



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: JUNE 30, 2018

Investment Performance Review for

San Mateo County Employees' Retirement Association

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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.
- 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.

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.
- 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.

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.
- 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.
- 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.

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.
- 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.

A neutral to mild risk overweight may be warranted in today's 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% <i>3/31/18</i>	2.0% <i>3/31/17</i>
Inflation (CPI YoY, Core)	2.3% <i>6/30/18</i>	1.7% <i>6/30/17</i>
Expected Inflation (5yr-5yr forward)	2.2% <i>6/30/18</i>	1.8% <i>6/30/17</i>
Fed Funds Target Range	1.75 – 2.00% <i>6/30/18</i>	1.00 – 1.25% <i>6/30/17</i>
10 Year Rate	2.9% <i>6/30/18</i>	2.3% <i>6/30/17</i>
U-3 Unemployment	4.0% <i>6/30/18</i>	4.3% <i>6/30/17</i>
U-6 Unemployment	7.8% <i>6/30/18</i>	8.5% <i>6/30/17</i>

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% <i>3/31/18</i>	2.8% <i>5/31/18</i>	4.0% <i>6/30/18</i>
Eurozone	2.5% <i>3/31/18</i>	2.0% <i>6/30/18</i>	8.6% <i>3/31/18</i>
Japan	1.1% <i>3/31/18</i>	0.7% <i>5/31/18</i>	2.2% <i>5/31/18</i>
BRICS Nations	5.8% <i>3/31/18</i>	2.5% <i>6/30/18</i>	5.6% <i>3/31/18</i>
Brazil	1.2% <i>3/31/18</i>	4.4% <i>6/30/18</i>	12.8% <i>6/30/18</i>
Russia	1.3% <i>3/31/18</i>	2.3% <i>6/30/18</i>	4.7% <i>5/31/18</i>
India	7.7% <i>3/31/18</i>	5.0% <i>6/30/18</i>	8.8% <i>12/31/17</i>
China	6.8% <i>3/31/18</i>	1.9% <i>6/30/18</i>	3.9% <i>3/31/18</i>

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

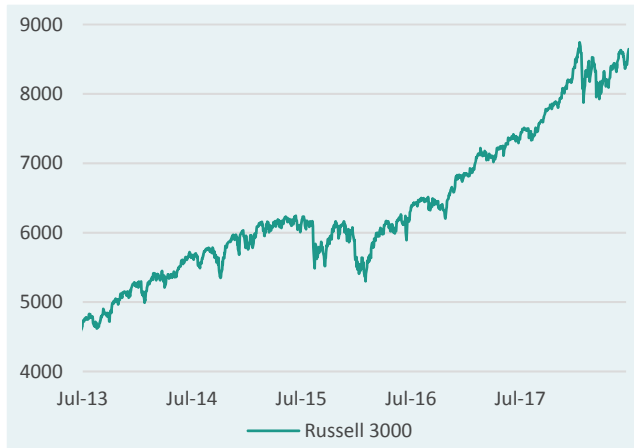
Domestic equity

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.

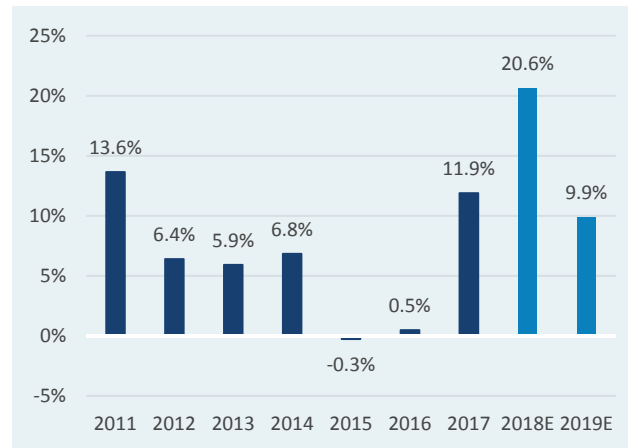
Fundamentals appear unchanged despite falling prices

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

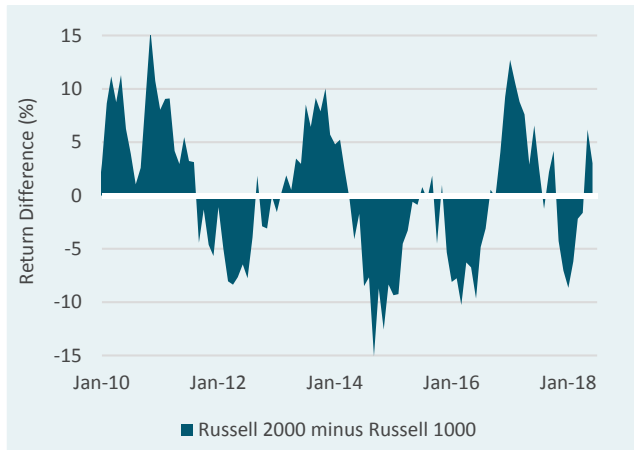
Large cap equities (Russell 1000 3.6%) underperformed small cap (Russell 2000 7.8%) during the quarter. Value stocks continued to lag growth (Russell 1000 Value 1.2% vs. Russell 1000 Growth 5.8%).

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.

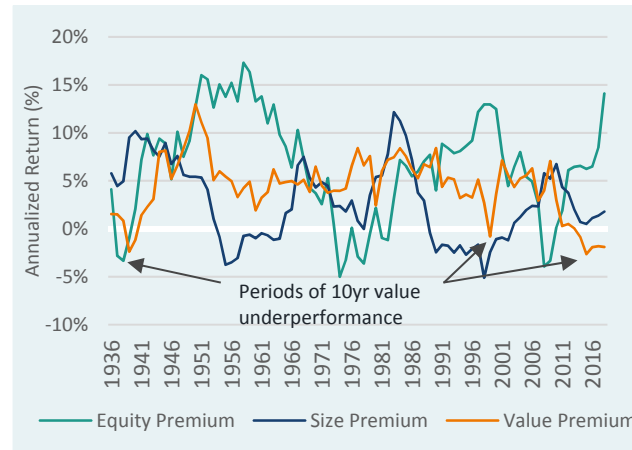
We do not yet see a catalyst for a value comeback, and it is possible that when value bounces back there will not be obvious signals beforehand. Poor recent performance is not always a solid standalone indicator of future reversal. Relative valuations are fairly in line with history, and the economic 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)



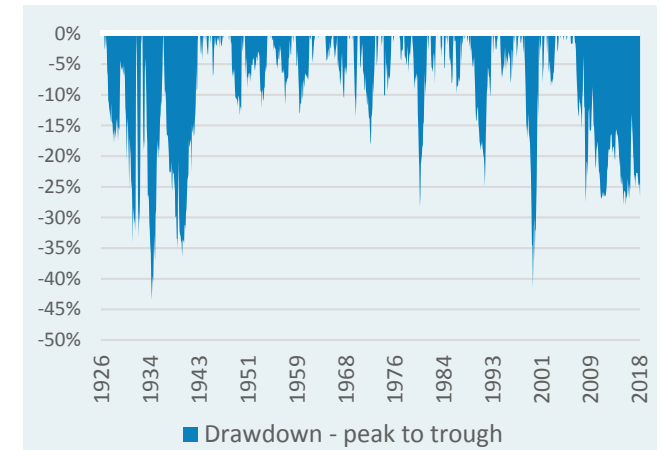
Source: FTSE, as of 6/30/18

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

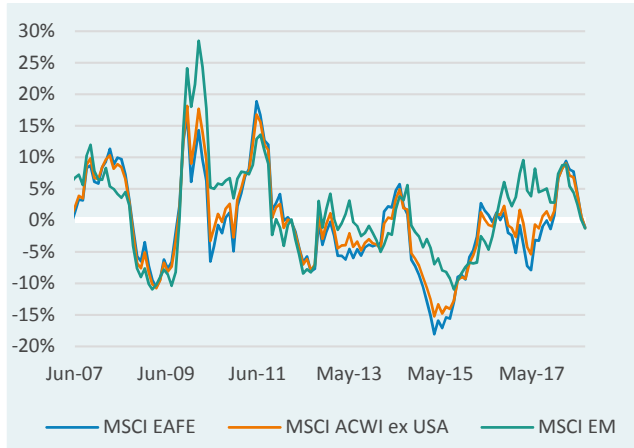
International developed equity

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.

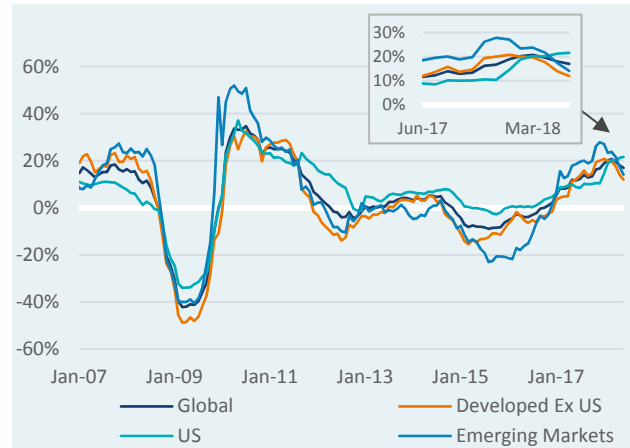
P/E multiples have moved lower as equity prices remain range bound and earnings grow at a brisk pace. Equity valuations are now closer to the longer-term average – a notable change from recent years.

EFFECT OF CURRENCY (1-YEAR ROLLING)



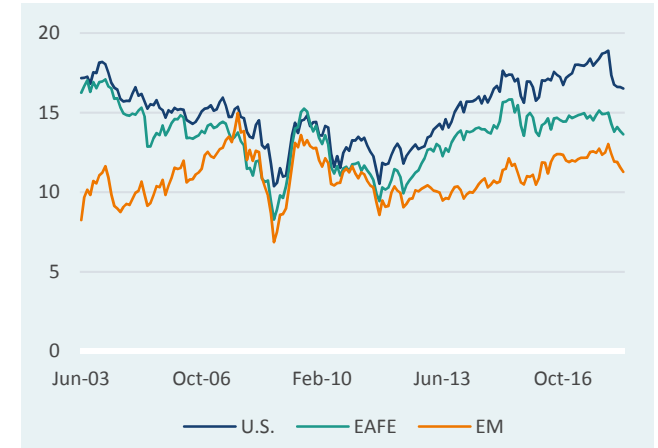
Source: MSCI, as of 6/30/18

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.

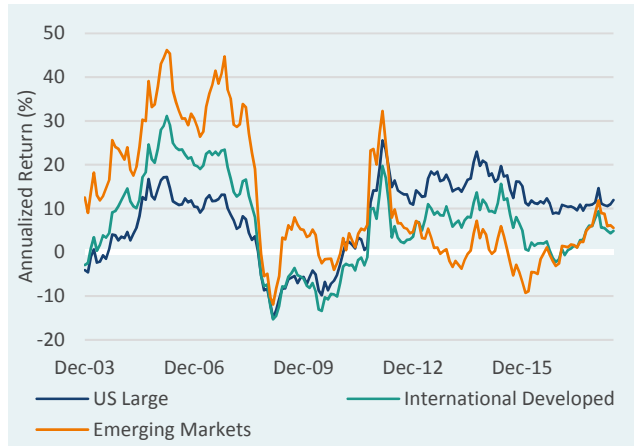
We maintain an overweight position to equities through a positive tilt to emerging markets. Equity bull runs in these markets through history typically incur at least a 10% drawdown sometime during the rally (see next page). Recent price swings were driven by valuation changes rather than by a fundamental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

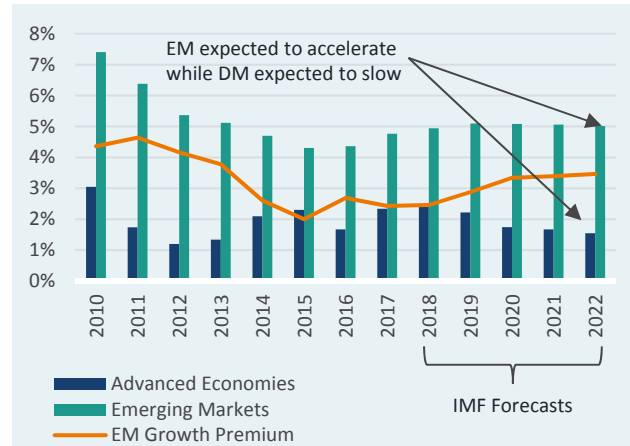
Conditions remain positive for EM equity

EQUITY PERFORMANCE (3YR ROLLING)



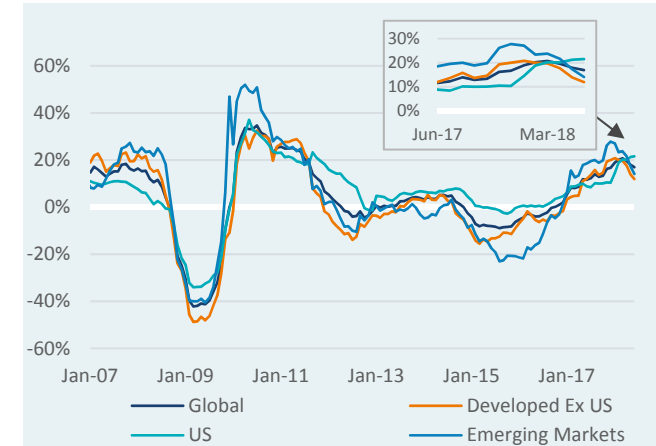
Source: Standard & Poor's, MSCI, as of 6/30/18

EM GROWTH PREMIUM



Source: IMF

EARNINGS GROWTH (YOY)



Source: MSCI, as of 6/30/18

Interest rate environment

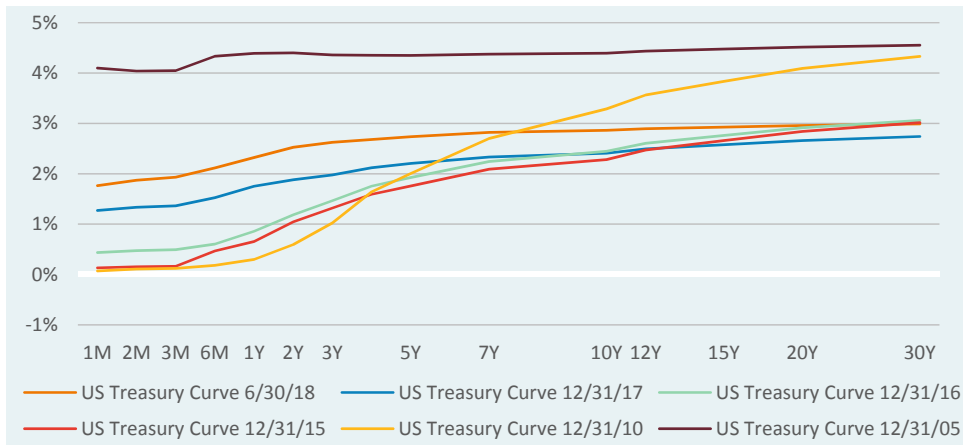
- The Fed raised interest rates in June for the second time this year to a target range of 1.8-2.0%. The balance sheet unwind continued as planned with approximately \$18 billion in Treasuries and \$12 billion in MBS coming off each month during the quarter.
- According to the Fed dot plot, officials 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%

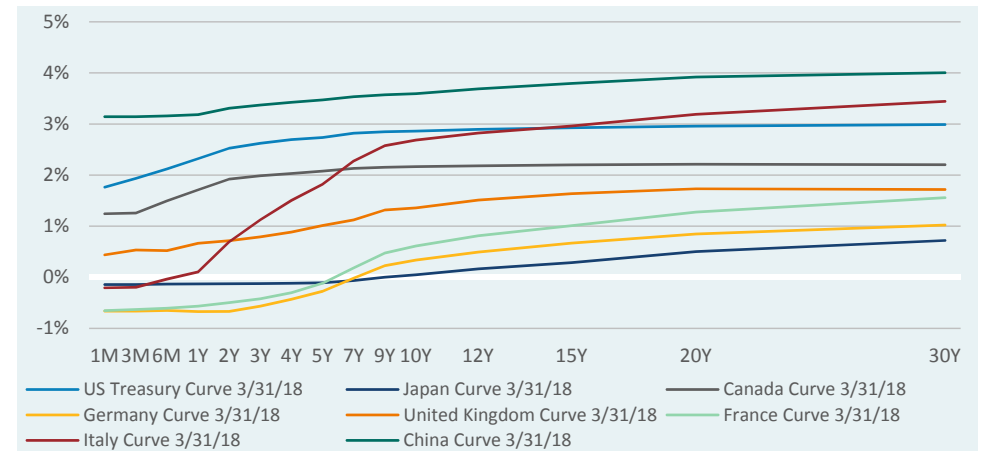
Source: Bloomberg, as of 6/30/18

Yield environment

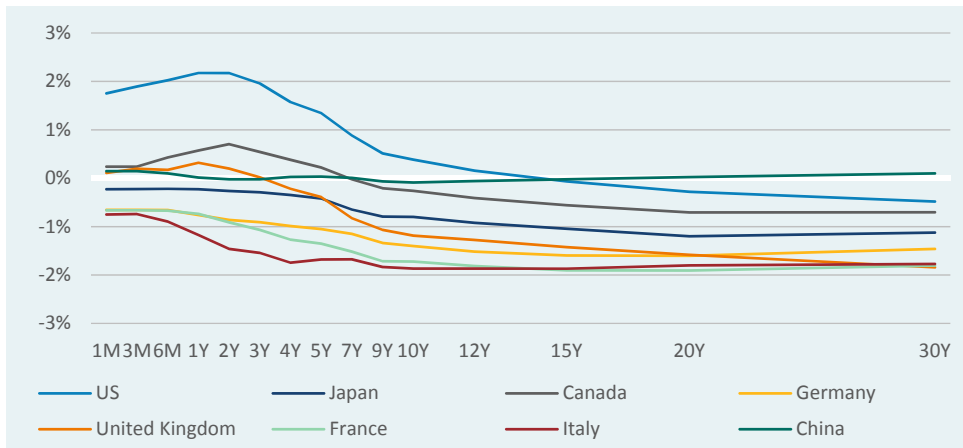
U.S. YIELD CURVE



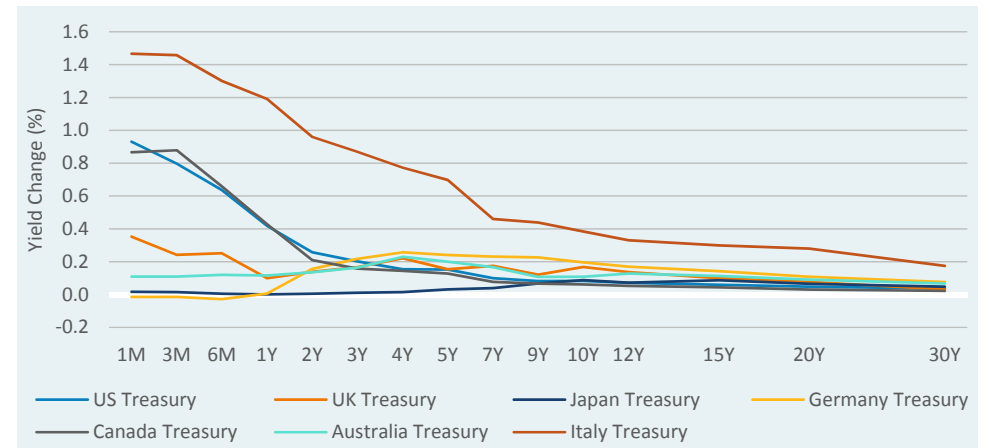
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/18

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



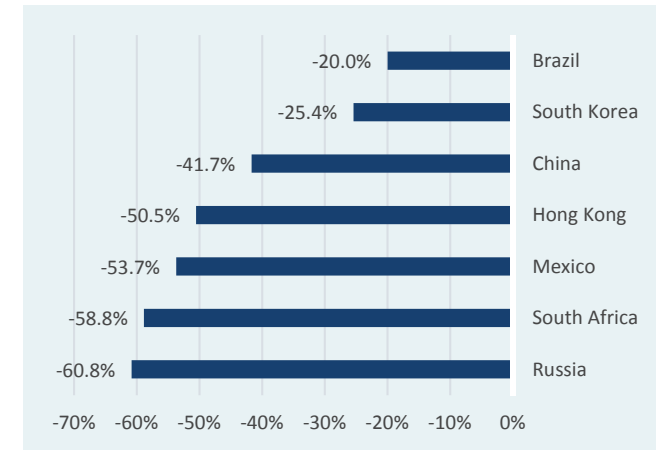
Source: Federal Reserve, as of 6/30/18

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

- The Total Fund, net of manager fees, returned 0.6% in the second quarter of 2018 and in the ranked 50th percentile among other public plans greater than \$1 billion (median of 0.6%). It lagged the policy index return of 0.8%. The Total Fund ex Overlay returned 0.5% for the quarter. The Total Fund one-year return of 6.7% lagged the policy index return of 7.8% and ranked in 92nd percentile of its peer universe. The three-year return of 6.5% (57th percentile) lagged the median large public plan (6.7%) and the policy index (7.0%).

- Second quarter results were enhanced by the following factors:
 1. D.E. Shaw returned 4.1% vs. 3.6% for the Russell 1000 Index and ranked in the top decile of the large cap core peer group. Both technical and fundamental forecasts contributed to excess return for the quarter while event driven forecasts were mixed.

- Second quarter results were hindered by the following factors:
 1. Western TRU returned -3.1% in the quarter, underperforming both 3-month LIBOR (0.6%) and the Bloomberg Barclays U.S. Aggregate Index (-0.2%). The portfolio's duration positioning and emerging markets exposure were the biggest detractors from performance.
 2. AQR DELTA XN posted a return of -6.1% for the quarter compared to 1.5% for 1-month LIBOR+4% and 0.1% for the All Multistrat median manager. The value factor was a significant driver of underperformance, especially in their equity market neutral and dedicated short strategies.

