2.4		2.4		3.8		3.9		3.9	
Median	-2.6		-1.6		1.4		1.4		3.1		2.5		2.4	
75th Percentile	-3.7		-2.7		0.4		0.4		2.3		1.5		1.3	
95th Percentile	-6.7		-4.2		-1.2		-1.2		0.1		0.3		-0.1	
# of Portfolios	235		235		233		233		222		201		162	
● Franklin Templeton Global Bond Plus	-2.4	(46)	-0.8	(29)	-0.9	(94)	-0.9	(94)	1.7	(86)	2.4	(53)	--	(--)
▲ JPM GBI Global TR USD	-3.0	(60)	-0.9	(32)	1.7	(40)	1.7	(40)	2.7	(63)	1.3	(81)	0.7	(85)
													2.4	(88)

Franklin Templeton Global Bond Plus Consecutive Performance Comparison (Gross of Fees)

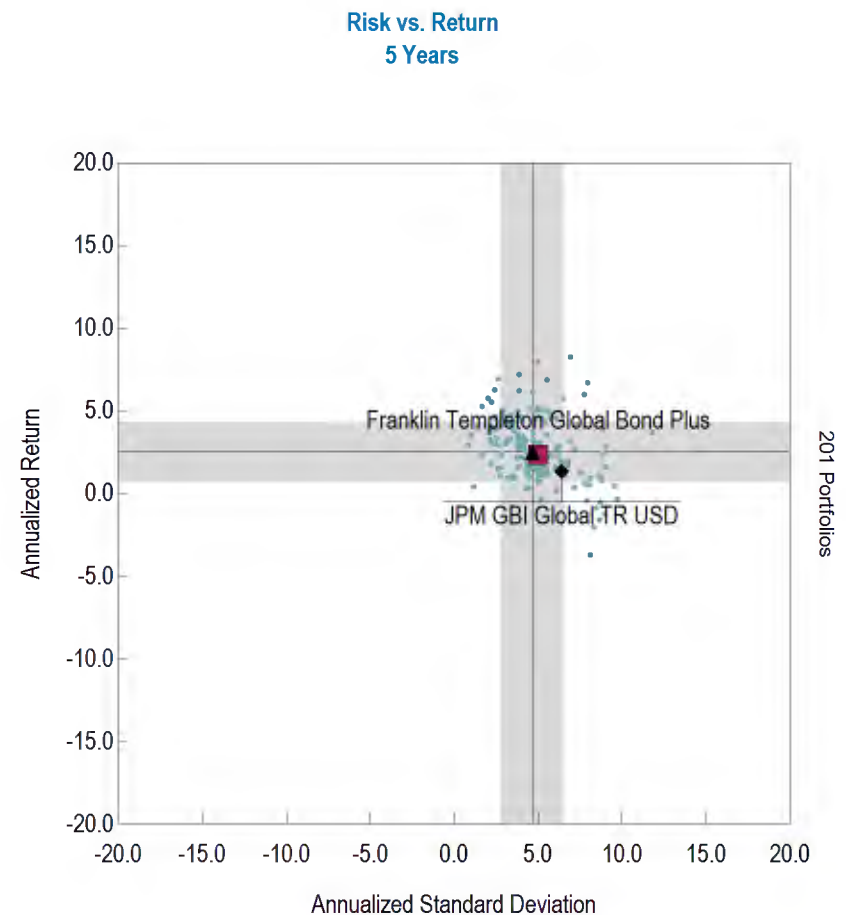
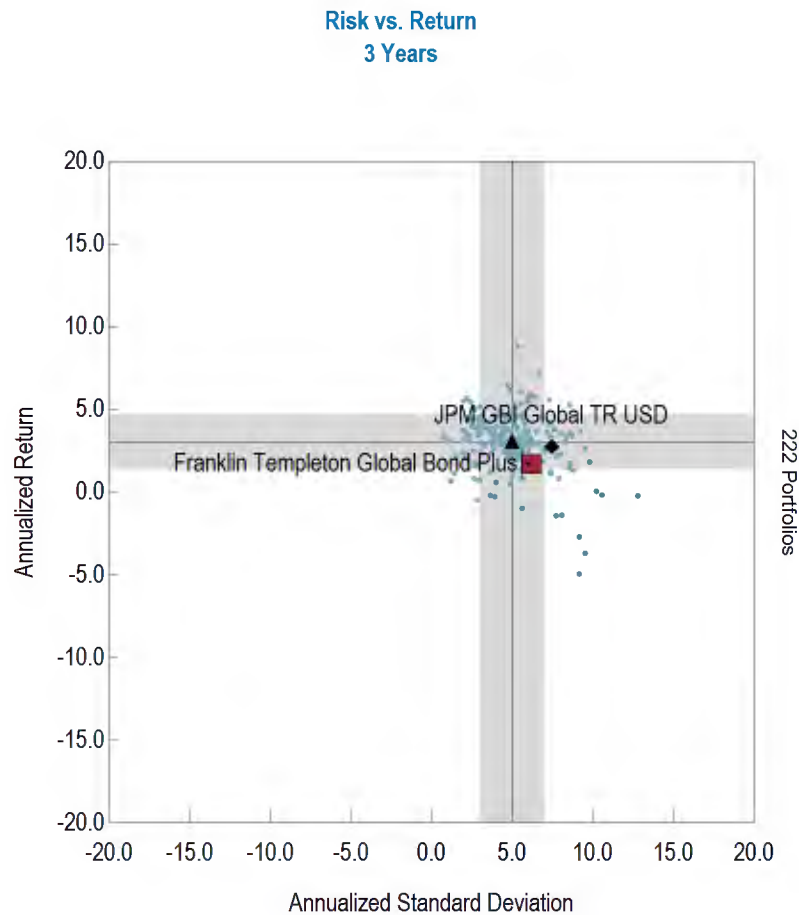
Period Ending: June 30, 2018