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	Rank*	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Fund**	0.6	50	0.1	75	6.7	92	9.6	83	6.5	57	8.0	41	6.1	48
<i>Policy Index¹</i>	0.8	43	0.1	74	7.8	63	10.1	67	7.0	34	8.2	30	6.8	18
<i>InvestorForce Public DB > \$1B Net Median</i>	0.6		0.6		8.0		10.4		6.7		7.5		6.1	
Total Fund ex Overlay	0.5	53	0.1	75	6.6	93	9.6	81	6.5	57	7.9	44	6.1	50
<i>Policy Index¹</i>	0.8	43	0.1	74	7.8	63	10.1	67	7.0	34	8.2	30	6.8	18
<i>InvestorForce Public DB > \$1B Net Median</i>	0.6		0.6		8.0		10.4		6.7		7.5		6.1	
Public Equity	1.0	55	0.3	71	10.9	72	14.7	73	8.7	60	10.2	63	6.9	69
<i>Blended Public Equity Index¹</i>	1.0	57	0.2	71	11.8	45	15.9	36	9.1	48	10.6	50	7.7	40
<i>InvestorForce All DB Total Eq Net Median</i>	1.2		0.9		11.7		15.4		9.1		10.6		7.5	
US Equity	4.0	35	3.3	46	15.0	40	16.6	52	11.0	51	12.6	58	9.5	69
<i>Blended US Equity Index¹</i>	3.9	47	3.2	53	14.8	47	16.8	44	11.3	42	13.1	37	10.3	25
<i>Russell 3000</i>	3.9	47	3.2	53	14.8	47	16.6	50	11.6	30	13.3	21	10.2	25
<i>InvestorForce All DB US Eq Net Median</i>	3.9		3.3		14.7		16.6		11.0		12.8		9.8	
Large Cap Equity	3.7	32	3.0	37	15.1	36	17.3	35	12.2	23	13.5	31	9.7	49
<i>Russell 1000</i>	3.6	34	2.9	38	14.5	40	16.3	42	11.6	27	13.4	32	10.2	36
<i>eV US Large Cap Equity Net Median</i>	2.6		1.4		12.6		15.3		9.9		12.1		9.6	
<i>BlackRock Russell 1000***</i>	3.6	20	2.9	27	14.5	32	--	--	--	--	--	--	--	--
<i>DE Shaw</i>	4.1	10	3.7	16	17.8	10	18.6	10	13.6	3	14.7	5	--	--
<i>Russell 1000</i>	3.6	20	2.9	27	14.5	32	16.3	35	11.6	18	13.4	25	10.2	25
<i>eV US Large Cap Core Equity Net Median</i>	2.4		1.4		12.9		15.0		10.0		12.3		9.5	
Small Cap Equity	6.8	50	6.0	51	14.6	59	18.2	59	8.6	78	10.4	78	9.2	81
<i>Russell 2000</i>	7.8	39	7.7	40	17.6	43	21.0	37	11.0	45	12.5	47	10.6	53
<i>eV US Small Cap Equity Net Median</i>	6.7		6.1		16.0		19.4		10.6		12.3		10.8	

* Total Fund and asset class aggregates are ranked in InvestorForce universes. Managers are ranked in eVest (eA) manager universes.

** Includes Parametric Minneapolis manager funded in August 2013.

***Funded January 2017.

1. See Appendix for Benchmark History.

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
QMA US Small Cap	6.8	46	6.0	52	14.6	65	--	--	--	--	--	--	--	--
<i>Russell 2000</i>	7.8	35	7.7	38	17.6	36	21.0	26	11.0	47	12.5	57	10.6	52
<i>eV US Small Cap Core Equity Net Median</i>	6.5		6.3		16.1		19.3		10.8		12.8		10.7	
International Equity	-2.3	25	-3.2	37	6.4	61	12.2	83	5.5	43	6.4	50	2.1	81
<i>MSCI ACWI ex US IMI¹</i>	-2.6	33	-3.6	51	7.8	34	14.2	45	5.8	35	6.7	38	3.1	51
<i>MSCI EAFE Gross</i>	-1.0	9	-2.4	21	7.4	40	13.9	51	5.4	45	6.9	31	3.3	43
<i>InvestorForce All DB ex-US Eq Net Median</i>	-3.2		-3.6		7.0		13.9		5.3		6.4		3.1	
Developed Markets	-1.3	39	-2.6	49	6.8	58	12.5	62	5.7	44	6.8	54	2.4	79
<i>MSCI ACWI ex USA Gross</i>	-2.4	67	-3.4	63	7.8	42	14.2	43	5.6	50	6.5	61	3.0	65
<i>InvestorForce All DB Dev Mkt ex-US Eq Net Median</i>	-1.7		-2.6		7.3		13.6		5.5		6.9		3.4	
Baillie Gifford	0.4	38	-0.4	70	9.7	80	14.9	68	7.8	65	8.6	55	--	--
<i>MSCI ACWI ex US¹</i>	-2.4	85	-3.4	92	7.8	92	14.2	81	5.6	90	6.9	90	--	--
<i>MSCI ACWI ex US Growth¹</i>	-1.2	63	-2.0	79	10.3	76	14.0	83	6.9	72	8.0	75	--	--
<i>eV ACWI ex-US Growth Equity Net Median</i>	-0.7		0.5		14.3		16.7		9.0		8.8		5.4	
BlackRock EAFE Index	-0.8	31	-2.4	48	7.3	61	13.8	52	5.3	61	--	--	--	--
<i>MSCI EAFE</i>	-1.2	46	-2.7	55	6.8	65	13.4	58	4.9	66	6.4	77	2.8	86
<i>MSCI EAFE Gross</i>	-1.0	35	-2.4	48	7.4	60	13.9	50	5.4	60	6.9	63	3.3	66
<i>eV EAFE Core Equity Net Median</i>	-1.5		-2.6		8.1		13.9		6.1		7.4		3.8	
Mondrian	-3.5	60	-4.8	46	3.9	60	9.6	76	3.8	59	5.2	66	2.8	63
<i>MSCI ACWI ex USA Value Gross</i>	-3.6	62	-4.9	46	5.3	38	14.4	37	4.1	58	5.3	66	2.6	67
<i>MSCI ACWI ex USA Gross</i>	-2.4	28	-3.4	27	7.8	16	14.2	39	5.6	32	6.5	48	3.0	58
<i>eV ACWI ex-US Value Equity Net Median</i>	-3.2		-5.1		4.5		13.3		4.4		6.4		3.2	
Emerging Markets	-9.5	73	-8.2	68	3.1	72	9.8	85	3.7	81	3.0	79	--	--
<i>MSCI Emerging Markets Gross</i>	-7.9	14	-6.5	16	8.6	14	16.1	28	6.0	31	5.4	18	2.6	7
<i>InvestorForce All DB Emg Mkt Eq Net Median</i>	-9.1		-7.4		5.0		12.8		4.9		4.4		1.9	

1. See Appendix for Benchmark History.

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Parametric Core	-9.5	73	-8.2	72	3.1	80	9.8	88	--	--	--	--	--	--
MSCI Emerging Markets Gross	-7.9	41	-6.5	42	8.6	35	16.1	39	6.0	43	5.4	48	2.6	54
eV Emg Mkts Equity Net Median	-8.5		-7.0		7.2		15.0		5.6		5.1		2.7	
Fixed Income	-0.3	50	-0.7	25	1.0	22	4.0	8	3.5	24	3.7	25	5.3	26
Blended Fixed Income Index ¹	-0.1	34	-1.6	66	0.0	62	1.1	54	2.6	47	2.7	51	4.0	71
InvestorForce All DB Total Fix Inc Net Median	-0.3		-1.2		0.3		1.3		2.5		2.7		4.6	
Core Fixed	-0.6	--	-1.6	--	-0.2	--	1.4	--	2.5	--	3.0	--	4.5	--
BBgBarc US Aggregate TR	-0.2	--	-1.6	--	-0.4	--	-0.4	--	1.7	--	2.3	--	3.7	--
BlackRock Intermediate Govt	0.1	41	-0.6	8	-0.5	63	--	--	--	--	--	--	--	--
BBgBarc US Govt Int TR	0.1	62	-0.7	17	-0.7	69	-1.0	58	0.6	66	1.0	69	2.4	77
eV US Government Fixed Inc Net Median	0.1		-0.8		-0.3		-0.9		1.1		1.4		2.9	
FIAM Bond	0.0	17	-1.4	26	0.2	21	0.6	17	2.4	15	2.9	17	4.7	16
BBgBarc US Aggregate TR	-0.2	42	-1.6	51	-0.4	57	-0.4	69	1.7	63	2.3	63	3.7	79
Western TRU	-3.1	99	-3.8	99	-0.7	80	4.1	1	--	--	--	--	--	--
3-Month Libor Total Return USD	0.6	2	1.1	1	1.8	2	1.4	7	1.1	96	0.8	99	0.7	99
BBgBarc US Aggregate TR	-0.2	42	-1.6	51	-0.4	57	-0.4	69	1.7	63	2.3	63	3.7	79
eV US Core Fixed Inc Net Median	-0.2		-1.6		-0.4		-0.1		1.9		2.4		4.1	
Opportunistic Credit	0.4	--	1.4	--	4.0	--	9.3	--	6.3	--	6.7	--	--	--
BBgBarc BA Intermediate HY ¹	0.0	--	-1.5	--	0.4	--	4.7	--	4.4	--	4.4	--	--	--
Angelo Gordon Opportunistic**	9.5	--	15.4	--	24.8	--	20.6	--	13.2	--	--	--	--	--
Angelo Gordon STAR**	4.8	--	11.7	--	20.3	--	18.6	--	12.1	--	12.5	--	--	--
BBgBarc US Aggregate TR	-0.2	--	-1.6	--	-0.4	--	-0.4	--	1.7	--	2.3	--	3.7	--
Beach Point Select	2.0	3	3.2	3	7.2	4	10.5	5	8.3	1	--	--	--	--
BBgBarc BA Intermediate HY ¹	0.0	91	-1.5	95	0.4	97	4.7	91	4.4	60	4.4	76	--	--
eV US High Yield Fixed Inc Net Median	0.6		-0.1		2.2		6.7		4.6		4.8		7.3	

** Preliminary return as of 6/30/2018.

1. See Appendix for Benchmark History.

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Brigade Capital	1.5	7	2.6	5	4.4	14	10.1	6	6.0	12	4.9	45	--	--
BBgBarc BA Intermediate HY ¹	0.0	91	-1.5	95	0.4	97	4.7	91	4.4	60	4.4	76	--	--
50% Barclays HY/ 50% Bank Loan	0.9	29	1.3	16	3.6	20	6.8	47	4.9	37	4.9	46	--	--
eV US High Yield Fixed Inc Net Median	0.6		-0.1		2.2		6.7		4.6		4.8		7.3	
PIMCO Diversified**	-0.7	99	-1.4	93	--	--	--	--	--	--	--	--	--	--
Blended PIMCO Diversified Index ¹	-1.1	99	-2.4	99	0.2	99	3.2	99	4.3	61	4.6	63	6.6	80
BBgBarc BA Intermediate HY	0.0	91	-1.5	95	0.4	97	4.7	91	4.4	60	4.4	76	--	--
eV US High Yield Fixed Inc Net Median	0.6		-0.1		2.2		6.7		4.6		4.8		7.3	
Franklin Templeton	-4.3	86	-2.4	69	-2.5	96	4.0	37	1.5	88	1.9	70	--	--
BBgBarc Multiverse TR	-2.8	65	-1.6	45	1.3	42	0.0	85	2.8	57	1.7	75	2.8	78
eV All Global Fixed Inc Net Median	-1.7		-1.8		1.0		2.5		3.0		2.8		4.1	
Private Credit	1.3	--	3.2	--	5.9	--	--	--	--	--	--	--	--	--
Cliffwater Direct Lending Index	2.2	--	4.4	--	8.6	--	9.5	--	8.2	--	9.2	--	9.5	--
TCP Direct Lending VIII ¹	2.2	3	2.9	4	6.3	4	--	--	--	--	--	--	--	--
White Oak Yield***	0.0	92	3.4	3	3.2	24	--	--	--	--	--	--	--	--
Cliffwater Direct Lending Index	2.2	3	4.4	2	8.6	2	9.5	9	8.2	1	9.2	1	9.5	2
eV US High Yield Fixed Inc Net Median	0.6		-0.1		2.2		6.7		4.6		4.8		7.3	
Risk Parity	-0.2	--	-1.6	--	6.6	--	5.3	--	5.5	--	6.5	--	--	--
Blended Risk Parity Index ¹	1.1	--	0.4	--	7.3	--	9.3	--	7.5	--	8.8	--	--	--
AQR GRP, 10% Volatility	-0.5	--	-1.7	--	7.6	--	6.7	--	4.2	--	5.1	--	--	--
PanAgora	0.0	--	-1.6	--	5.8	--	4.2	--	6.7	--	--	--	--	--
Blended Risk Parity Index ¹	1.1	--	0.4	--	7.3	--	9.3	--	7.5	--	8.8	--	--	--
Blended RP Secondary Index ¹	2.3	--	1.3	--	8.6	--	9.2	--	6.5	--	7.5	--	--	--

* Preliminary return as of 6/30/2018.

** Funded August 2017.

*** Funded June 2017.

1. See Appendix for Benchmark History.

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Alternatives	-1.2	--	-0.5	--	2.6	--	9.6	--	6.1	--	7.0	--	--	--
<i>Blended Alternatives Index</i> ¹	0.9	--	1.6	--	10.0	--	12.0	--	7.7	--	8.2	--	--	--
Private Equity**	2.2	50	7.1	37	9.3	75	18.8	9	13.5	18	16.9	10	--	--
<i>Blended Private Equity Index</i> ¹	0.2	80	0.4	93	13.6	47	17.5	11	13.2	20	15.5	15	12.9	2
<i>InvestorForce All DB Private Eq Net Median</i>	2.2		6.1		13.0		12.3		10.3		11.0		8.1	
Hedge Fund/Absolute Return	-4.6	98	-7.6	99	-3.6	97	0.4	96	2.5	51	4.1	46	--	--
<i>Libor 1 month +4%</i>	1.5	39	2.8	21	5.6	48	5.2	67	4.9	11	4.6	32	--	--
<i>InvestorForce All DB Hedge Funds Net Median</i>	1.3		1.5		5.3		6.3		2.5		3.9		2.7	
AQR DELTA XN	-6.1	92	-9.7	94	-4.9	92	-0.4	83	2.3	61	4.0	61	--	--
Aberdeen Standard GARS	-2.2	76	-4.0	78	-1.9	87	0.9	80	--	--	--	--	--	--
<i>Libor 1 month +4%</i>	1.5	32	2.8	30	5.6	43	5.2	54	4.9	43	4.6	55	--	--
<i>eV Alt All Multi-Strategy Median</i>	0.1		0.3		4.5		5.7		3.7		5.2		6.0	
Inflation Hedge	1.9	--	1.6	--	6.7	--	6.3	--	--	--	--	--	--	--
<i>Blended Inflation Hedge Index</i> ¹	1.4	--	0.9	--	7.2	--	5.7	--	--	--	--	--	--	--
Real Estate	1.7	76	3.9	35	7.8	27	8.0	20	9.0	22	10.7	12	5.0	17
NCREIF ODCE	2.1	41	4.3	8	8.4	5	8.2	19	9.4	12	11.0	5	5.7	9
<i>InvestorForce All DB Real Estate Pub Net Median</i>	1.9		3.5		6.9		6.8		7.8		9.6		4.4	
Invesco	1.8	--	4.1	--	7.9	--	8.1	--	8.9	--	10.6	--	5.0	--
NCREIF ODCE	2.1	--	4.3	--	8.4	--	8.2	--	9.4	--	11.0	--	5.7	--
Invesco US Val IV	1.7	--	4.2	--	11.7	--	10.4	--	--	--	--	--	--	--
NCREIF ODCE	2.1	--	4.3	--	8.4	--	8.2	--	9.4	--	11.0	--	5.7	--
NCREIF CEVA 1Q Lag - NET	2.1	--	5.6	--	11.6	--	10.4	--	12.4	--	--	--	--	--
PGIM RE US Debt Fund***	1.2	--	2.2	--	--	--	--	--	--	--	--	--	--	--
NCREIF ODCE	2.1	--	4.3	--	8.4	--	8.2	--	9.4	--	11.0	--	5.7	--

** Returns are one-quarter lag.

*** Funded July 2017.

1. See Appendix for Benchmark History.

Total Fund
Performance Summary (Net of Fees)

Period Ending: June 30, 2018

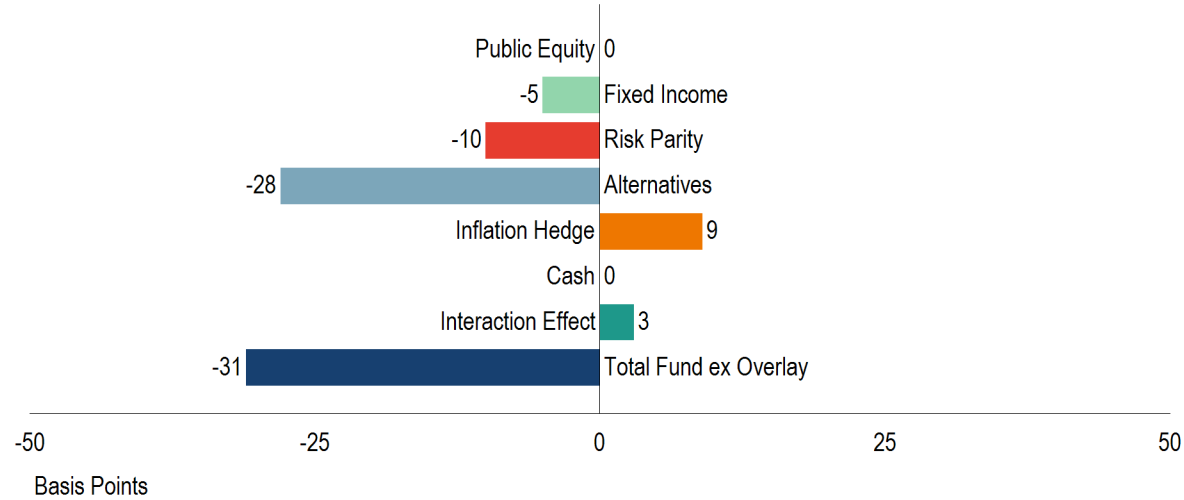
	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	2 Yrs (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Real Asset**	1.6	--	-0.3	--	-5.8	--	-1.6	--	10.2	--	--	--	--	--
<i>Blended Private Real Asset Index¹</i>	-4.0	--	-7.1	--	1.9	--	3.4	--	4.4	--	--	--	--	--
<i>Blended Secondary CA Private RA Index¹</i>	1.6	--	5.5	--	10.7	--	13.3	--	7.9	--	--	--	--	--
Liquid Real Asset	2.7	--	-0.2	--	10.2	--	--	--	--	--	--	--	--	--
<i>Blended Liquid Real Asset Index¹</i>	2.5	--	-0.8	--	8.9	--	6.9	--	6.7	--	--	--	--	--
SSgA Custom Real Asset	2.7	--	-0.2	--	10.2	--	--	--	--	--	--	--	--	--
<i>Blended Liquid Real Asset Index¹</i>	2.5	--	-0.8	--	8.9	--	6.9	--	6.7	--	--	--	--	--
TIPS	0.7	--	0.5	--	2.4	--	1.7	--	1.8	--	1.3	--	--	--
<i>BBgBarc US TIPS TR</i>	0.8	--	0.0	--	2.1	--	0.7	--	1.9	--	1.7	--	3.0	--
Brown Brothers Harriman	0.7	32	0.5	13	2.4	24	1.7	19	1.8	45	1.3	62	--	--
<i>BBgBarc US TIPS TR</i>	0.8	24	0.0	42	2.1	41	0.7	39	1.9	32	1.7	26	3.0	56
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>	0.7	--	-0.1	--	2.0	--	0.7	--	1.8	--	1.5	--	3.1	--
Cash	0.3	--	0.5	--	1.0	--	0.9	--	1.1	--	0.8	--	0.5	--
<i>91 Day T-Bills</i>	0.5	--	0.8	--	1.4	--	1.0	--	0.7	--	0.4	--	0.3	--
General Account	1.1	--	1.5	--	2.7	--	1.9	--	2.0	--	1.4	--	0.9	--
Treasury & LAIF	0.4	--	2.7	--	3.2	--	1.8	--	1.6	--	1.3	--	0.6	--
<i>91 Day T-Bills</i>	0.5	--	0.8	--	1.4	--	1.0	--	0.7	--	0.4	--	0.3	--

** Returns are one-quarter lag.

1. See Appendix for Benchmark History.

Total Fund ex Overlay
Performance Attribution

Period Ending: June 30, 2018

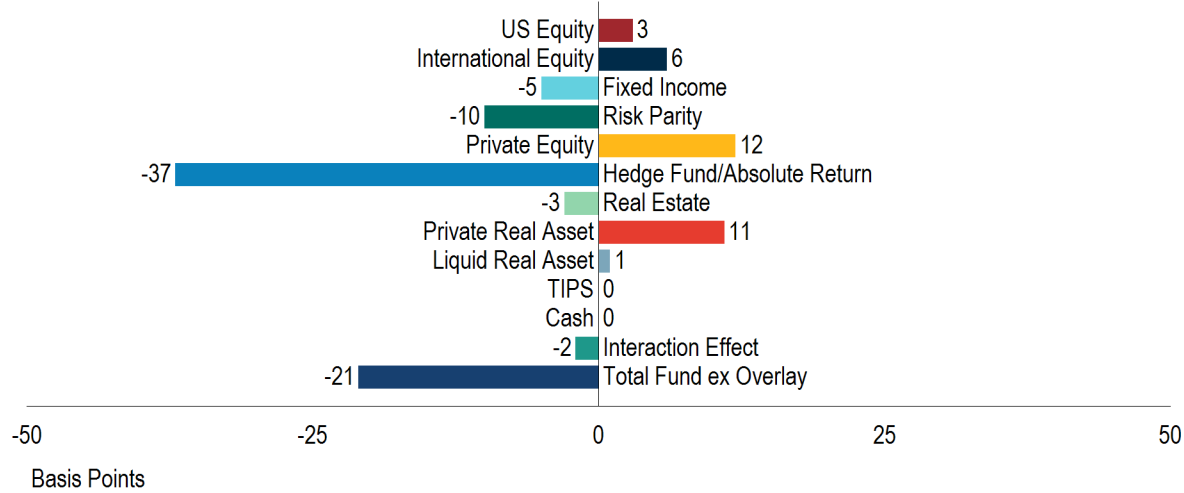


	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Public Equity	1.05%	1.04%	0.01%	0.00%	0.00%	0.00%	0.01%
Fixed Income	-0.32%	-0.09%	-0.23%	-0.05%	0.00%	0.00%	-0.04%
Risk Parity	-0.20%	1.12%	-1.32%	-0.10%	0.00%	0.01%	-0.10%
Alternatives	-1.22%	0.87%	-2.08%	-0.28%	0.00%	0.03%	-0.25%
Inflation Hedge	1.91%	1.41%	0.51%	0.09%	0.00%	0.00%	0.08%
Cash	0.32%	0.46%	-0.13%	0.00%	-0.01%	0.00%	-0.01%
Total	0.55%	0.86%	-0.31%	-0.34%	-0.01%	0.03%	-0.31%

Attribution does not include the impact of the Parametric Minneapolis strategy.
* Interaction Effects include Residual Effects.

Total Fund ex Overlay
Performance Attribution

Period Ending: June 30, 2018

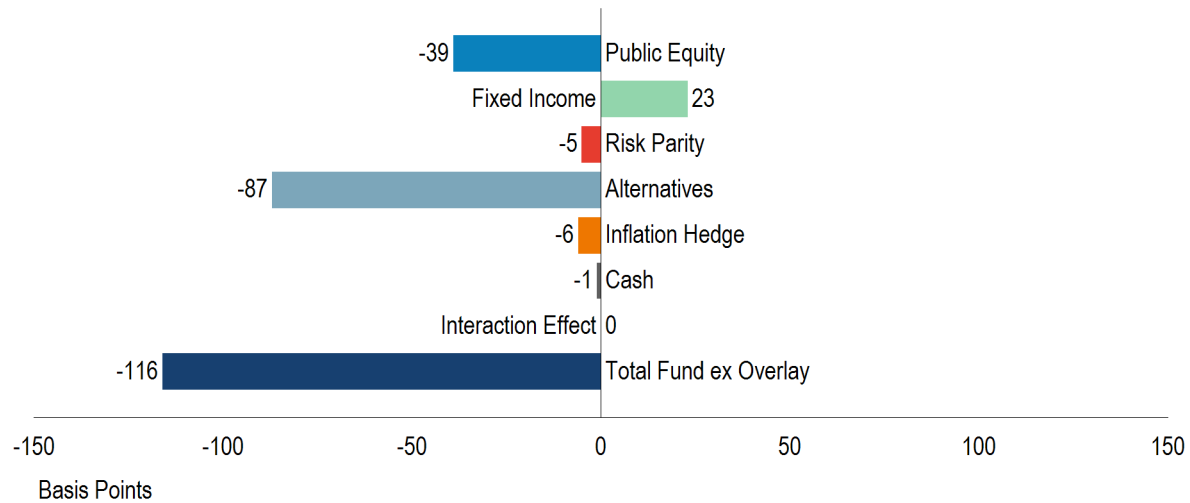


	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	4.03%	3.89%	0.14%	0.03%	0.04%	0.00%	0.07%
International Equity	-2.29%	-2.61%	0.33%	0.06%	-0.02%	0.00%	0.04%
Fixed Income	-0.32%	-0.09%	-0.23%	-0.05%	0.00%	0.00%	-0.04%
Risk Parity	-0.20%	1.12%	-1.32%	-0.10%	0.00%	0.01%	-0.10%
Private Equity	2.17%	0.22%	1.95%	0.12%	0.00%	-0.01%	0.11%
Hedge Fund/Absolute Return	-4.63%	1.51%	-6.13%	-0.37%	0.00%	0.01%	-0.36%
Real Estate	1.66%	2.05%	-0.39%	-0.03%	0.00%	0.00%	-0.03%
Private Real Asset	1.64%	-4.02%	5.65%	0.11%	0.03%	-0.03%	0.11%
Liquid Real Asset	2.73%	2.50%	0.23%	0.01%	0.00%	0.00%	0.01%
TIPS	0.74%	0.77%	-0.03%	0.00%	0.00%	0.00%	0.00%
Cash	0.32%	0.46%	-0.13%	0.00%	-0.01%	0.00%	-0.01%
Total	0.55%	0.76%	-0.21%	-0.22%	0.03%	-0.02%	-0.21%

Attribution does not include the impact of the Parametric Minneapolis strategy.
* Interaction Effects include Residual Effects.

Total Fund ex Overlay
Performance Attribution (1 Year)

Period Ending: June 30, 2018

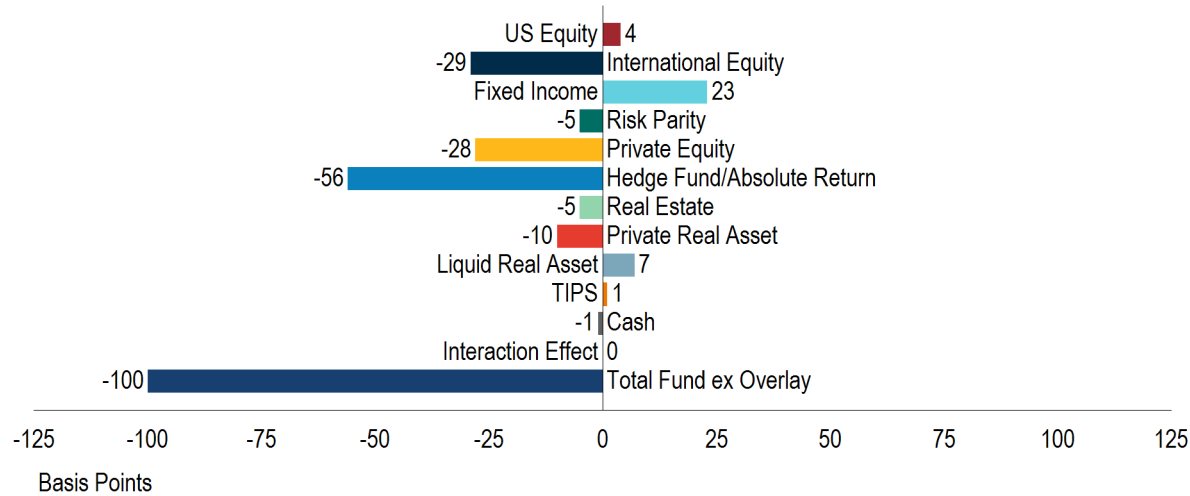


	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Public Equity	10.90%	11.83%	-0.93%	-0.39%	0.00%	0.00%	-0.39%
Fixed Income	1.01%	-0.02%	1.03%	0.23%	0.00%	0.00%	0.23%
Risk Parity	6.64%	7.32%	-0.68%	-0.05%	0.00%	0.00%	-0.05%
Alternatives	2.62%	9.97%	-7.35%	-0.87%	0.00%	0.00%	-0.87%
Inflation Hedge	6.68%	7.18%	-0.49%	-0.06%	0.00%	0.00%	-0.06%
Cash	0.98%	1.40%	-0.42%	-0.01%	0.00%	0.00%	-0.01%
Total	6.69%	7.85%	-1.16%	-1.16%	0.00%	0.00%	-1.16%

Attribution does not include the impact of the Parametric Minneapolis strategy.
* Interaction Effects include Residual Effects.

Total Fund ex Overlay
Performance Attribution (1 Year)

Period Ending: June 30, 2018



	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	14.96%	14.78%	0.18%	0.04%	0.00%	0.00%	0.04%
International Equity	6.39%	7.84%	-1.45%	-0.29%	0.00%	0.00%	-0.29%
Fixed Income	1.01%	-0.02%	1.03%	0.23%	0.00%	0.00%	0.23%
Risk Parity	6.64%	7.32%	-0.68%	-0.05%	0.00%	0.00%	-0.05%
Private Equity	9.27%	13.60%	-4.33%	-0.28%	0.00%	0.00%	-0.28%
Hedge Fund/Absolute Return	-3.61%	5.59%	-9.20%	-0.56%	0.00%	0.00%	-0.56%
Real Estate	7.77%	8.44%	-0.68%	-0.05%	0.00%	0.00%	-0.05%
Private Real Asset	-5.82%	1.94%	-7.75%	-0.10%	0.00%	0.00%	-0.10%
Liquid Real Asset	10.17%	8.86%	1.31%	0.07%	0.00%	0.00%	0.07%
TIPS	2.41%	2.11%	0.29%	0.01%	0.00%	0.00%	0.01%
Cash	0.98%	1.40%	-0.42%	-0.01%	0.00%	0.00%	-0.01%
Total	6.69%	7.69%	-1.00%	-1.00%	0.00%	0.00%	-1.00%

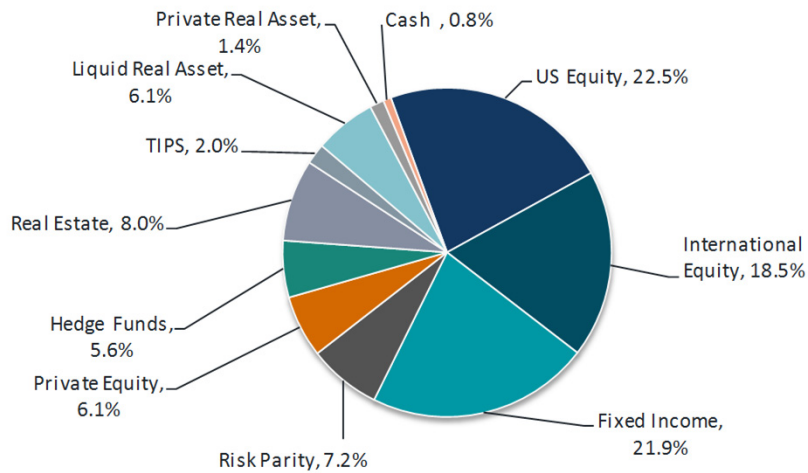
Attribution does not include the impact of the Parametric Minneapolis strategy.
* Interaction Effects include Residual Effects.

Total Fund

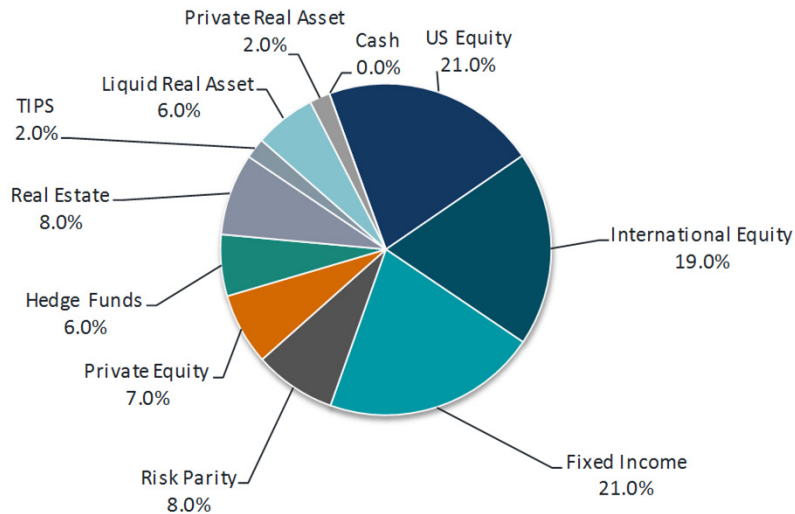
Asset Allocation Analysis

Period Ending: June 30, 2018

Current w/Overlay



Target

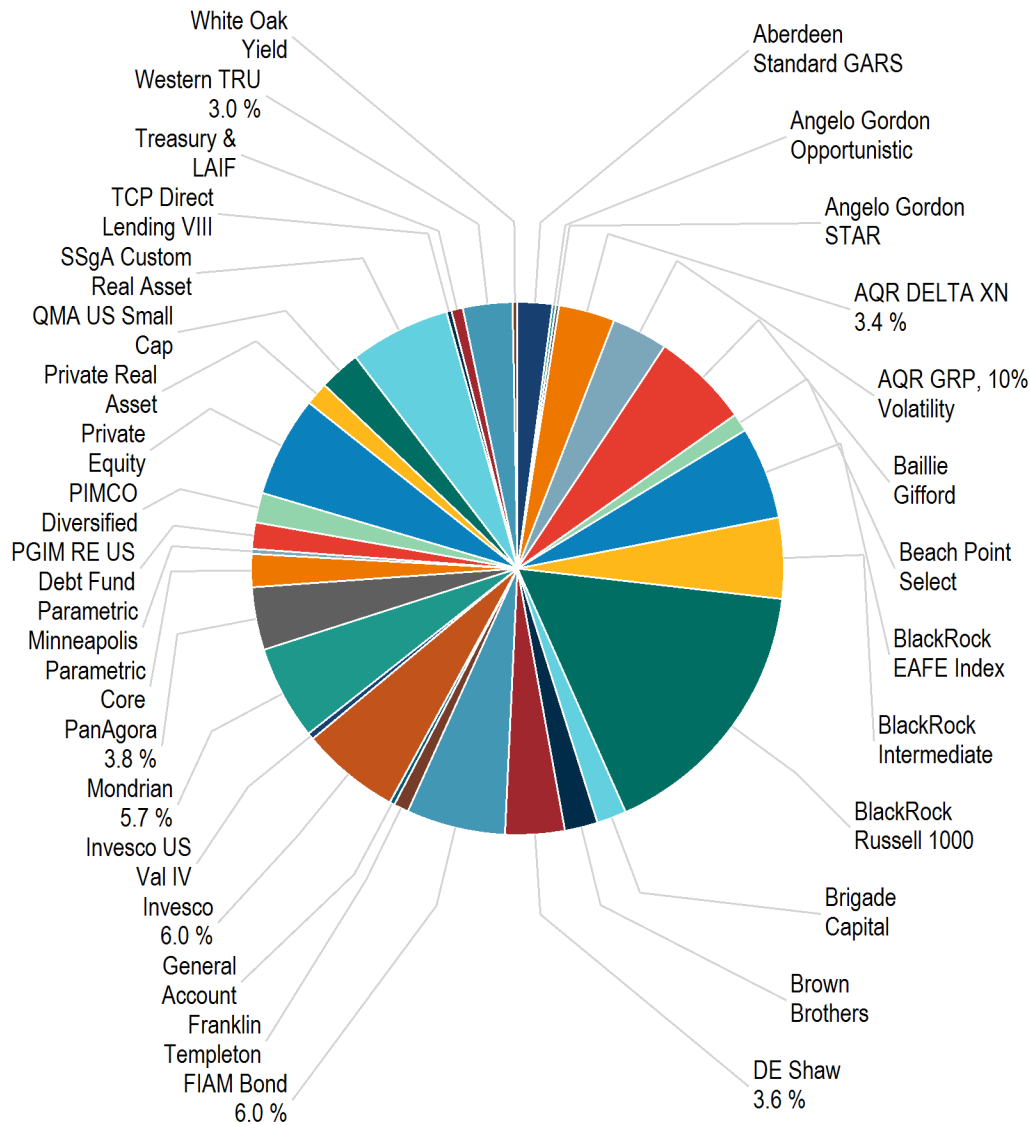


ASSET ALLOCATION	MARKET VALUE	
	W/OVERLAY	W/O OVERLAY
US Equity	979,892,441	22.5%
International Equity	802,247,060	18.5%
Fixed Income	951,040,730	21.9%
Risk Parity	311,126,437	7.2%
Private Equity	265,216,316	6.1%
Hedge Funds	242,487,780	5.6%
Real Estate	349,481,013	8.0%
TIPS	87,884,436	2.0%
Liquid Real Asset	263,283,878	6.1%
Private Real Asset	60,923,620	1.4%
Cash	33,581,421	0.8%
TOTAL	4,347,165,132	100.0%

ASSET ALLOCATION	W/OVERLAY	TARGET	DIFF
US Equity	22.5%	21.0%	1.5%
International Equity	18.5%	19.0%	-0.5%
Fixed Income	21.9%	21.0%	0.9%
Risk Parity	7.2%	8.0%	-0.8%
Private Equity	6.1%	7.0%	-0.9%
Hedge Funds	5.6%	6.0%	-0.4%
Real Estate	8.0%	8.0%	0.0%
TIPS	2.0%	2.0%	0.0%
Liquid Real Asset	6.1%	6.0%	0.1%
Private Real Asset	1.4%	2.0%	-0.6%
Cash	0.8%	0.0%	0.8%
TOTAL	100.0%	100.0%	0.0%

Total Fund Manager Allocation Analysis

Period Ending: June 30, 2018



	Actual	Actual
Aberdeen Standard GARS	\$93,153,328	2%
Angelo Gordon Opportunistic	\$8,364,000	0%
Angelo Gordon STAR	\$7,115,000	0%
AQR DELTA XN	\$149,334,452	3%
AQR GRP, 10% Volatility	\$146,542,711	3%
Baillie Gifford	\$255,036,354	6%
Beach Point Select	\$49,950,983	1%
BlackRock EAFE Index	\$241,931,578	6%
BlackRock Intermediate Govt	\$214,832,349	5%
BlackRock Russell 1000	\$718,797,337	17%
Brigade Capital	\$77,316,071	2%
Brown Brothers Harriman	\$87,884,436	2%
DE Shaw	\$156,868,228	4%
FIAM Bond	\$260,132,045	6%
Franklin Templeton	\$40,054,137	1%
General Account	\$15,190,030	0%
Invesco	\$260,104,438	6%
Invesco US Val IV	\$19,365,633	0%
Mondrian	\$245,977,329	6%
PanAgora	\$164,583,726	4%
Parametric Core	\$88,129,672	2%
Parametric Minneapolis Overlay	\$12,467,647	0%
PGIM RE US Debt Fund	\$70,010,942	2%
PIMCO Diversified	\$79,776,722	2%
Private Equity	\$265,216,316	6%
Private Real Asset	\$60,923,620	1%
QMA US Small Cap	\$106,797,477	2%
SSgA Custom Real Asset	\$263,283,878	6%
TCP Direct Lending VIII	\$12,689,543	0%
Transition 3	\$99	0%
Treasury & LAIF	\$31,679,559	1%
Western TRU	\$128,491,710	3%
White Oak Yield	\$15,163,783	0%
Total	\$4,347,165,132	100%

Statistics Summary

3 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	6.5%	57	6.1%	58	1.0	62	-0.4	74	1.0%	40
Policy Index	7.0%	34	6.6%	79	1.0	63	--	--	0.0%	1
InvestorForce Public DB > \$1B Net Median	6.7%	--	5.7%	--	1.0	--	0.0	--	1.1%	--

Statistics Summary

5 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	8.0%	41	6.0%	62	1.3	46	-0.3	72	1.0%	33
Policy Index	8.2%	30	6.4%	79	1.2	54	--	--	0.0%	1
InvestorForce Public DB > \$1B Net Median	7.5%	--	5.7%	--	1.2	--	0.0	--	1.1%	--

Statistics Summary

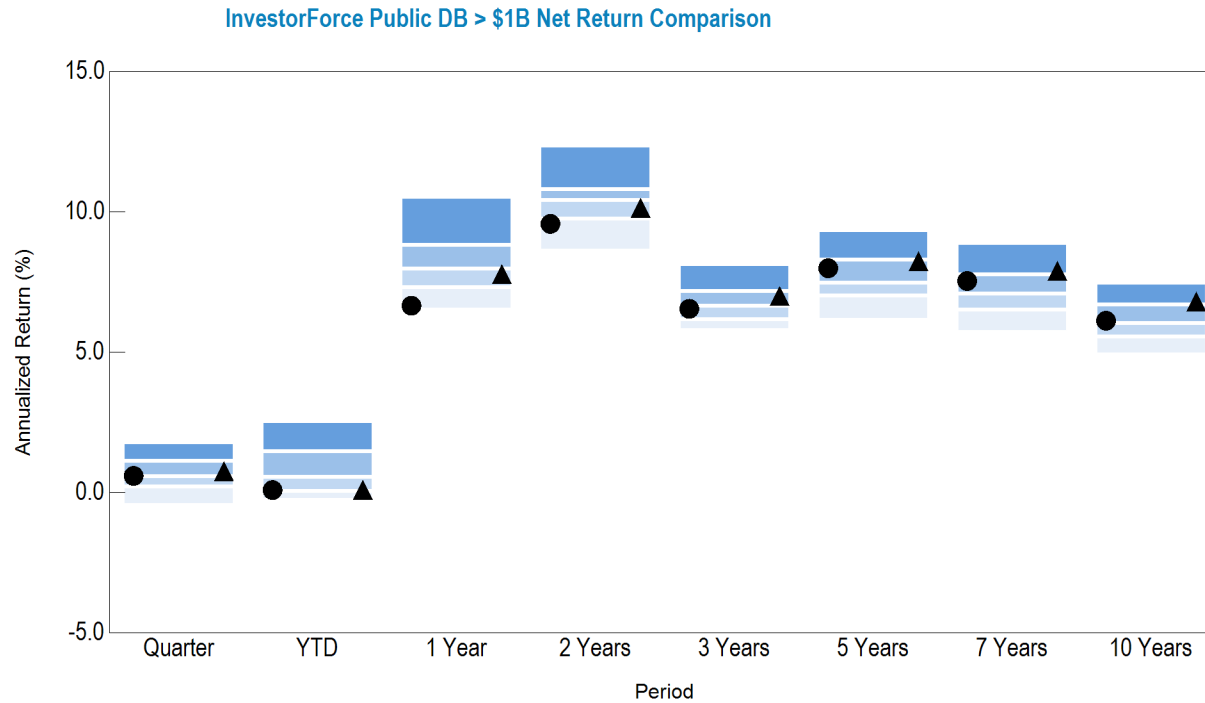
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Cash	1.1%	0.4%	1.0	0.9	0.4%
91 Day T-Bills	0.7%	0.2%	0.0	--	0.0%
General Account	2.0%	0.7%	1.9	2.0	0.6%
91 Day T-Bills	0.7%	0.2%	0.0	--	0.0%
Treasury & LAIF	1.6%	0.9%	1.0	1.0	0.9%
91 Day T-Bills	0.7%	0.2%	0.0	--	0.0%