	Return (Rank)									
5th Percentile	15.0	14.5	2.0	7.1	9.8	20.2	10.4	15.5	50.1	12.8
25th Percentile	10.1	6.5	-0.6	4.2	2.8	14.3	6.9	9.9	18.4	8.2
Median	8.2	4.0	-2.7	2.3	-0.4	9.4	5.0	7.5	10.1	4.0
75th Percentile	6.5	1.8	-4.0	0.6	-3.2	5.9	3.2	6.0	5.4	-3.8
95th Percentile	3.0	-1.5	-9.2	-2.7	-5.6	2.2	-4.2	3.0	3.2	-23.0
# of Portfolios	231	221	189	159	142	118	108	76	72	73
● Franklin Templeton Global Bond Plus	3.0 (96)	6.8 (24)	-3.5 (67)	2.4 (50)	3.0 (23)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)
▲ JPM GBI Global TR USD	6.8 (72)	1.6 (79)	-2.6 (48)	0.7 (75)	-4.5 (89)	1.3 (98)	7.2 (19)	6.4 (72)	1.9 (99)	12.0 (7)

Franklin Templeton Global Bond Plus Risk vs Return Three Year (Gross of Fees)

Period Ending: June 30, 2018



Total Real Estate Asset Class Overview (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Real Estate	116,408,566	2.2	4.3	7.6	7.6	8.5	10.5	3.8	4.3	9.0	16.0	13.1	11.5
<i>NCREIF Property Index</i>		1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
<i>NCREIF-ODCE</i>		2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
RREEF America II	111,371,982	2.1	4.2	7.4	7.4	8.6	11.1	5.3	4.4	9.3	16.7	13.0	15.5
<i>NCREIF-ODCE</i>		2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
<i>NCREIF Property Index</i>		1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
TA Associates Realty	5,036,584	3.3	5.5	10.2	10.2	7.2	9.6	2.3	5.2	4.6	16.7	15.1	5.2
<i>NCREIF Property Index</i>		1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
<i>NCREIF-ODCE</i>		2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9

Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation. RREEF liquidated in 1Q 2018.