Statistics Summary

5 Years

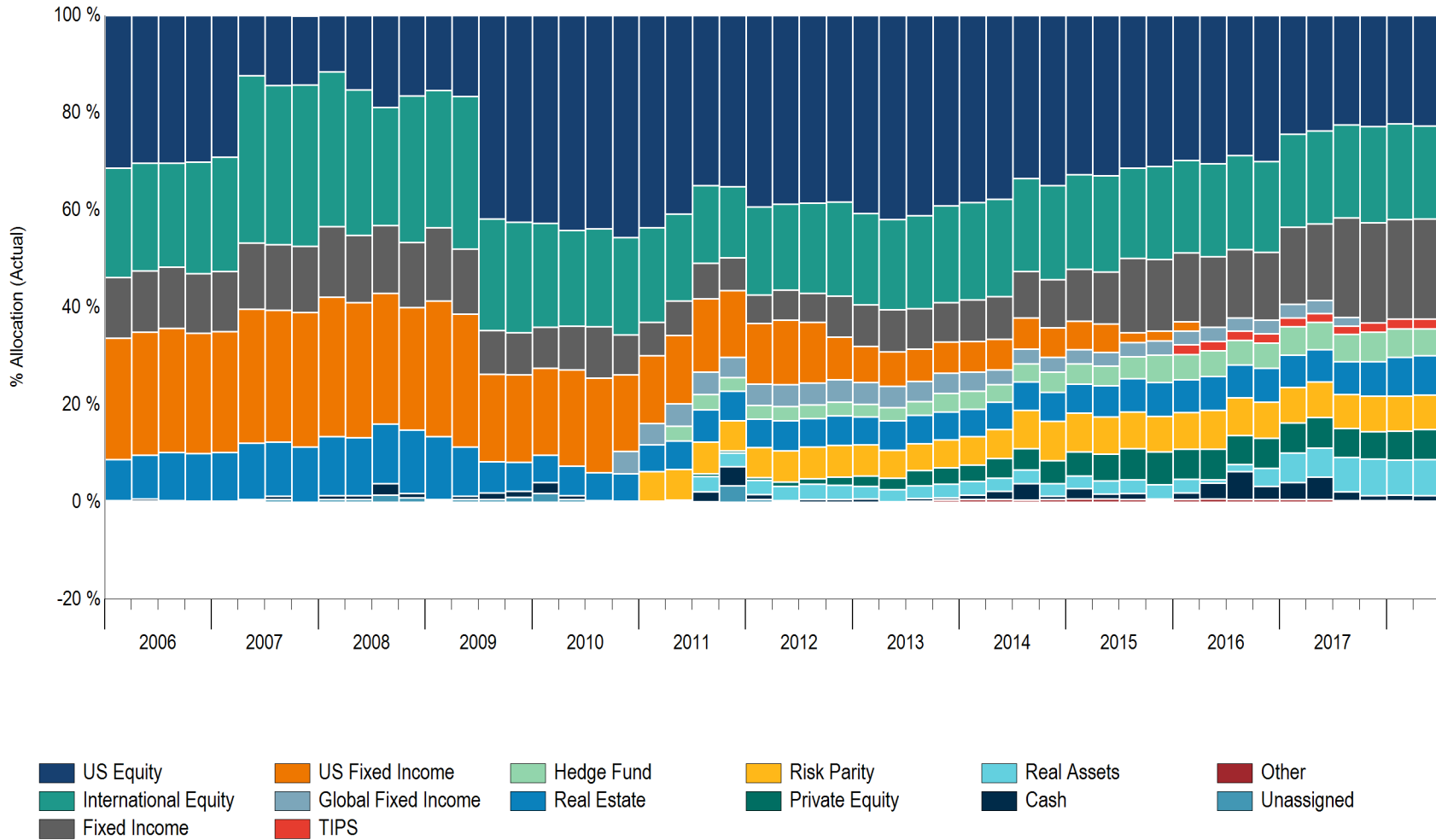
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Cash	0.8%	0.3%	1.3	1.2	0.3%
91 Day T-Bills	0.4%	0.2%	0.0	--	0.0%
General Account	1.4%	0.6%	1.7	1.8	0.5%
91 Day T-Bills	0.4%	0.2%	0.0	--	0.0%
Treasury & LAIF	1.3%	0.8%	1.1	1.2	0.8%
91 Day T-Bills	0.4%	0.2%	0.0	--	0.0%

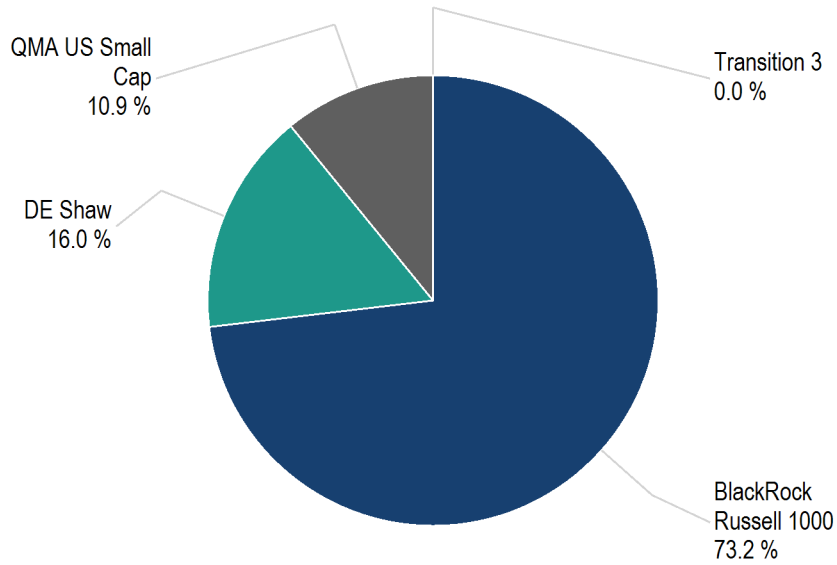


	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Return (Rank)								
5th Percentile	1.8	2.5	10.5	12.4	8.1	9.3	8.9	7.5
25th Percentile	1.1	1.5	8.8	10.8	7.2	8.3	7.8	6.7
Median	0.6	0.6	8.0	10.4	6.7	7.5	7.1	6.1
75th Percentile	0.2	0.1	7.3	9.8	6.2	7.0	6.5	5.6
95th Percentile	-0.4	-0.2	6.5	8.6	5.8	6.2	5.7	4.9
# of Portfolios	52	51	51	51	51	51	50	45
● Total Fund	0.6 (50)	0.1 (75)	6.7 (92)	9.6 (83)	6.5 (57)	8.0 (41)	7.5 (35)	6.1 (48)
▲ Policy Index	0.8 (43)	0.1 (74)	7.8 (63)	10.1 (67)	7.0 (34)	8.2 (30)	7.9 (20)	6.8 (18)

Total Fund
Asset Allocation History

Period Ending: June 30, 2018





	Actual \$	Actual %	Manager Contribution to Excess Return %
BlackRock Russell 1000	\$718,797,337	73.2%	0.0%
DE Shaw	\$156,868,228	16.0%	0.1%
QMA US Small Cap	\$106,797,477	10.9%	-0.1%
Transition Account	\$99	0.0%	0.0%
Actual vs. Policy Weight Difference			0.2%
Total	\$982,463,141	100.0%	0.1%

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	11.0%	10.2%	1.0	-0.4	0.7%
Blended US Equity Index	11.3%	10.4%	1.0	--	0.0%
Russell 3000	11.6%	10.3%	1.1	0.6	0.5%

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Large Cap Equity	12.2%	10.1%	1.1	0.5	1.1%
Russell 1000	11.6%	10.2%	1.1	--	0.0%
DE Shaw	13.6%	10.2%	1.3	0.9	2.2%
Russell 1000	11.6%	10.2%	1.1	--	0.0%
Small Cap Equity	8.6%	13.7%	0.6	-0.9	2.7%
Russell 2000	11.0%	14.1%	0.7	--	0.0%

Statistics Summary

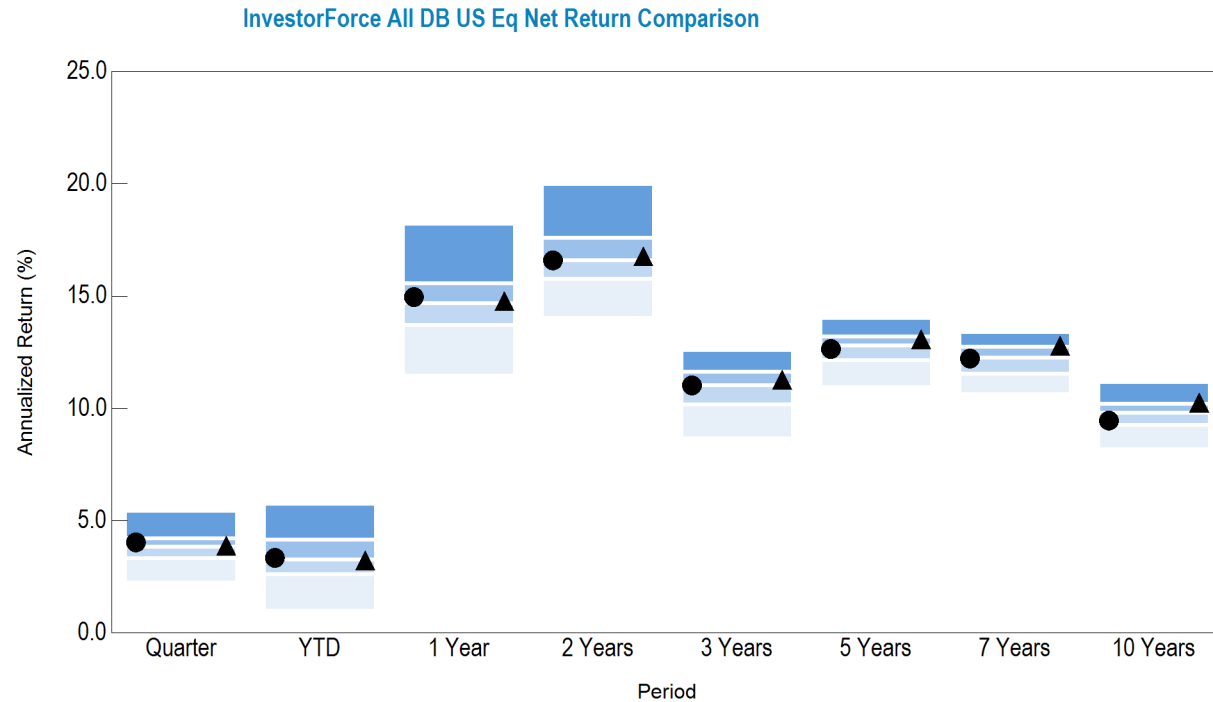
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
US Equity	12.6%	9.9%	1.2	-0.6	0.8%
Blended US Equity Index	13.1%	10.1%	1.2	--	0.0%
Russell 3000	13.3%	10.0%	1.3	0.3	0.8%

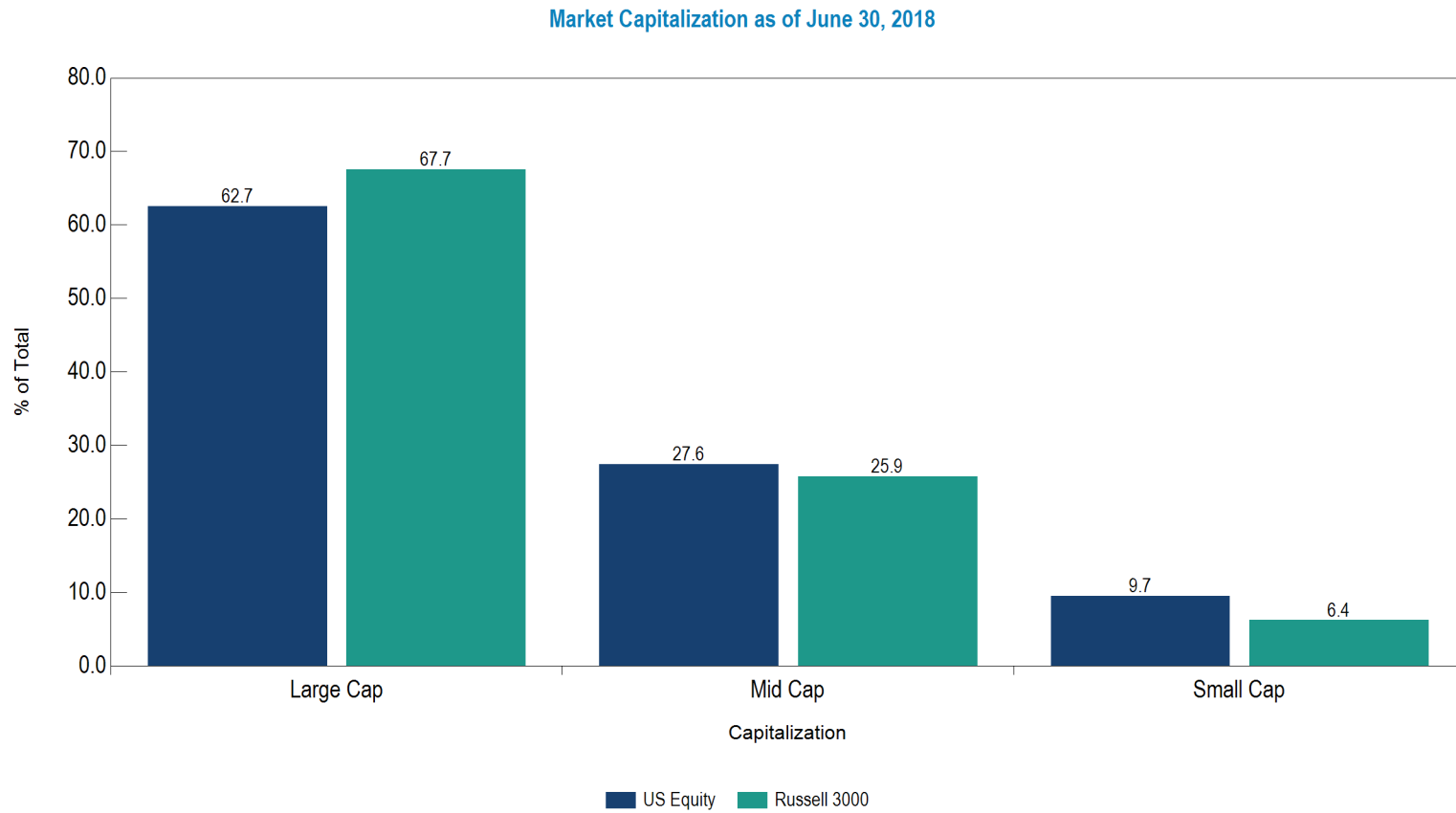
Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Large Cap Equity	13.5%	9.8%	1.3	0.2	1.0%
Russell 1000	13.4%	9.8%	1.3	--	0.0%
DE Shaw	14.7%	10.0%	1.4	0.6	2.2%
Russell 1000	13.4%	9.8%	1.3	--	0.0%
Small Cap Equity	10.4%	13.4%	0.7	-0.8	2.6%
Russell 2000	12.5%	13.9%	0.9	--	0.0%



	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Return (Rank)								
5th Percentile	5.4	5.7	18.2	20.0	12.6	14.0	13.4	11.2
25th Percentile	4.2	4.2	15.6	17.6	11.6	13.2	12.8	10.2
Median	3.9	3.3	14.7	16.6	11.0	12.8	12.3	9.8
75th Percentile	3.3	2.6	13.7	15.8	10.2	12.2	11.5	9.3
95th Percentile	2.3	1.0	11.5	14.1	8.7	11.0	10.6	8.2
# of Portfolios	593	591	585	572	565	516	425	341
● US Equity	4.0 (35)	3.3 (46)	15.0 (40)	16.6 (52)	11.0 (51)	12.6 (58)	12.2 (53)	9.5 (69)
▲ Blended US Equity Index	3.9 (47)	3.2 (53)	14.8 (47)	16.8 (44)	11.3 (42)	13.1 (37)	12.8 (25)	10.3 (25)



See appendix for the market capitalization breakpoints.

Characteristics

	Portfolio	Russell 3000
Number of Holdings	2,629	3,008
Weighted Avg. Market Cap. (\$B)	153.4	164.7
Median Market Cap. (\$B)	3.0	1.8
Price To Earnings	31.8	22.8
Price To Book	5.7	4.6
Price To Sales	4.1	4.0
Return on Equity (%)	20.9	19.4
Yield (%)	1.7	1.8
Beta (holdings; domestic)	1.1	1.0

Top Holdings

APPLE	3.6%
AMAZON.COM	2.5%
MICROSOFT	2.2%
FACEBOOK CLASS A	1.3%
ALPHABET 'C'	1.3%
ALPHABET A	1.2%
JP MORGAN CHASE & CO.	1.0%
EXXON MOBIL	1.0%
BERKSHIRE HATHAWAY 'B'	1.0%
MERCK & COMPANY	0.9%

Best Performers

	Return %
SOLID BIOSCIENCES (SLDB)	375.1%
INTELSAT (I)	343.1%
CALIFORNIA RESOURCES (CRC)	165.0%
TRANSENTERIX (TRXC)	156.5%
PENN VA. (PVAC)	142.3%
REGENXBIO (RGNX)	140.4%
MADRIGAL PHARMACEUTICALS (MDGL)	139.5%
TRAVELZOO (TZOO)	135.1%
VERASTEM (VSTM)	130.9%
ENERGY XXI GULF COAST (EGC)	130.2%

Worst Performers

	Return %
ARSANIS (ASNS)	-84.1%
FLEX PHARMA (FLKS)	-81.2%
AQUINOX PHARMACEUTICALS (AQXP)	-81.2%
MENLO THERAPEUTICS (MNLO)	-78.4%
CELLDEX THERAPEUTICS (CLDX)	-78.4%
PAIN THERAPEUTICS (PTIE)	-70.9%
WESTMORELAND COAL (WLBA)	-65.9%
JOUNCE THERAPEUTICS (JNCE)	-65.7%
VTV THERAPEUTICS CL A (VTVT)	-62.2%
PROTHENA (PRTA)	-60.3%

US Equity Performance Attribution vs. Russell 3000

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	14.4%	14.5%	5.4%	5.5%			
Materials	0.0%	0.0%	0.0%	0.0%	1.6%	2.3%	3.3%	3.1%			
Industrials	0.0%	0.0%	0.0%	0.0%	-1.7%	-2.1%	11.5%	10.9%			
Consumer Discretionary	-0.1%	-0.1%	0.0%	0.0%	7.6%	8.2%	12.0%	12.6%			
Consumer Staples	0.1%	0.1%	0.0%	0.0%	-0.2%	-1.5%	6.2%	6.6%			
Health Care	0.2%	0.2%	0.0%	0.0%	5.7%	4.4%	13.4%	13.6%			
Financials	0.2%	0.2%	0.1%	0.0%	-1.3%	-2.4%	14.4%	15.2%			
Information Technology	0.0%	-0.1%	0.0%	0.0%	6.7%	6.9%	24.5%	24.0%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-0.6%	-0.5%	1.5%	1.8%			
Utilities	0.0%	0.0%	0.0%	0.0%	5.2%	4.5%	2.5%	2.9%			
Real Estate	0.0%	0.0%	0.0%	0.0%	8.2%	8.1%	3.7%	3.7%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	0.9%	0.0%			
Unclassified	0.0%	0.0%	0.0%	0.0%	3.6%	--	0.7%	0.0%			
Portfolio	0.3%	=	0.4%	+	0.0%	+	0.0%	4.2%	3.9%	100.0%	100.0%

U.S. Effective Style Map



eV US Large Cap Equity Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	7.2	12.1	27.9	24.9	15.3	17.2	15.3	12.4
25th Percentile	4.2	4.8	17.9	18.6	11.9	14.0	13.2	10.8
Median	2.6	1.4	12.6	15.3	9.9	12.1	12.1	9.6
75th Percentile	1.3	-0.7	9.5	12.9	8.4	10.8	10.9	8.6
95th Percentile	-0.4	-2.9	5.6	8.8	6.1	8.3	8.6	6.8
# of Portfolios	598	598	598	590	576	546	488	435
● Large Cap Equity	3.7 (32)	3.0 (37)	15.1 (36)	17.3 (35)	12.2 (23)	13.5 (31)	12.9 (32)	9.7 (49)
▲ Russell 1000	3.6 (34)	2.9 (38)	14.5 (40)	16.3 (42)	11.6 (27)	13.4 (32)	13.1 (27)	10.2 (36)

Characteristics

	Portfolio	Russell 1000
Number of Holdings	2,540	987
Weighted Avg. Market Cap. (\$B)	171.6	178.4
Median Market Cap. (\$B)	3.6	10.1
Price To Earnings	32.7	23.7
Price To Book	5.9	4.8
Price To Sales	4.2	4.3
Return on Equity (%)	21.6	20.5
Yield (%)	1.8	1.9
Beta (holdings; domestic)	1.0	1.0

Top Holdings

APPLE	4.1%
AMAZON.COM	2.8%
MICROSOFT	2.4%
FACEBOOK CLASS A	1.5%
ALPHABET 'C'	1.4%
ALPHABET A	1.3%
JP MORGAN CHASE & CO.	1.1%
EXXON MOBIL	1.1%
BERKSHIRE HATHAWAY 'B'	1.1%
MERCK & COMPANY	1.0%

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REGENXBIO (RGNX)	140.4%
MADRIGAL PHARMACEUTICALS (MDGL)	139.5%
TRAVELZOO (TZOO)	135.1%
VERASTEM (VSTM)	130.9%
ENERGY XXI GULF COAST (EGC)	130.2%

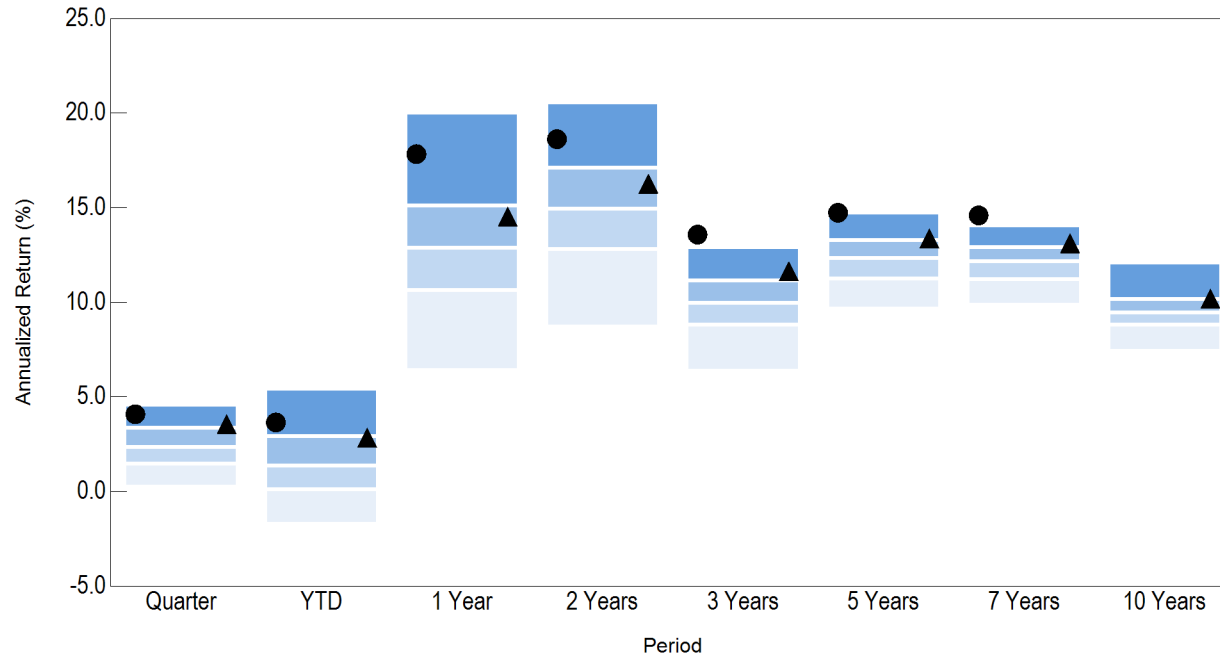
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MENLO THERAPEUTICS (MNLO)	-78.4%
CELLEX THERAPEUTICS (CLDX)	-78.4%
PAIN THERAPEUTICS (PTIE)	-70.9%
WESTMORELAND COAL (WLBA)	-65.9%
JOUNCE THERAPEUTICS (JNCE)	-65.7%
VTV THERAPEUTICS CL A (VTVT)	-62.2%
PROTHENA (PRTA)	-60.3%

Large Cap Equity Performance Attribution vs. Russell 1000

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.0%	0.0%	0.0%	14.8%	14.1%	5.6%	5.6%			
Materials	0.0%	0.0%	0.0%	0.0%	1.7%	2.2%	3.1%	3.0%			
Industrials	0.0%	0.0%	0.0%	0.0%	-2.5%	-2.7%	10.9%	10.6%			
Consumer Discretionary	-0.1%	-0.1%	0.0%	0.0%	7.3%	8.1%	12.0%	12.7%			
Consumer Staples	0.1%	0.1%	0.0%	0.0%	-1.2%	-1.9%	6.8%	7.0%			
Health Care	0.1%	0.1%	0.0%	0.0%	4.4%	3.9%	13.1%	13.4%			
Financials	0.2%	0.1%	0.1%	0.0%	-2.2%	-3.1%	14.0%	15.0%			
Information Technology	0.0%	0.0%	0.0%	0.0%	6.8%	6.8%	25.3%	24.5%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-1.6%	-0.8%	1.6%	1.9%			
Utilities	0.0%	0.0%	0.0%	0.0%	4.0%	4.2%	2.5%	2.8%			
Real Estate	0.0%	0.0%	0.0%	0.0%	6.8%	7.3%	3.3%	3.5%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	1.0%	0.0%			
Unclassified	0.0%	0.0%	0.0%	0.0%	3.6%	--	0.8%	0.0%			
Portfolio	0.1%	=	0.1%	+	0.0%	+	0.0%	3.7%	3.6%	100.0%	100.0%

eV US Large Cap Core Equity Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	4.6	5.4	20.0	20.5	12.9	14.7	14.1	12.1
25th Percentile	3.4	3.0	15.1	17.1	11.2	13.3	12.9	10.2
Median	2.4	1.4	12.9	15.0	10.0	12.3	12.2	9.5
75th Percentile	1.5	0.1	10.7	12.8	8.8	11.3	11.3	8.8
95th Percentile	0.3	-1.7	6.4	8.7	6.4	9.7	9.9	7.5
# of Portfolios	187	187	187	184	178	166	148	125
● DE Shaw	4.1 (10)	3.7 (16)	17.8 (10)	18.6 (10)	13.6 (3)	14.7 (5)	14.6 (3)	-- (--)
▲ Russell 1000	3.6 (20)	2.9 (27)	14.5 (32)	16.3 (35)	11.6 (18)	13.4 (25)	13.1 (20)	10.2 (25)

Characteristics

	Portfolio	Russell 1000
Number of Holdings	986	987
Weighted Avg. Market Cap. (\$B)	178.4	178.4
Median Market Cap. (\$B)	10.1	10.1
Price To Earnings	33.1	23.7
Price To Book	5.9	4.8
Price To Sales	4.3	4.3
Return on Equity (%)	21.3	20.5
Yield (%)	1.9	1.9
Beta (holdings; domestic)	1.0	1.0

Top Holdings

APPLE	3.5%
MICROSOFT	2.9%
AMAZON.COM	2.7%
FACEBOOK CLASS A	1.8%
BERKSHIRE HATHAWAY 'B'	1.4%
JP MORGAN CHASE & CO.	1.4%
EXXON MOBIL	1.4%
ALPHABET 'C'	1.3%
ALPHABET A	1.3%
JOHNSON & JOHNSON	1.3%

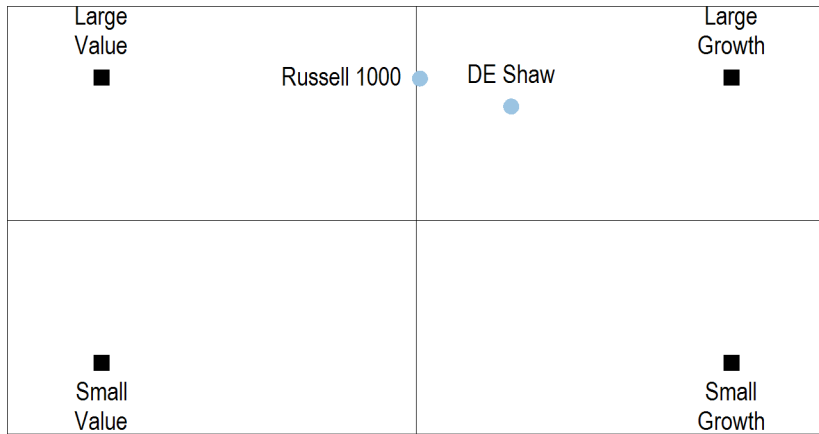
Best Performers

	Return %
SAREPTA THERAPEUTICS (SRPT)	78.4%
WAYFAIR CL.A (W)	75.9%
CHESAPEAKE ENERGY (CHK)	73.5%
ENDO INTERNATIONAL (ENDP)	58.8%
PANDORA MEDIA (P)	56.7%
WHITING PETROLEUM (WLL)	55.8%
TWITTER (TWTR)	50.5%
ADVANCED MICRO DEVC. (AMD)	49.2%
OPKO HEALTH (OPK)	48.3%
EXACT SCIS. (EXAS)	48.3%

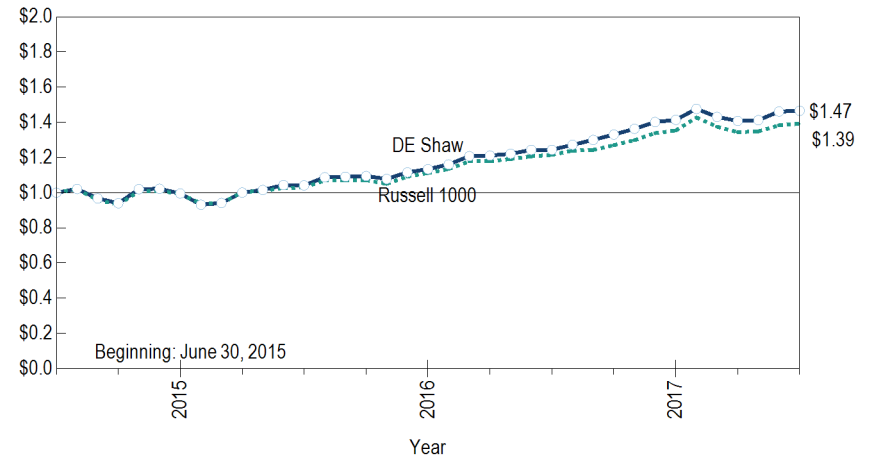
Worst Performers

	Return %
NEKTAR THERAPEUTICS (NKTR)	-54.0%
ACADIA PHARMACEUTICALS (ACAD)	-32.0%
FEDERATED INVRS.'B' (FII)	-29.4%
ALKERMES (ALKS)	-29.0%
COMMSCOPE HOLDING CO. (COMM)	-26.9%
AMERICAN AIRLINES GROUP (AAL)	-26.8%
PROASSURANCE (PRA)	-26.4%
ARCONIC (ARNC)	-25.9%
COPA HOLDINGS S A (CPA)	-25.9%
FIRST SOLAR (FSLR)	-25.8%

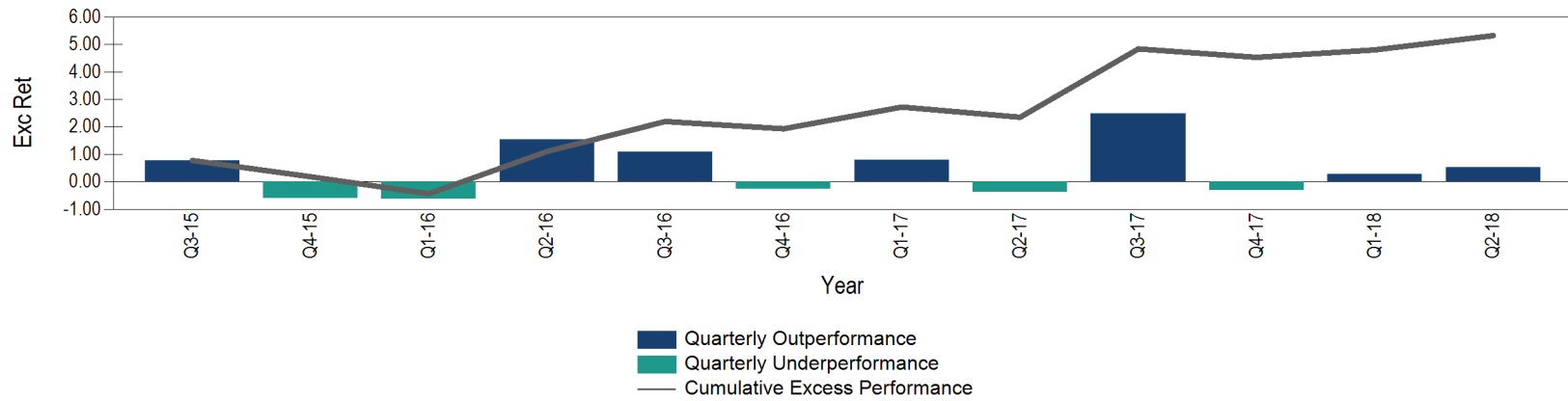
U.S. Effective Style Map



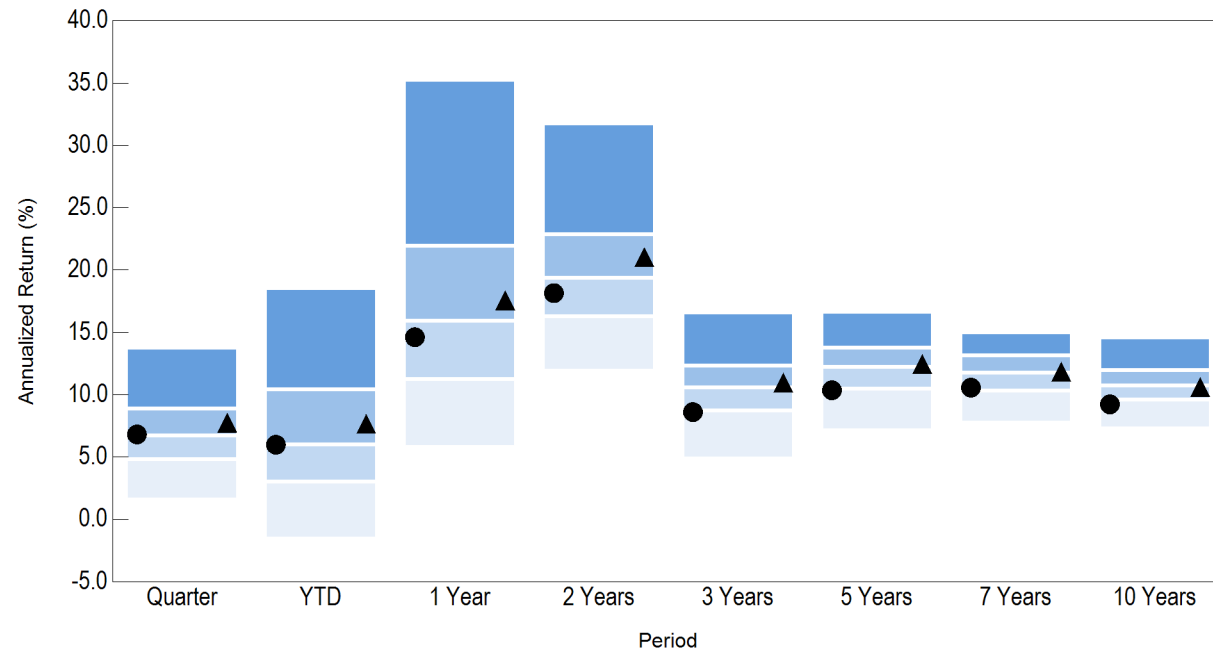
Growth of a Dollar



Quarterly and Cumulative Excess Performance



eV US Small Cap Equity Net Return Comparison



	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Return (Rank)								
5th Percentile	13.8	18.5	35.3	31.7	16.6	16.7	15.0	14.6
25th Percentile	8.9	10.5	22.0	22.9	12.4	13.8	13.2	12.0
Median	6.7	6.1	16.0	19.4	10.6	12.3	11.8	10.8
75th Percentile	4.9	3.0	11.3	16.3	8.8	10.5	10.4	9.6
95th Percentile	1.6	-1.5	5.8	12.0	4.9	7.2	7.8	7.3
# of Portfolios	410	410	408	402	391	368	342	304
● Small Cap Equity	6.8 (50)	6.0 (51)	14.6 (59)	18.2 (59)	8.6 (78)	10.4 (78)	10.6 (73)	9.2 (81)
▲ Russell 2000	7.8 (39)	7.7 (40)	17.6 (43)	21.0 (37)	11.0 (45)	12.5 (47)	11.8 (50)	10.6 (53)

Characteristics

	Portfolio	Russell 2000
Number of Holdings	377	2,021
Weighted Avg. Market Cap. (\$B)	2.3	2.2
Median Market Cap. (\$B)	1.3	0.9
Price To Earnings	23.9	17.4
Price To Book	3.6	3.0
Price To Sales	2.6	3.0
Return on Equity (%)	15.1	8.6
Yield (%)	1.2	1.1
Beta (holdings; domestic)	1.2	1.2

Top Holdings

FIBROGEN	1.0%
HAEMONETICS	1.0%
TEXAS ROADHOUSE	0.9%
INOGEN	0.9%
GEO GROUP	0.8%
INSPERITY	0.8%
GREEN DOT CLASS A	0.8%
ENANTA PHARMACEUTICALS	0.8%
BLUCORA	0.8%
COTIVITI HOLDINGS	0.8%

Best Performers

	Return %
TRAVELZOO (TZOO)	135.1%
CLEAN ENERGY FUELS (CLNE)	123.6%
J JILL (JILL)	111.3%
STAAR SURGICAL (STAA)	109.5%
EGAIN (EGAN)	89.9%
MEDIFAST (MED)	71.9%
ENOVA INTERNATIONAL (ENVA)	65.8%
TURNING POINT BRANDS (TPB)	64.3%
DRIVE SHACK (DS)	61.5%
W&T OFFSHORE (WTI)	61.4%

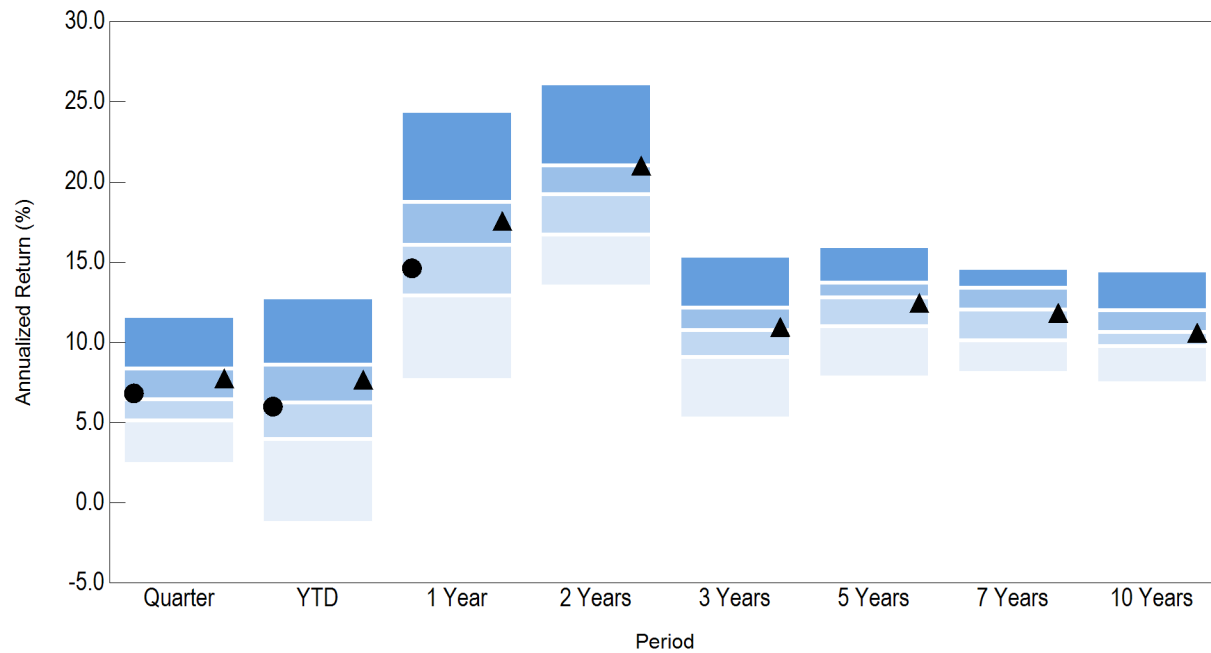
Worst Performers

	Return %
CASA SYSTEMS (CASA)	-44.3%
AVON PRODUCTS (AVP)	-43.0%
CLEARWATER PAPER (CLW)	-40.9%
BIGLARI HOLDINGS 'B' (BH)	-36.6%
SMART GLOBAL HOLDINGS (SGH)	-36.1%
TITAN MACHINERY (TITN)	-34.0%
HFF CLASS A (HF)	-30.9%
CONCERT PHARMACEUTICALS (CNCE)	-26.5%
SANGAMO THERAPEUTICS (SGMO)	-25.3%
FTS INTERNATIONAL (FTSI)	-22.6%

Small Cap Equity Performance Attribution vs. Russell 2000

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.4%	-0.4%	0.0%	0.0%	10.4%	21.4%	3.5%	3.4%			
Materials	-0.1%	-0.1%	0.0%	0.0%	1.3%	3.6%	5.0%	4.4%			
Industrials	-0.2%	-0.2%	0.0%	0.0%	2.1%	3.1%	15.9%	15.3%			
Consumer Discretionary	0.1%	0.1%	0.0%	0.0%	10.5%	9.5%	12.7%	12.2%			
Consumer Staples	0.2%	0.3%	0.0%	-0.1%	26.2%	12.1%	1.8%	2.4%			
Health Care	0.6%	0.7%	0.0%	0.0%	13.5%	9.3%	15.7%	16.6%			
Financials	0.1%	0.0%	0.0%	0.0%	4.3%	4.1%	17.1%	18.1%			
Information Technology	-0.4%	-0.3%	0.0%	0.0%	5.5%	7.5%	18.3%	17.4%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	11.9%	11.1%	0.9%	0.6%			
Utilities	0.1%	0.2%	0.0%	0.0%	13.4%	8.4%	2.5%	3.2%			
Real Estate	0.0%	0.0%	0.0%	0.0%	13.8%	13.2%	6.2%	6.4%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	0.4%	0.0%			
Unclassified	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	0.1%	=	0.4%	+	-0.1%	+	-0.2%	7.7%	7.6%	100.0%	100.0%

eV US Small Cap Core Equity Net Return Comparison



	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	11.6	12.8	24.4	26.1	15.4	16.0	14.6	14.5
25th Percentile	8.4	8.6	18.8	21.1	12.2	13.8	13.4	12.0
Median	6.5	6.3	16.1	19.3	10.8	12.8	12.1	10.7
75th Percentile	5.2	4.0	12.9	16.8	9.1	11.0	10.2	9.8
95th Percentile	2.4	-1.2	7.7	13.5	5.3	7.8	8.1	7.5
# of Portfolios	107	107	105	103	103	98	87	72
● QMA US Small Cap	6.8 (46)	6.0 (52)	14.6 (65)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)
▲ Russell 2000	7.8 (35)	7.7 (38)	17.6 (36)	21.0 (26)	11.0 (47)	12.5 (57)	11.8 (55)	10.6 (52)

Characteristics

	Portfolio	Russell 2000
Number of Holdings	377	2,021
Weighted Avg. Market Cap. (\$B)	2.3	2.2
Median Market Cap. (\$B)	1.3	0.9
Price To Earnings	23.9	17.4
Price To Book	3.6	3.0
Price To Sales	2.6	3.0
Return on Equity (%)	15.1	8.6
Yield (%)	1.2	1.1
Beta (holdings; domestic)	1.2	1.2