Total Real Estate Asset Class Overview (Net of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Real Estate	116,408,566	2.2	4.3	7.6	7.6	8.0	10.0	3.5	4.3	8.0	15.1	12.5	11.5
<i>NCREIF Property Index</i>		1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
<i>NCREIF-ODCE</i>		2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
RREEF America II	111,371,982	2.1	4.2	7.4	7.4	8.1	10.5	4.8	4.4	8.2	15.7	12.0	15.0
<i>NCREIF-ODCE</i>		2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9
<i>NCREIF Property Index</i>		1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
TA Associates Realty	5,036,584	3.3	5.5	10.2	10.2	6.7	9.1	1.1	5.2	3.7	15.4	14.6	5.1
<i>NCREIF Property Index</i>		1.8	3.5	7.2	7.2	8.3	9.8	6.2	7.0	8.0	13.3	11.8	11.0
<i>NCREIF-ODCE</i>		2.1	4.3	8.4	8.4	9.4	11.0	5.3	7.6	8.8	15.0	12.5	13.9

RREEF liquidated in 1Q 2018.

Total Commodities

Asset Class Overview (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Commodities	41,711,782	1.5	1.0	13.2	13.2	-1.9	--	--	7.5	14.5	-26.3	--	--
Bloomberg Commodity Index TR USD		0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	--	--
Commodities Broad Basket MStar MF Rank		34	39	32	32	44	--	--	16	27	80	--	--
Gresham MTAP Commodity Builder	20,323,010	1.6	1.6	12.1	12.1	-3.0	--	--	5.9	12.3	-25.4	-16.1	--
Bloomberg Commodity Index TR USD		0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	-17.0	--
Commodities Broad Basket MStar MF Rank		33	31	35	35	47	--	--	28	53	71	34	--
Wellington Commodity	21,388,772	1.3	0.5	14.2	14.2	-1.2	--	--	9.0	15.8	-25.7	--	--
Bloomberg Commodity Index TR USD		0.4	0.0	7.3	7.3	-4.5	--	--	1.7	11.8	-24.7	--	--
Commodities Broad Basket MStar MF Rank		39	40	22	22	34	--	--	9	13	73	--	--

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

Total Commodities
Asset Class Overview (Net of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Commodities	41,711,782	1.5	1.0	13.2	13.2	-2.3	--	--	7.5	13.6	-26.8	--	--
<i>Bloomberg Commodity Index TR USD</i>		<i>0.4</i>	<i>0.0</i>	<i>7.3</i>	<i>7.3</i>	<i>-4.5</i>	<i>--</i>	<i>--</i>	<i>1.7</i>	<i>11.8</i>	<i>-24.7</i>	<i>--</i>	<i>--</i>
Gresham MTAP Commodity Builder	20,323,010	1.6	1.6	12.1	12.1	-3.3	--	--	5.9	11.5	-25.9	-16.8	--
<i>Bloomberg Commodity Index TR USD</i>		<i>0.4</i>	<i>0.0</i>	<i>7.3</i>	<i>7.3</i>	<i>-4.5</i>	<i>--</i>	<i>--</i>	<i>1.7</i>	<i>11.8</i>	<i>-24.7</i>	<i>-17.0</i>	<i>--</i>
Wellington Commodity	21,388,772	1.3	0.5	14.2	14.2	-1.6	--	--	9.0	14.9	-26.3	--	--
<i>Bloomberg Commodity Index TR USD</i>		<i>0.4</i>	<i>0.0</i>	<i>7.3</i>	<i>7.3</i>	<i>-4.5</i>	<i>--</i>	<i>--</i>	<i>1.7</i>	<i>11.8</i>	<i>-24.7</i>	<i>--</i>	<i>--</i>

Total Liquid Alts/HFoF
Asset Class Overview (Gross of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Liquid Alts/HFoF	64,132,492	2.3	3.9	7.1	7.1	2.8	4.1	--	5.4	0.3	0.7	5.4	11.0
<i>CPI + 5%</i>		2.2	4.7	8.0	8.0	6.9	6.6	--	7.2	7.2	5.8	5.8	6.6
Aetos Capital	31,943,980	1.1	1.1	3.5	3.5	3.3	4.4	3.6	6.8	2.6	1.2	5.2	11.4
<i>ICE BofAML 90 DAY T-BILLS + 400 bps</i>		1.2	2.3	4.4	4.4	3.7	3.6	4.0	3.9	3.3	3.1	3.5	4.1
Titan Advisors	32,188,513	3.5	6.8	11.0	11.0	--	--	--	4.0	0.6	--	--	--
<i>ICE BofAML 90 DAY T-BILLS + 400 bps</i>		1.2	2.3	4.4	4.4	--	--	--	3.9	3.3	--	--	--