Top Holdings

FIBROGEN	1.0%
HAEMONETICS	1.0%
TEXAS ROADHOUSE	0.9%
INOGEN	0.9%
GEO GROUP	0.8%
INSPERITY	0.8%
GREEN DOT CLASS A	0.8%
ENANTA PHARMACEUTICALS	0.8%
BLUCORA	0.8%
COTIVITI HOLDINGS	0.8%

Best Performers

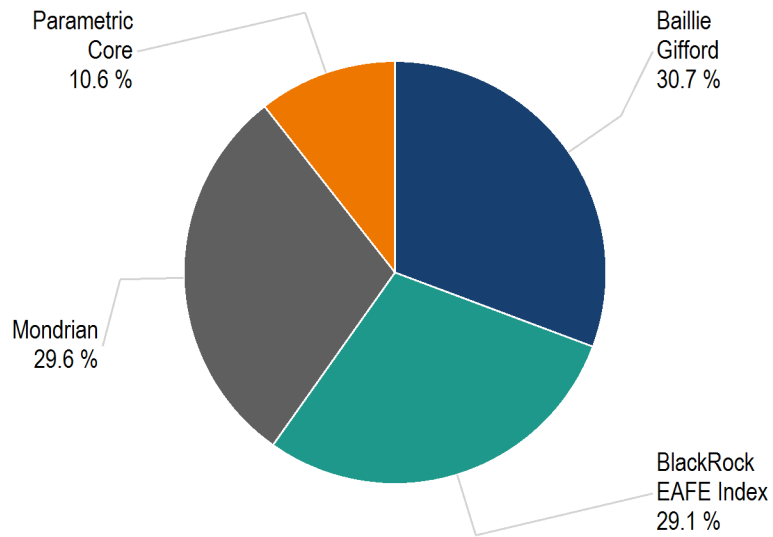
	Return %
TRAVELZOO (TZOO)	135.1%
CLEAN ENERGY FUELS (CLNE)	123.6%
J JILL (JILL)	111.3%
STAAR SURGICAL (STAA)	109.5%
EGAIN (EGAN)	89.9%
MEDIFAST (MED)	71.9%
ENOVA INTERNATIONAL (ENVA)	65.8%
TURNING POINT BRANDS (TPB)	64.3%
DRIVE SHACK (DS)	61.5%
W&T OFFSHORE (WTI)	61.4%

Worst Performers

	Return %
CASA SYSTEMS (CASA)	-44.3%
AVON PRODUCTS (AVP)	-43.0%
CLEARWATER PAPER (CLW)	-40.9%
BIGLARI HOLDINGS 'B' (BH)	-36.6%
SMART GLOBAL HOLDINGS (SGH)	-36.1%
TITAN MACHINERY (TITN)	-34.0%
HFF CLASS A (HF)	-30.9%
CONCERT PHARMACEUTICALS (CNCE)	-26.5%
SANGAMO THERAPEUTICS (SGMO)	-25.3%
FTS INTERNATIONAL (FTSI)	-22.6%

QMA US Small Cap Performance Attribution vs. Russell 2000

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.4%	-0.4%	0.0%	0.0%	10.4%	21.4%	3.5%	3.4%			
Materials	-0.1%	-0.1%	0.0%	0.0%	1.3%	3.6%	5.0%	4.4%			
Industrials	-0.2%	-0.2%	0.0%	0.0%	2.1%	3.1%	15.9%	15.3%			
Consumer Discretionary	0.1%	0.1%	0.0%	0.0%	10.5%	9.5%	12.7%	12.2%			
Consumer Staples	0.2%	0.3%	0.0%	-0.1%	26.2%	12.1%	1.8%	2.4%			
Health Care	0.6%	0.7%	0.0%	0.0%	13.5%	9.3%	15.7%	16.6%			
Financials	0.1%	0.0%	0.0%	0.0%	4.3%	4.1%	17.1%	18.1%			
Information Technology	-0.4%	-0.3%	0.0%	0.0%	5.5%	7.5%	18.3%	17.4%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	11.9%	11.1%	0.9%	0.6%			
Utilities	0.1%	0.2%	0.0%	0.0%	13.4%	8.4%	2.5%	3.2%			
Real Estate	0.0%	0.0%	0.0%	0.0%	13.8%	13.2%	6.2%	6.4%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	0.4%	0.0%			
Unclassified	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	0.1%	=	0.4%	+	-0.1%	+	-0.2%	7.7%	7.6%	100.0%	100.0%



	Actual \$	Actual %	Manager Contribution to Excess Return %
Baillie Gifford	\$255,036,354	30.7%	0.8%
BlackRock EAFE Index	\$241,931,578	29.1%	0.1%
Mondrian	\$245,977,329	29.6%	0.0%
Parametric Core	\$88,129,672	10.6%	-0.2%
Actual vs. Policy Weight Difference			-0.4%
Total	\$831,074,932	100.0%	0.3%

Statistics Summary

3 Years

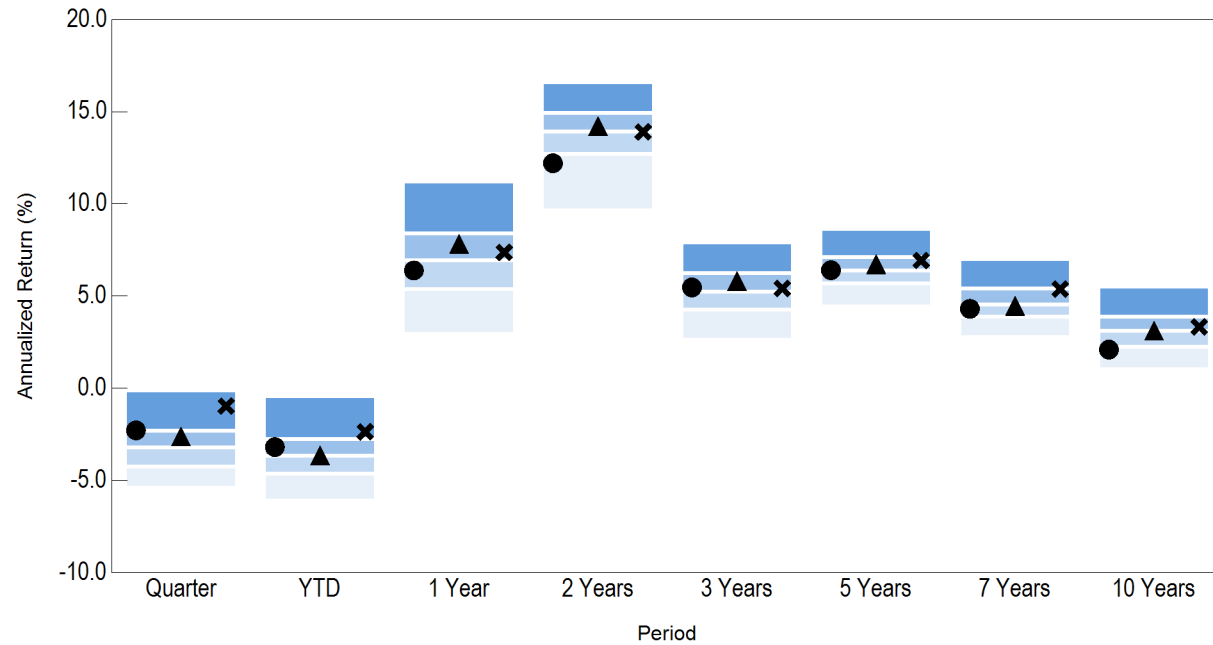
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	5.5%	12.0%	0.4	-0.2	1.7%
MSCI ACWI ex US IMI	5.8%	12.1%	0.4	--	0.0%
Developed Markets	5.7%	12.0%	0.4	0.1	2.2%
MSCI ACWI ex USA Gross	5.6%	12.2%	0.4	--	0.0%
Baillie Gifford	7.8%	13.3%	0.5	0.5	4.3%
MSCI ACWI ex US	5.6%	12.2%	0.4	--	0.0%
BlackRock EAFE Index	5.3%	12.1%	0.4	1.8	0.2%
MSCI EAFE	4.9%	12.1%	0.3	--	0.0%
Mondrian	3.8%	11.9%	0.3	-0.1	4.8%
MSCI ACWI ex USA Value Gross	4.1%	13.1%	0.3	--	0.0%
Emerging Markets	3.7%	14.7%	0.2	-0.6	3.9%
MSCI Emerging Markets Gross	6.0%	16.0%	0.3	--	0.0%

Statistics Summary

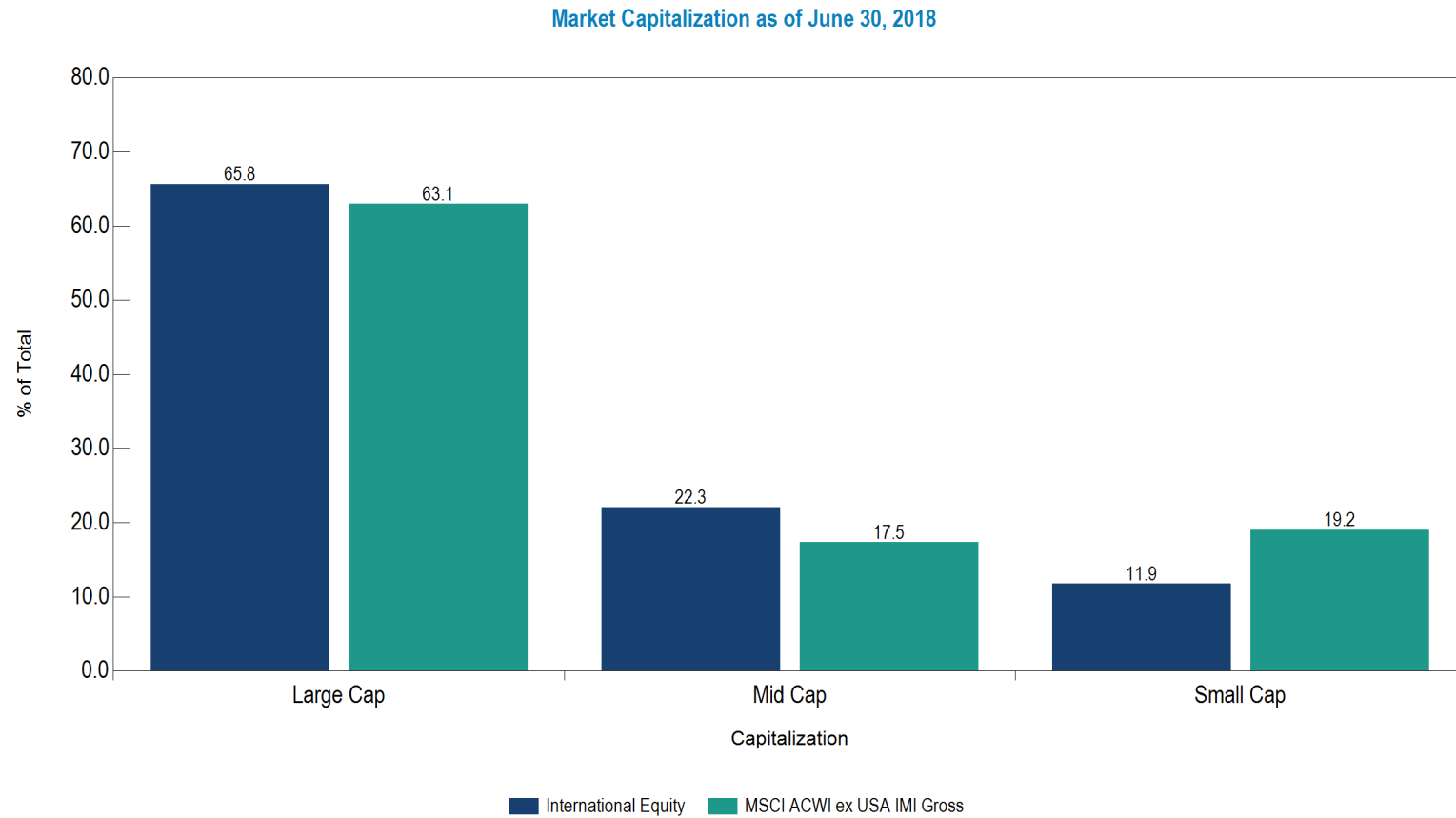
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
International Equity	6.4%	11.4%	0.5	-0.2	1.6%
MSCI ACWI ex US IMI	6.7%	11.5%	0.5	--	0.0%
Developed Markets	6.8%	11.4%	0.6	0.2	2.0%
MSCI ACWI ex USA Gross	6.5%	11.7%	0.5	--	0.0%
Baillie Gifford	8.6%	12.4%	0.7	0.4	4.0%
MSCI ACWI ex US	6.9%	11.8%	0.6	--	0.0%
Mondrian	5.2%	11.4%	0.4	0.0	4.5%
MSCI ACWI ex USA Value Gross	5.3%	12.5%	0.4	--	0.0%
Emerging Markets	3.0%	13.6%	0.2	-0.6	3.9%
MSCI Emerging Markets Gross	5.4%	14.9%	0.3	--	0.0%

InvestorForce All DB ex-US Eq Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	-0.1	-0.4	11.2	16.6	7.9	8.6	7.0	5.5
25th Percentile	-2.3	-2.7	8.4	14.9	6.3	7.1	5.4	3.9
Median	-3.2	-3.6	7.0	13.9	5.3	6.4	4.6	3.1
75th Percentile	-4.2	-4.6	5.4	12.7	4.3	5.7	3.9	2.3
95th Percentile	-5.4	-6.1	3.0	9.7	2.7	4.5	2.8	1.0
# of Portfolios	411	407	405	394	387	347	290	227
● International Equity	-2.3 (25)	-3.2 (37)	6.4 (61)	12.2 (83)	5.5 (43)	6.4 (50)	4.3 (61)	2.1 (81)
▲ MSCI ACWI ex US IMI	-2.6 (33)	-3.6 (51)	7.8 (34)	14.2 (45)	5.8 (35)	6.7 (38)	4.5 (53)	3.1 (51)
✕ MSCI EAFE Gross	-1.0 (9)	-2.4 (21)	7.4 (40)	13.9 (51)	5.4 (45)	6.9 (31)	5.4 (26)	3.3 (43)



See appendix for the market capitalization breakpoints.

Characteristics

	Portfolio	MSCI ACWI ex USA IMI Gross
Number of Holdings	2,197	6,472
Weighted Avg. Market Cap. (\$B)	48.2	54.5
Median Market Cap. (\$B)	6.5	1.6
Price To Earnings	23.4	19.0
Price To Book	3.7	2.6
Price To Sales	3.1	2.4
Return on Equity (%)	17.8	15.3
Yield (%)	2.9	2.9
Beta (holdings; global)	1.0	1.0

Top Holdings

UNITED OVERSEAS BANK	1.3%
BP	1.1%
NASPERS	1.0%
SANOFI	1.0%
TESCO	0.9%
ALIBABA GROUP HLDG.SPN. ADR 1:1	0.9%
ENEL	0.9%
HARGREAVES LANSDOWN	0.8%
GLAXOSMITHKLINE	0.8%
SHISEIDO	0.8%

Best Performers

	Return %
ALTICE EUROPE (H:ATC)	160.7%
CAPITA (UKIR:CPI)	71.2%
INDAH KIAT PULP & PAPER (ID:IKP)	62.5%
UNI-PRESIDENT CHINA HDG. (K:UNIP)	51.5%
GS ENGR. & CON. (KO:LCV)	48.6%
SJM HOLDINGS (K:SJMH)	45.2%
SES FDR (LX:SES)	43.3%
GZH.BYSH.PHMHD.CO. 'H' (K:GUP)	43.0%
BUKIT ASAM (ID:TBB)	42.3%
TEVA PHARM.INDS.ADR 1:1 (TEVA)	42.3%

Worst Performers

	Return %
FOLLI FOLLIE (G:DUTY)	-71.2%
MY EG SERVICES (L:MYEG)	-68.1%
STEINHOFF INTL.HOLDING (R:SNHJ)	-66.2%
UNITED COMPANY RUSAL (K:RUSA)	-56.8%
CTI.ELETR BRAS- ELETROBRAS SR.B PN (BR:EL6)	-51.4%
HOUSING DEV.&INFR. (IN:IHD)	-48.8%
VIA VAREJO UNITS (BR:VVU)	-46.9%
PETKIM PETROKIMYA HLDG. (TK:PET)	-45.8%
OSRAM LICHT (D:OSR)	-44.5%
ULTRAPAR PARTICIPOES ON (BR:U3G)	-44.0%

International Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.1%	0.0%	-0.1%	0.0%	7.2%	7.7%	5.5%	6.2%			
Materials	0.1%	0.1%	-0.1%	0.1%	0.0%	-0.8%	5.9%	8.4%			
Industrials	-0.1%	-0.1%	0.0%	0.0%	-3.7%	-2.9%	13.3%	12.9%			
Consumer Discretionary	-0.2%	0.0%	0.0%	-0.2%	-3.6%	-3.0%	14.6%	11.9%			
Consumer Staples	0.0%	0.1%	0.0%	-0.1%	0.3%	-0.4%	10.5%	9.0%			
Health Care	-0.1%	-0.1%	0.0%	0.0%	0.0%	1.2%	8.6%	7.7%			
Financials	0.5%	0.3%	0.1%	0.1%	-5.6%	-6.9%	18.6%	21.4%			
Information Technology	0.4%	0.4%	0.0%	0.0%	0.9%	-2.6%	11.1%	11.8%			
Telecommunication Services	-0.1%	0.0%	0.0%	-0.1%	-6.2%	-5.6%	4.7%	3.5%			
Utilities	-0.1%	0.0%	0.0%	-0.1%	-2.7%	-1.4%	4.0%	3.0%			
Real Estate	0.1%	0.0%	0.0%	0.1%	-3.6%	-2.4%	2.2%	4.1%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	1.0%	0.0%			
Unclassified	0.0%	0.0%	0.0%	0.0%	-5.9%	--	0.0%	0.0%			
Portfolio	0.4%	=	0.5%	+	0.0%	+	-0.2%	-2.0%	-2.4%	100.0%	100.0%

Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	-10.4%	-8.4%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Belgium	-6.0%	-5.9%	0.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Czech Republic*	-4.1%	-3.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Denmark	-4.2%	-4.5%	1.7%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Finland	2.2%	1.3%	0.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
France	-1.7%	0.1%	5.0%	6.8%	-0.1%	-0.1%	0.1%	0.0%	-0.1%
Germany	-3.6%	-3.7%	7.4%	6.3%	0.0%	0.0%	-0.1%	0.0%	-0.1%
Greece*	-5.2%	-3.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Hungary*	-12.8%	-14.4%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Ireland	0.0%	3.1%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Italy	-2.9%	-6.3%	2.1%	1.9%	0.1%	0.0%	0.0%	0.0%	0.1%
Luxembourg	12.1%	-2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Netherlands	4.0%	-0.7%	2.7%	2.4%	0.1%	0.0%	0.0%	0.0%	0.1%
Norway	3.0%	5.9%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Poland*	-11.0%	-11.9%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Portugal	-15.4%	1.5%	0.5%	0.1%	0.0%	0.0%	0.0%	-0.1%	-0.1%
Russia*	-7.6%	-6.0%	1.2%	0.8%	-0.1%	0.0%	0.0%	0.0%	0.0%
Spain	-1.9%	-4.0%	2.7%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Sweden	-1.1%	-2.3%	3.2%	2.1%	0.0%	0.0%	-0.1%	0.0%	0.0%
Switzerland	-2.8%	-2.2%	4.8%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%
United Kingdom	5.6%	2.8%	13.5%	12.0%	0.4%	0.1%	-0.1%	0.0%	0.4%

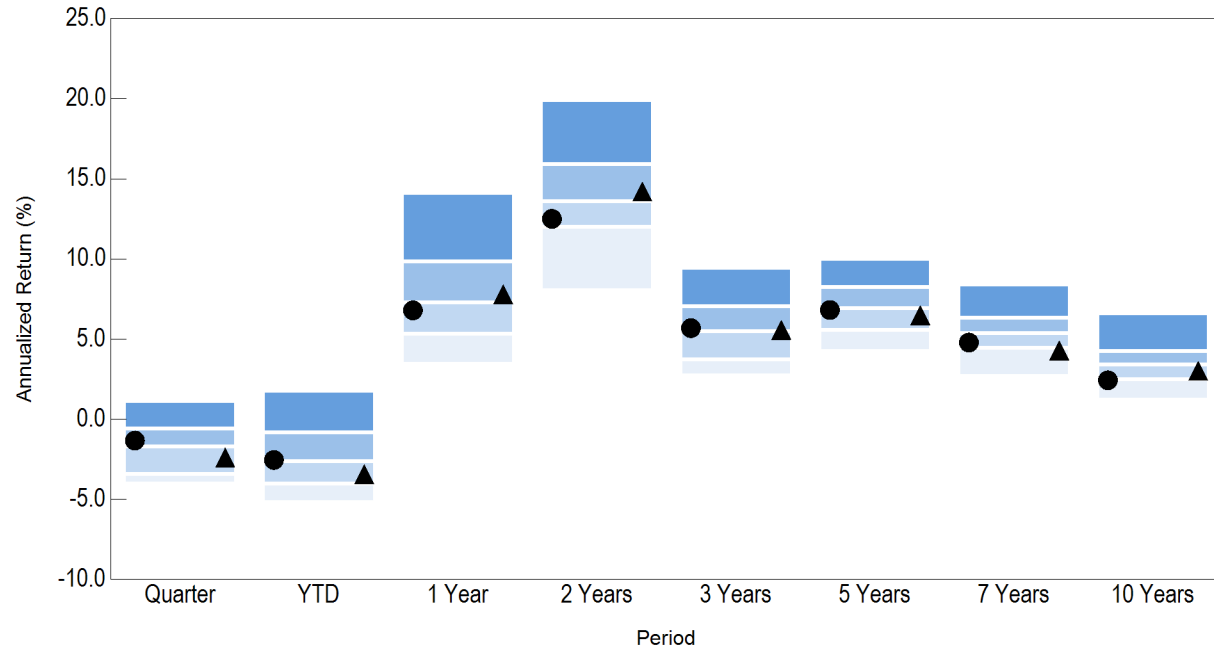
Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Returns and Weights				Attribution Effects				Total Effects	
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect		
AsiaPacific										
Australia	3.4%	4.9%	3.8%	4.5%	-0.1%	0.0%	0.0%	0.0%	-0.1%	
China*	-0.7%	-3.2%	4.2%	7.2%	0.2%	0.2%	0.0%	-0.1%	0.3%	
Hong Kong	-2.4%	-1.7%	4.0%	2.3%	0.0%	-0.1%	0.0%	0.0%	-0.1%	
India*	0.1%	-2.0%	2.9%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Indonesia*	-14.2%	-12.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
Japan	-2.0%	-3.0%	16.1%	17.6%	0.2%	0.0%	0.1%	0.0%	0.2%	
Korea*	-8.0%	-9.4%	2.7%	3.8%	0.0%	0.1%	0.1%	0.0%	0.2%	
Malaysia*	-9.1%	-10.7%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
New Zealand	5.8%	1.6%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Pakistan*	-13.6%	-14.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Philippines*	-12.6%	-11.8%	0.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
Singapore	-5.5%	-8.0%	3.0%	1.0%	0.0%	-0.1%	-0.1%	0.0%	-0.1%	
Taiwan*	-8.6%	-5.3%	2.7%	3.1%	-0.2%	0.0%	0.1%	0.0%	-0.1%	
Thailand*	-9.2%	-15.4%	0.6%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
Americas										
Brazil*	-21.3%	-26.2%	2.3%	1.8%	0.0%	-0.1%	0.0%	0.0%	0.0%	
Canada	7.4%	5.0%	0.9%	6.1%	0.1%	-0.3%	0.1%	-0.1%	-0.1%	
Chile*	-11.2%	-11.2%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
Colombia*	3.4%	5.5%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
Mexico*	-1.9%	-3.9%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
Peru*	-0.7%	-4.4%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
United States	-0.7%	3.4%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Int'l Equity Performance Attribution vs. MSCI ACWI ex USA IMI Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	-7.0%	-7.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Israel	13.8%	6.4%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Kuwait**	2.4%	-0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Qatar*	4.7%	3.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Romania**	-10.0%	-6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
South Africa*	-5.6%	-12.2%	2.3%	1.7%	0.1%	0.0%	-0.1%	0.0%	0.1%
Turkey*	-25.6%	-25.4%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	-0.1%
United Arab Emirates*	1.7%	-3.4%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Totals									
Americas	-8.2%	-2.4%	6.1%	9.2%	-0.5%	0.0%	0.1%	0.2%	-0.2%
Europe	-0.1%	-1.0%	46.8%	44.2%	0.4%	0.1%	-0.2%	0.0%	0.3%
Asia/Pacific	-2.9%	-3.4%	42.4%	44.0%	0.1%	0.0%	0.1%	0.0%	0.3%
Other	-6.2%	-9.2%	3.8%	2.7%	0.1%	0.0%	-0.1%	0.0%	0.0%
Cash	0.5%	--	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-2.0%	-2.4%	100.0%	100.0%	0.2%	0.1%	-0.1%	0.2%	0.4%
Totals									
Developed	-0.4%	-0.6%	73.8%	75.0%	0.2%	0.0%	0.0%	0.0%	0.2%
Emerging*	-7.0%	-7.8%	25.0%	25.0%	0.3%	0.0%	-0.1%	0.0%	0.2%
Frontier**	0.6%	--	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.5%	--	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

InvestorForce All DB Dev Mkt ex-US Eq Net Return Comparison



	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
Return (Rank)								
5th Percentile	1.1	1.8	14.1	19.9	9.4	10.0	8.4	6.6
25th Percentile	-0.6	-0.8	9.9	15.9	7.1	8.3	6.3	4.3
Median	-1.7	-2.6	7.3	13.6	5.5	6.9	5.4	3.4
75th Percentile	-3.4	-4.0	5.3	12.0	3.8	5.6	4.4	2.5
95th Percentile	-4.0	-5.2	3.4	8.0	2.7	4.3	2.7	1.2
# of Portfolios	149	148	146	139	138	118	92	70
● Developed Markets	-1.3 (39)	-2.6 (49)	6.8 (58)	12.5 (62)	5.7 (44)	6.8 (54)	4.8 (69)	2.4 (79)
▲ MSCI ACWI ex USA Gross	-2.4 (67)	-3.4 (63)	7.8 (42)	14.2 (43)	5.6 (50)	6.5 (61)	4.3 (76)	3.0 (65)

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	1,049	2,154
Weighted Avg. Market Cap. (\$B)	51.2	63.2
Median Market Cap. (\$B)	11.8	7.9
Price To Earnings	23.5	19.0
Price To Book	3.7	2.5
Price To Sales	3.1	2.4
Return on Equity (%)	17.8	15.4
Yield (%)	2.9	3.0
Beta (holdings; global)	1.0	1.0

Top Holdings

UNITED OVERSEAS BANK	1.5%
BP	1.2%
SANOFI	1.1%
NASPERS	1.0%
TESCO	1.0%
ENEL	1.0%
HARGREAVES LANSDOWN	0.9%
GLAXOSMITHKLINE	0.9%
SHISEIDO	0.9%
ALIBABA GROUP HLDG.SPN. ADR 1:1	0.9%

Best Performers

	Return %
ALTICE EUROPE (H:ATC)	160.7%
CAPITA (UKIR:CPI)	71.2%
SJM HOLDINGS (K:SJMH)	45.2%
SES FDR (LX:SES)	43.3%
TEVA PHARM.INDS.ADR 1:1 (TEVA)	42.3%
AKER BP (N:AKEP)	37.7%
WIRECARD (D:WDI)	36.9%
CHINA BLUE CHEMICAL 'H' (K:CHBC)	36.1%
START TODAY (J:STRT)	35.6%
UBISOFT ENTM. (F:UBI)	30.2%

Worst Performers

	Return %
OSRAM LICHT (D:OSR)	-44.5%
KROTON EDUCACIONAL ON (BR:KRO)	-40.2%
VENTURE CORPORATION (T:VEMA)	-37.2%
ITAUSA INVESTIMENTOS ITAU PN (BR:IS4)	-36.7%
KINGSTON FINANCIAL GROUP (K:STIM)	-36.2%
SURUGA BANK (J:SURB)	-35.2%
PANDORA (DK:PND)	-34.8%
HYPERMARCAS ON (BR:HYP)	-33.7%
ITAU UNIBANCO BANCO HLDG.ADR 1:1 (ITUB)	-33.4%
METRO (OTC) (MTTWF)	-31.8%

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	0.2%	-0.2%	0.0%	10.1%	7.5%	5.0%	6.7%			
Materials	0.2%	0.2%	-0.1%	0.0%	1.8%	-0.3%	5.2%	8.0%			
Industrials	-0.2%	-0.1%	0.0%	-0.1%	-3.0%	-2.5%	13.8%	11.8%			
Consumer Discretionary	-0.2%	0.0%	0.0%	-0.2%	-3.2%	-3.0%	15.3%	11.3%			
Consumer Staples	0.1%	0.2%	0.0%	-0.1%	1.1%	-0.4%	10.6%	9.4%			
Health Care	-0.1%	-0.1%	0.0%	0.0%	0.6%	1.6%	8.9%	7.7%			
Financials	0.7%	0.4%	0.2%	0.1%	-5.3%	-7.0%	18.9%	23.2%			
Information Technology	0.5%	0.6%	0.0%	0.0%	1.5%	-2.8%	11.6%	11.8%			
Telecommunication Services	0.0%	0.0%	0.0%	0.0%	-4.7%	-5.8%	4.2%	3.9%			
Utilities	0.0%	0.0%	0.0%	0.0%	-1.4%	-1.1%	3.7%	3.0%			
Real Estate	0.1%	0.1%	0.0%	0.0%	-1.1%	-2.6%	1.9%	3.1%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	1.1%	0.0%			
Unclassified	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	1.1%	=	1.5%	+	0.0%	+	-0.3%	-1.2%	-2.4%	100.0%	100.0%

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

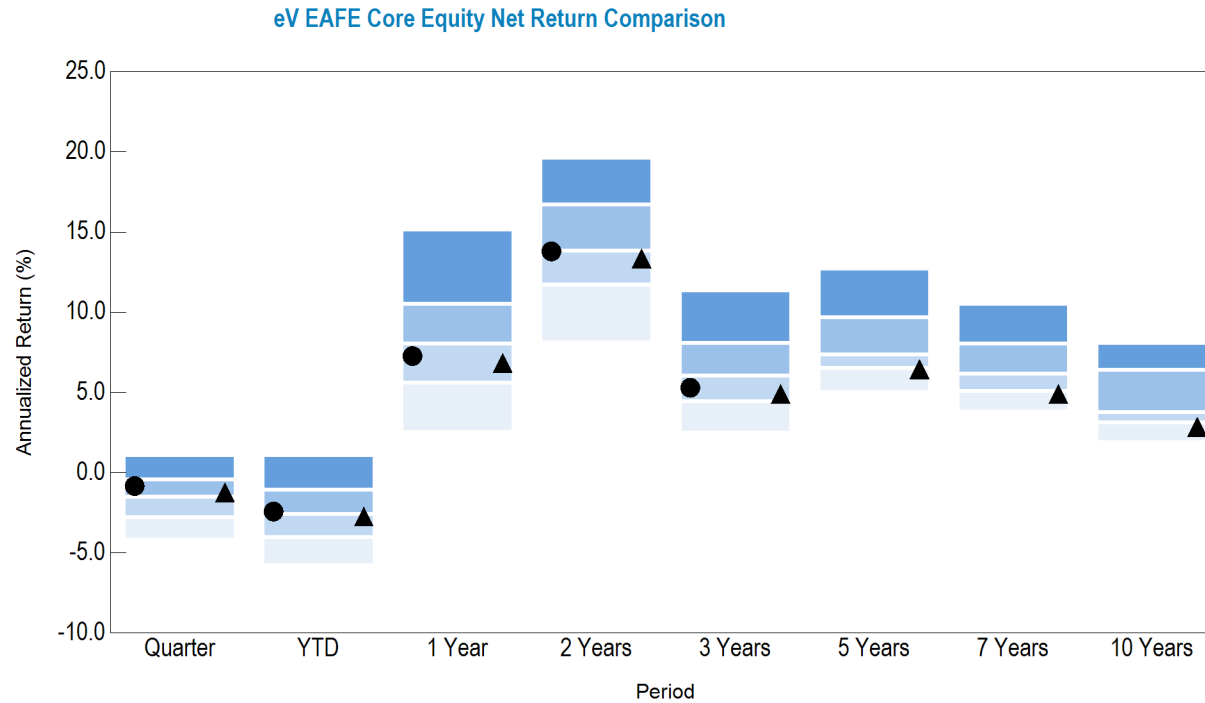
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	-10.4%	-10.3%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Belgium	-6.0%	-5.9%	0.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Czech Republic*	--	-3.1%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Denmark	-4.2%	-6.9%	1.9%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Finland	2.2%	2.2%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
France	-1.7%	0.4%	5.6%	7.5%	-0.2%	-0.1%	0.1%	0.0%	-0.1%
Germany	-3.6%	-3.6%	8.3%	6.6%	0.0%	0.0%	-0.1%	0.0%	-0.1%
Greece*	--	-2.0%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-14.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Ireland	0.0%	1.9%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Italy	-2.9%	-6.8%	2.4%	1.7%	0.1%	0.0%	0.0%	0.0%	0.0%
Luxembourg	13.1%	-2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Netherlands	4.0%	-0.3%	3.0%	2.5%	0.1%	0.0%	0.0%	0.0%	0.1%
Norway	3.0%	3.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Poland*	--	-11.6%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Portugal	-15.4%	2.3%	0.5%	0.1%	0.0%	0.0%	0.0%	-0.1%	-0.1%
Russia*	-6.4%	-5.7%	0.6%	0.9%	-0.1%	0.0%	0.1%	0.0%	0.0%
Spain	-1.9%	-4.1%	3.1%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%
Sweden	-1.1%	-3.3%	3.6%	1.8%	0.0%	0.0%	-0.1%	0.0%	0.0%
Switzerland	-2.8%	-2.2%	5.3%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%
United Kingdom	5.7%	2.9%	15.1%	11.9%	0.3%	0.2%	-0.2%	0.1%	0.4%

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	3.4%	5.3%	4.3%	4.5%	-0.1%	0.0%	0.0%	0.0%	-0.1%
China*	-0.1%	-3.2%	3.9%	7.6%	0.3%	0.2%	0.0%	-0.1%	0.3%
Hong Kong	-2.9%	-1.3%	3.7%	2.5%	0.0%	0.0%	0.0%	0.0%	-0.1%
India*	1.4%	-0.4%	2.4%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Indonesia*	-22.0%	-12.2%	0.1%	0.5%	-0.1%	0.0%	0.0%	0.0%	0.0%
Japan	-2.0%	-3.0%	18.1%	16.8%	0.2%	0.0%	-0.1%	0.0%	0.1%
Korea*	-7.8%	-9.3%	2.2%	3.8%	0.0%	0.1%	0.1%	0.0%	0.2%
Malaysia*	-8.7%	-11.6%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
New Zealand	5.8%	5.8%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Pakistan*	--	-20.5%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Philippines*	-14.2%	-11.1%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Singapore	-5.4%	-7.2%	3.3%	0.9%	0.0%	-0.1%	-0.1%	0.0%	-0.2%
Taiwan*	-10.6%	-6.0%	2.2%	2.9%	-0.2%	0.0%	0.1%	0.1%	0.0%
Thailand*	-8.1%	-14.9%	0.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.1%
Americas									
Brazil*	-19.0%	-26.5%	1.7%	1.9%	0.1%	0.0%	0.1%	0.0%	0.2%
Canada	7.4%	4.8%	1.0%	6.1%	0.1%	-0.2%	0.1%	-0.1%	-0.1%
Chile*	--	-10.8%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Colombia*	--	6.8%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	3.1%	-3.4%	0.4%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%
Peru*	1.0%	-3.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
United States	0.4%	3.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Developed Markets Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	-7.5%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Israel	13.8%	10.8%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Qatar*	6.7%	4.4%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Romania**	-10.0%	-6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
South Africa*	-1.0%	-11.3%	1.7%	1.7%	0.2%	0.0%	0.0%	0.0%	0.2%
Turkey*	-29.5%	-25.9%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
United Arab Emirates*	5.6%	-3.0%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Totals									
Americas	-5.8%	-2.8%	4.1%	9.3%	-0.2%	0.0%	0.2%	0.1%	0.1%
Europe	0.1%	-1.1%	51.0%	44.8%	0.6%	0.1%	-0.4%	0.1%	0.4%
Asia/Pacific	-2.4%	-3.2%	41.5%	43.3%	0.3%	0.0%	0.1%	0.0%	0.4%
Other	-1.8%	-8.7%	2.3%	2.6%	0.2%	0.0%	0.0%	0.0%	0.2%
Cash	0.5%	--	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-1.2%	-2.4%	100.0%	100.0%	0.9%	0.2%	-0.1%	0.2%	1.1%
Totals									
Developed	-0.4%	-0.5%	81.8%	74.5%	0.3%	0.1%	-0.5%	0.0%	-0.1%
Emerging*	-5.4%	-7.7%	17.0%	25.5%	0.6%	0.5%	0.4%	-0.2%	1.2%
Frontier**	-10.0%	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.5%	--	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	1.1	1.1	15.1	19.6	11.3	12.7	10.5	8.1
25th Percentile	-0.4	-1.0	10.5	16.7	8.1	9.7	8.1	6.4
Median	-1.5	-2.6	8.1	13.9	6.1	7.4	6.2	3.8
75th Percentile	-2.8	-4.0	5.6	11.8	4.5	6.6	5.1	3.1
95th Percentile	-4.2	-5.8	2.5	8.1	2.5	5.0	3.8	1.9
# of Portfolios	137	137	136	134	127	109	94	81
● BlackRock EAFE Index	-0.8 (31)	-2.4 (48)	7.3 (61)	13.8 (52)	5.3 (61)	-- (--)	-- (--)	-- (--)
▲ MSCI EAFE	-1.2 (46)	-2.7 (55)	6.8 (65)	13.4 (58)	4.9 (66)	6.4 (77)	4.9 (80)	2.8 (86)

Characteristics

	Portfolio	MSCI EAFE
Number of Holdings	929	926
Weighted Avg. Market Cap. (\$B)	56.2	56.3
Median Market Cap. (\$B)	10.9	10.9
Price To Earnings	20.4	18.9
Price To Book	3.0	2.5
Price To Sales	2.5	2.3
Return on Equity (%)	15.9	14.4
Yield (%)	3.1	3.1
Beta (holdings: global)	1.0	1.0

Top Holdings

NESTLE 'R'	1.6%
HSBC HOLDINGS	1.3%
NOVARTIS 'R'	1.2%
ROYAL DUTCH SHELL A	1.1%
ROCHE HOLDING	1.1%
BP	1.1%
TOTAL	1.0%
TOYOTA MOTOR	1.0%
ROYAL DUTCH SHELL B	0.9%
BRITISH AMERICAN TOBACCO	0.8%

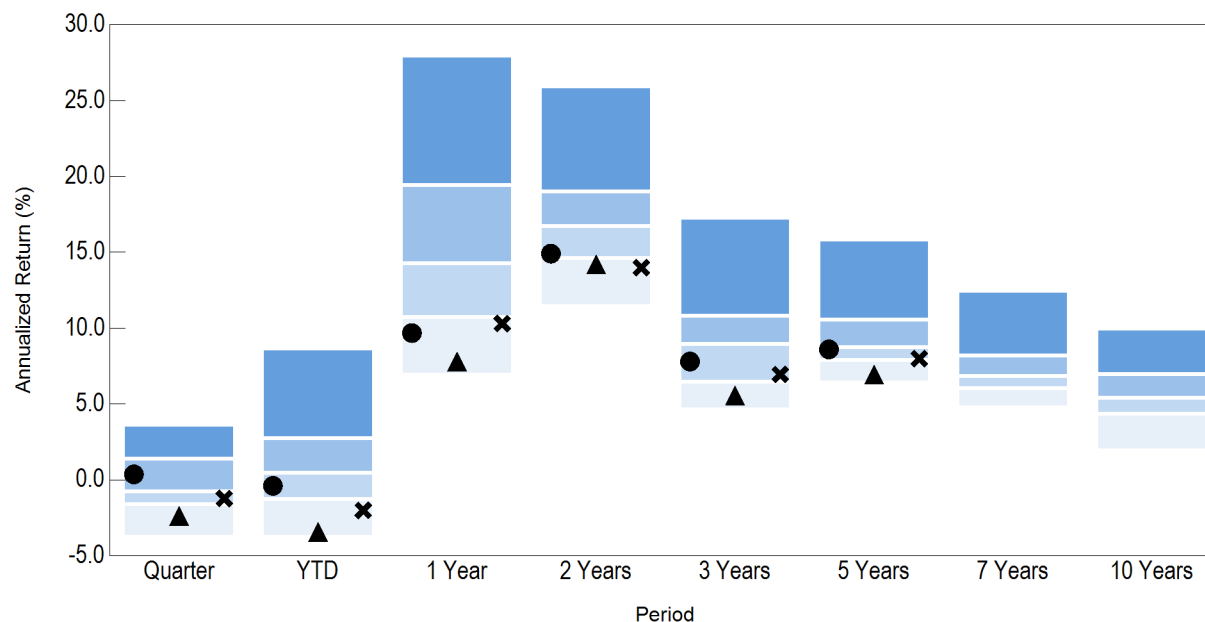
Best Performers

	Return %
ALTICE EUROPE (H:ATC)	160.7%
CAPITA (UKIR:CPI)	71.2%
SJM HOLDINGS (K:SJM)	45.2%
SES FDR (LX:SES)	43.3%
TEVA PHARM.INDS.ADR 1:1 (TEVA)	42.3%
AKER BP (N:AKEP)	37.7%
WIRECARD (D:WDI)	36.9%
START TODAY (J:STRT)	35.6%
UBISOFT ENTM. (F:UBI)	30.2%
LUNDIN PETROLEUM (W:LUPE)	29.7%

Worst Performers

	Return %
OSRAM LIGHT (D:OSR)	-44.5%
VENTURE CORPORATION (T:VEMA)	-37.2%
KINGSTON FINANCIAL GROUP (K:STIM)	-36.2%
SURUGA BANK (J:SURB)	-35.2%
PANDORA (DK:PND)	-34.8%
METRO (OTC) (MTTWF)	-31.8%
MIXI (J:MIXI)	-31.5%
AMP (A:AMPX)	-31.3%
THK (J:THAK)	-30.7%
TELENET GROUP HOLDING (B:TNET)	-30.0%

eV ACWI ex-US Growth Equity Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	3.6	8.6	27.9	25.9	17.3	15.8	12.5	10.0
25th Percentile	1.4	2.8	19.5	19.1	10.8	10.6	8.2	7.0
Median	-0.7	0.5	14.3	16.7	9.0	8.8	6.9	5.4
75th Percentile	-1.6	-1.2	10.8	14.6	6.5	7.9	6.1	4.4
95th Percentile	-3.7	-3.7	6.9	11.5	4.7	6.5	4.8	2.0
# of Portfolios	69	69	69	69	66	54	50	43
● Baillie Gifford	0.4 (38)	-0.4 (70)	9.7 (80)	14.9 (68)	7.8 (65)	8.6 (55)	-- (--)	-- (--)
▲ MSCI ACWI ex US	-2.4 (85)	-3.4 (92)	7.8 (92)	14.2 (81)	5.6 (90)	6.9 (90)	-- (--)	-- (--)
✕ MSCI ACWI ex US Growth	-1.2 (63)	-2.0 (79)	10.3 (76)	14.0 (83)	6.9 (72)	8.0 (75)	-- (--)	-- (--)

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	88	2,154
Weighted Avg. Market Cap. (\$B)	46.0	63.2
Median Market Cap. (\$B)	13.9	7.9
Price To Earnings	35.0	19.0
Price To Book	6.7	2.5
Price To Sales	4.8	2.4
Return on Equity (%)	25.5	15.4
Yield (%)	1.6	3.0
Beta (holdings; global)	1.1	1.0