UBP liquidated 12/31/2015. Titan Advisors funded 2/1/2016. Effective 1/1/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

Total Liquid Alts/HFoF
Asset Class Overview (Net of Fees)

Period Ending: June 30, 2018

	Market Value	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2017	2016	2015	2014	2013
Total Liquid Alts/HFoF	64,132,492	2.3	3.9	7.1	7.1	2.4	3.6	--	5.4	-0.5	0.0	4.6	9.9
<i>CPI + 5%</i>		2.2	4.7	8.0	8.0	6.9	6.6	--	7.2	7.2	5.8	5.8	6.6
Aetos Capital	31,943,980	1.1	1.1	3.5	3.5	2.9	3.9	3.3	6.8	1.8	0.5	4.5	10.4
<i>ICE BofAML 90 DAY T-BILLS + 400 bps</i>		1.2	2.3	4.4	4.4	3.7	3.6	4.0	3.9	3.3	3.1	3.5	4.1
Titan Advisors	32,188,513	3.5	6.8	11.0	11.0	--	--	--	4.0	-0.1	--	--	--
<i>ICE BofAML 90 DAY T-BILLS + 400 bps</i>		1.2	2.3	4.4	4.4	--	--	--	3.9	3.3	--	--	--

UBP liquidated 12/31/2015. Titan Advisors funded 2/1/2016.

Performance Return Calculations

Performance is calculated using Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are linked geometrically and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

Manager	Fund Incepted	Data Source	Manager	Fund Incepted	Data Source
SSGA S&P 500 Flagship Fund	7/27/2011	SSGA	Franklin Templeton Global	4/3/2012	BNY
QMA Large Cap Core	12/1/2008	BNY	RREEF America II	3/1/2003	Deutsche
Waddell & Reed	6/4/2010	BNY	TA Associates Realty	6/1/2007	TA Realty
Robeco Boston Partners	2/1/1999	BNY	Gresham MTAP Commodity	12/31/2013	Gresham
William Blair Mid Cap Grw	12/1/2006	BNY	Wellington Commodity	1/3/2014	Wellington
Lee Munder Small Value	8/26/2009	BNY	Aetos Capital	6/1/2005	Aetos
SSGA Russell Sm Cap Idx	5/17/2013	SSGA	BlackRock Private Capital II	7/13/2005	BlackRock
PIMCO RAE	8/14/2012	PIMCO	Pantheon USA Fund VI	7/26/2005	Pantheon
SSGA MSCI ACWI ex US	1/1/2010	SSGA	PIMCO BRAVO	1/14/2011	PIMCO
SGA Global Growth	6/4/2018	SGA	KKR Mezzanine Partners	7/8/2011	KKR
Skellig DST Water Fund	10/28/2014	KBI	Stepstone Secondary Opps II	5/10/2013	Stepstone
BlackRock Fixed Income	12/1/1995	BNY	Titan Advisors	2/1/2016	Titan
Doubleline Core Plus	12/1/2015	BNY	Ocean Avenue	5/27/2016	Ocean Ave
MacKay Shields Core Plus	12/1/2015	MacKay	Pathway	4/12/2016	Pathway
Shenkman High Yield	9/1/2010	SSGA	TPG Diversified Credit	11/21/2016	TPG
SSGA TIPS	9/1/2009	SSGA			

Policy & Custom Index Composition

Policy Index: 20% Russell 3000, 20% MSCI ACWI ex US, 27% BBgBarc US Aggregate, 3% MSCI ACWI, 10% NCREIF Property, 5% Bloomberg Commodity, 5% CPI +500 bps, 5% Russell 3000 +300 bps, 5% BBgBarc High Yield +2% Lagged.

Other Disclosures

Glossary

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

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

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

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

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

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

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

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

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

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

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

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

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

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

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

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

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

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

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

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