Top Holdings

NASPERS	2.9%
ALIBABA GROUP HLDG.SPN. ADR 1:1	2.7%
HARGREAVES LANSDOWN	2.7%
TAIWAN SEMICON.SPN.ADR 1:5	2.6%
SHISEIDO	2.5%
COCHLEAR	2.3%
INDITEX	2.1%
RIGHTMOVE	2.1%
ZALANDO	2.1%
NOVOZYMES	1.9%

Best Performers

	Return %
KAKAKU.COM (J:KAKA)	29.0%
SHISEIDO (J:SHDO)	24.2%
BURBERRY GROUP (UKIR:BRBY)	21.6%
KINGSPAN GROUP (UKIR:KRX)	18.3%
SHOPIFY 'A' (NYS) (SHOP)	17.1%
INTERTEK GROUP (UKIR:ITRK)	16.5%
RIGHTMOVE (UKIR:RMV)	15.9%
HOMESERVE (UKIR:HSV)	14.6%
AUTO TRADER GROUP (UKIR:AUTO)	14.3%
JOHNSON MATTHEY (UKIR:JMAT)	13.7%

Worst Performers

	Return %
SURUGA BANK (J:SURB)	-35.2%
DISTRIBUIDORA INTNAC.DE ALIMENTACION (E:DIA)	-31.3%
RAIA DROGASIL ON (BR:DR3)	-23.1%
ASOS (UKIR:ASC)	-17.5%
JERONIMO MARTINS (P:JMT)	-17.1%
BRAMBLES (A:BXBX)	-14.3%
TAIWAN SEMICON.SPN.ADR 1:5 (TSM)	-13.4%
PUREGOLD PRICE CLUB (PH:PUR)	-13.1%
HON HAI PREC.GDR (UKIR:HHPD)	-12.7%
JUPITER FUND MANAGEMENT (UKIR:JUP)	-11.0%

Baillie Gifford Performance Attribution vs. MSCI ACWI ex USA Gross

	Total Effects	Attribution Effects			Returns		Sector Weights				
		Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	-0.3%	0.5%	-0.7%	-0.2%	12.6%	7.5%	0.4%	6.7%			
Materials	0.3%	0.5%	-0.1%	0.0%	5.4%	-0.1%	4.5%	8.0%			
Industrials	0.1%	0.2%	0.0%	-0.1%	-0.5%	-2.5%	15.0%	11.8%			
Consumer Discretionary	0.3%	0.5%	0.0%	-0.2%	0.6%	-3.1%	19.3%	11.4%			
Consumer Staples	-0.2%	0.0%	0.1%	-0.3%	-0.9%	-0.4%	15.2%	9.4%			
Health Care	0.0%	0.0%	0.0%	0.1%	2.3%	1.7%	7.2%	7.7%			
Financials	1.4%	1.2%	0.3%	-0.1%	-1.8%	-7.0%	16.9%	23.2%			
Information Technology	0.8%	0.6%	-0.1%	0.3%	2.8%	-2.8%	19.5%	11.8%			
Telecommunication Services	0.3%	0.1%	0.1%	0.1%	-3.7%	-5.8%	0.8%	3.9%			
Utilities	0.1%	--	0.0%	--	--	-1.1%	0.0%	3.0%			
Real Estate	0.1%	--	0.0%	--	--	-2.5%	0.0%	3.2%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	1.2%	0.0%			
Portfolio	3.0%	=	3.6%	+	-0.4%	+	-0.2%	0.6%	-2.4%	100.0%	100.0%

Baillie Gifford Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	--	-10.3%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Belgium	--	-6.0%	0.0%	0.8%	--	0.0%	0.0%	--	0.1%
Czech Republic*	--	-3.1%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Denmark	-2.9%	-6.8%	2.9%	1.3%	0.1%	-0.1%	-0.1%	0.1%	0.0%
Finland	2.3%	2.2%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
France	-4.4%	0.3%	1.6%	7.5%	-0.4%	-0.2%	0.3%	0.3%	0.0%
Germany	-1.0%	-3.4%	6.9%	6.6%	0.2%	0.0%	0.0%	0.0%	0.1%
Greece*	--	-2.0%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-14.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Ireland	--	1.9%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Italy	--	-6.7%	0.0%	1.7%	--	0.1%	0.1%	--	0.2%
Netherlands	1.5%	-1.0%	1.5%	2.5%	0.1%	0.0%	0.0%	0.0%	0.1%
Norway	--	3.0%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Poland*	--	-11.6%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Portugal	-17.1%	2.1%	1.4%	0.1%	0.0%	0.1%	-0.1%	-0.2%	-0.3%
Russia*	3.0%	-5.7%	0.3%	0.9%	0.0%	0.0%	0.1%	0.0%	0.1%
Spain	1.4%	-4.0%	2.4%	2.2%	0.1%	0.0%	0.0%	0.0%	0.1%
Sweden	-6.4%	-3.3%	4.9%	1.8%	-0.1%	0.0%	-0.2%	-0.1%	-0.3%
Switzerland	-1.3%	-2.2%	3.7%	5.4%	0.1%	0.0%	0.1%	0.0%	0.1%
United Kingdom	8.1%	2.9%	13.1%	11.9%	0.7%	0.1%	-0.1%	0.0%	0.7%

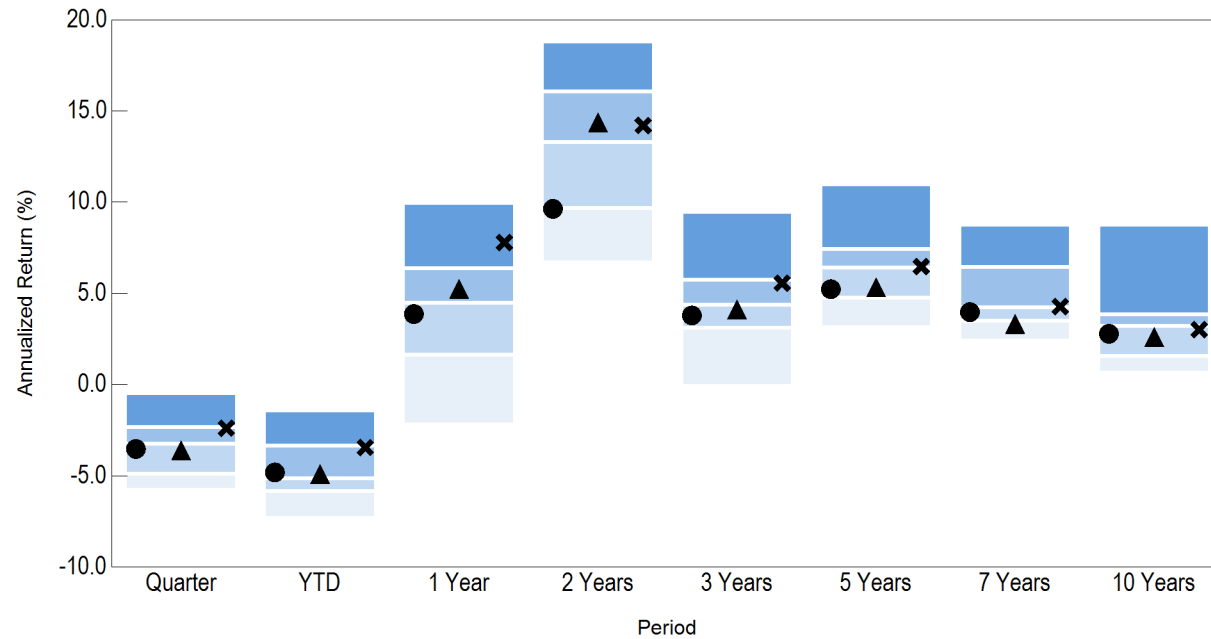
Baillie Gifford Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	3.0%	5.3%	5.6%	4.5%	-0.1%	0.0%	0.0%	0.0%	-0.1%
China*	2.6%	-3.2%	8.5%	7.6%	0.4%	-0.1%	0.0%	0.1%	0.4%
Hong Kong	4.4%	-1.3%	1.8%	2.5%	0.1%	0.0%	0.0%	0.0%	0.1%
India*	6.8%	-0.3%	3.7%	2.1%	0.1%	0.0%	0.0%	0.1%	0.2%
Indonesia*	--	-12.2%	0.0%	0.5%	--	0.1%	0.0%	--	0.1%
Japan	3.1%	-2.9%	17.0%	16.7%	1.0%	0.0%	0.0%	0.0%	1.0%
Korea*	-7.6%	-9.2%	2.9%	3.8%	0.0%	0.1%	0.1%	0.0%	0.2%
Malaysia*	-6.8%	-11.5%	1.1%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
New Zealand	--	5.7%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Pakistan*	--	-20.5%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Philippines*	-13.1%	-11.1%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Singapore	-5.0%	-7.2%	3.9%	0.9%	0.0%	-0.2%	-0.1%	0.0%	-0.2%
Taiwan*	-13.2%	-6.0%	3.9%	3.0%	-0.3%	0.0%	0.1%	-0.1%	-0.3%
Thailand*	--	-14.9%	0.0%	0.6%	--	0.1%	0.0%	--	0.1%
Americas									
Brazil*	-23.1%	-26.5%	1.4%	1.9%	0.1%	0.1%	0.1%	0.0%	0.2%
Canada	13.8%	4.9%	2.0%	6.1%	0.5%	-0.2%	0.1%	-0.3%	0.1%
Chile*	--	-11.0%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Colombia*	--	6.9%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	5.9%	-3.4%	0.6%	0.7%	0.1%	0.0%	0.0%	0.0%	0.1%
Peru*	--	-3.2%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
United States	2.2%	3.4%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%

Baillie Gifford Performance Attribution vs. MSCI ACWI ex USA Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	-7.5%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Israel	--	10.8%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Qatar*	--	4.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
South Africa*	0.5%	-11.3%	4.3%	1.7%	0.2%	0.0%	-0.4%	0.3%	0.2%
Turkey*	--	-25.9%	0.0%	0.2%	--	0.0%	0.0%	--	0.1%
United Arab Emirates*	--	-3.0%	0.0%	0.2%	--	0.0%	0.0%	--	0.0%
Totals									
Americas	0.8%	-2.8%	6.1%	9.2%	0.2%	0.0%	0.2%	-0.1%	0.4%
Europe	0.8%	-1.1%	39.7%	44.8%	1.0%	-0.1%	0.2%	-0.2%	0.9%
Asia/Pacific	0.3%	-3.2%	48.7%	43.3%	1.3%	-0.1%	0.1%	0.2%	1.5%
Other	0.5%	-8.7%	4.3%	2.6%	0.4%	0.0%	-0.4%	0.2%	0.2%
Cash	0.5%	--	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	0.6%	-2.4%	100.0%	100.0%	2.8%	-0.2%	0.2%	0.2%	3.0%
Totals									
Developed	1.8%	-0.5%	71.8%	74.5%	1.7%	-0.1%	0.1%	-0.1%	1.7%
Emerging*	-2.5%	-7.7%	27.1%	25.5%	1.2%	-0.1%	0.0%	0.1%	1.3%
Cash	0.5%	--	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

eV ACWI ex-US Value Equity Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	-0.5	-1.4	9.9	18.8	9.5	11.0	8.8	8.7
25th Percentile	-2.3	-3.3	6.4	16.1	5.8	7.4	6.5	3.9
Median	-3.2	-5.1	4.5	13.3	4.4	6.4	4.3	3.2
75th Percentile	-4.9	-5.8	1.7	9.7	3.1	4.8	3.5	1.6
95th Percentile	-5.8	-7.3	-2.2	6.7	-0.1	3.2	2.4	0.7
# of Portfolios	37	37	37	37	33	28	20	16
● Mondrian	-3.5 (60)	-4.8 (46)	3.9 (60)	9.6 (76)	3.8 (59)	5.2 (66)	4.0 (58)	2.8 (63)
▲ MSCI ACWI ex USA Value Gross	-3.6 (62)	-4.9 (46)	5.3 (38)	14.4 (37)	4.1 (58)	5.3 (66)	3.3 (78)	2.6 (67)
✕ MSCI ACWI ex USA Gross	-2.4 (28)	-3.4 (27)	7.8 (16)	14.2 (39)	5.6 (32)	6.5 (48)	4.3 (50)	3.0 (58)

Characteristics

	Portfolio	MSCI ACWI ex USA Value Gross
Number of Holdings	129	1,267
Weighted Avg. Market Cap. (\$B)	51.6	57.6
Median Market Cap. (\$B)	18.6	7.0
Price To Earnings	15.1	13.9
Price To Book	1.8	1.5
Price To Sales	1.7	1.7
Return on Equity (%)	12.2	11.7
Yield (%)	4.1	4.1
Beta (holdings: global)	0.9	1.0

Top Holdings

TESCO	2.7%
SANOFI	2.6%
ENEL	2.6%
BP	2.5%
ENI	2.5%
UNITED OVERSEAS BANK	2.4%
TELIA COMPANY	2.2%
CK HUTCHISON HOLDINGS	2.2%
HONDA MOTOR	2.2%
IBERDROLA	2.2%

Best Performers

	Return %
CHINA BLUE CHEMICAL 'H' (K:CHBC)	36.1%
ERICSSON 'B' (W:SL@G)	22.5%
TESCO (UKIR:TSCO)	18.3%
SUZANO PAPEL E CELULOSE ON (BR:SUZ)	17.0%
LUPIN (IN:LUP)	16.9%
QATAR NATIONAL BANK (QA:QNB)	16.5%
BP (UKIR:BP.)	15.1%
ROYAL DUTCH SHELL B (UKIR:RDSB)	13.6%
INFOSYS (IN:INE)	12.7%
WOOD GROUP (JOHN) (UKIR:WG.)	12.6%

Worst Performers

	Return %
KROTON EDUCACIONAL ON (BR:KRO)	-40.2%
ITAUSA INVESTIMENTOS ITAU PN (BR:IS4)	-36.7%
HYPERMARCAS ON (BR:HYP)	-33.7%
ITAU UNIBANCO BANCO HLDG.ADR 1:1 (ITUB)	-33.4%
CIELO ON (BR:VIS)	-31.0%
TKI.GARANTI BKSJ. (TK:GAR)	-30.9%
CMPH.COCS. RODOVIARIAS ON (BR:CCR)	-28.9%
TURKIYE HALK BANKASI (TK:HLB)	-28.5%
KOREA ZINC (KO:KRZ)	-22.9%
BANK RAKYAT INDONESIA (ID:BRI)	-22.0%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Value Gross

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.3%	0.4%	-0.1%	0.0%	9.9%	6.9%	9.1%	10.9%			
Materials	0.2%	0.3%	-0.2%	0.1%	2.9%	-1.0%	3.1%	7.4%			
Industrials	-0.6%	-0.3%	0.0%	-0.3%	-6.0%	-3.0%	11.9%	8.3%			
Consumer Discretionary	-0.7%	-0.2%	-0.2%	-0.4%	-9.0%	-6.7%	14.1%	9.6%			
Consumer Staples	0.5%	0.3%	0.2%	0.0%	9.7%	1.7%	5.6%	3.3%			
Health Care	-0.2%	-0.2%	0.3%	-0.4%	-1.8%	1.7%	9.4%	5.2%			
Financials	1.8%	0.3%	0.8%	0.7%	-6.7%	-7.5%	19.0%	36.1%			
Information Technology	0.3%	0.4%	-0.1%	0.1%	3.4%	-6.0%	8.5%	3.7%			
Telecommunication Services	-0.2%	0.0%	-0.1%	-0.1%	-5.9%	-5.5%	7.9%	6.2%			
Utilities	-0.1%	0.0%	0.1%	-0.2%	-1.6%	-1.3%	7.8%	4.8%			
Real Estate	0.1%	0.1%	0.0%	0.0%	-1.0%	-2.0%	2.5%	4.5%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	1.1%	0.0%			
Unclassified	0.0%	--	--	--	--	--	0.0%	0.0%			
Portfolio	1.4%	=	1.1%	+	0.8%	+	-0.5%	-2.1%	-3.5%	100.0%	100.0%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Value Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Austria	--	-9.4%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Belgium	--	-7.7%	0.0%	0.5%	--	0.0%	0.0%	--	0.0%
Czech Republic*	--	-2.2%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Denmark	-3.4%	-14.6%	1.0%	0.3%	0.0%	-0.1%	0.0%	0.1%	0.0%
Finland	--	1.5%	0.0%	0.8%	--	0.0%	0.0%	--	0.0%
France	-5.0%	-2.9%	4.9%	7.3%	-0.2%	0.0%	0.1%	0.1%	0.0%
Germany	-5.6%	-6.7%	8.6%	6.2%	0.1%	-0.1%	-0.1%	0.0%	-0.1%
Greece*	--	-2.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Hungary*	--	-13.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Ireland	--	-9.5%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Italy	-0.8%	-8.3%	4.7%	2.7%	0.2%	-0.1%	-0.1%	0.2%	0.2%
Netherlands	7.5%	-6.8%	3.2%	1.4%	0.2%	-0.1%	-0.1%	0.3%	0.3%
Norway	--	4.8%	0.0%	0.7%	--	-0.1%	0.0%	--	0.0%
Poland*	--	-11.8%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Portugal	--	8.4%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Russia*	-7.2%	-4.2%	1.4%	0.9%	-0.1%	0.0%	0.1%	-0.1%	-0.1%
Spain	-2.3%	-6.8%	3.5%	3.4%	0.2%	0.0%	0.0%	0.0%	0.1%
Sweden	8.4%	-7.1%	3.3%	1.1%	0.2%	0.0%	-0.2%	0.4%	0.3%
Switzerland	-4.9%	-4.9%	4.8%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%
United Kingdom	6.4%	4.2%	17.3%	13.7%	0.3%	0.3%	-0.3%	0.1%	0.5%

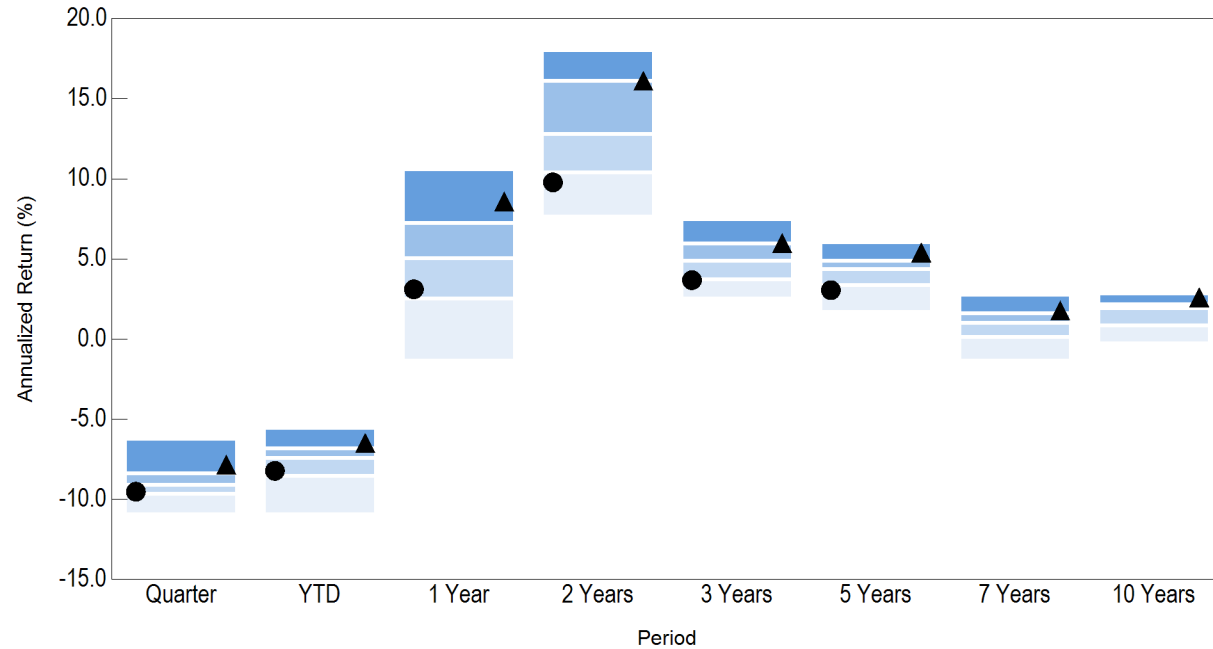
Mondrian Performance Attribution vs. MSCI ACWI ex USA Value Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
AsiaPacific									
Australia	-2.6%	-0.3%	0.9%	4.2%	-0.1%	-0.1%	0.1%	0.1%	0.0%
China*	-7.4%	-4.4%	3.1%	7.6%	-0.1%	0.2%	0.0%	0.1%	0.1%
Hong Kong	-7.4%	-1.1%	4.7%	2.4%	-0.2%	-0.1%	0.0%	-0.1%	-0.4%
India*	-4.2%	-1.8%	3.5%	2.0%	-0.1%	0.0%	-0.1%	0.0%	-0.1%
Indonesia*	-22.0%	-15.1%	0.4%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Japan	-6.9%	-3.1%	13.1%	16.7%	-0.7%	0.0%	0.2%	0.1%	-0.3%
Korea*	-7.9%	-10.3%	3.6%	3.7%	0.1%	0.0%	0.0%	0.0%	0.1%
Malaysia*	-10.3%	-13.2%	1.3%	0.6%	0.0%	-0.1%	0.0%	0.0%	-0.1%
New Zealand	--	5.9%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Pakistan*	--	-18.8%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Philippines*	-16.0%	-14.3%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Singapore	-5.5%	-9.4%	4.4%	0.9%	0.0%	-0.2%	-0.1%	0.1%	-0.2%
Taiwan*	-6.5%	-3.5%	2.5%	3.0%	-0.1%	0.0%	0.0%	0.0%	-0.1%
Thailand*	-8.1%	-14.9%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Americas									
Brazil*	-17.4%	-24.9%	3.6%	2.1%	0.1%	-0.2%	0.0%	0.1%	-0.1%
Canada	-4.6%	4.4%	1.1%	6.1%	-0.6%	-0.3%	0.1%	0.5%	-0.3%
Chile*	--	-11.0%	0.0%	0.3%	--	0.0%	0.0%	--	0.0%
Colombia*	--	6.5%	0.0%	0.1%	--	0.0%	0.0%	--	0.0%
Mexico*	-0.3%	-3.6%	0.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Peru*	1.0%	-2.1%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

Mondrian Performance Attribution vs. MSCI ACWI ex USA Value Gross

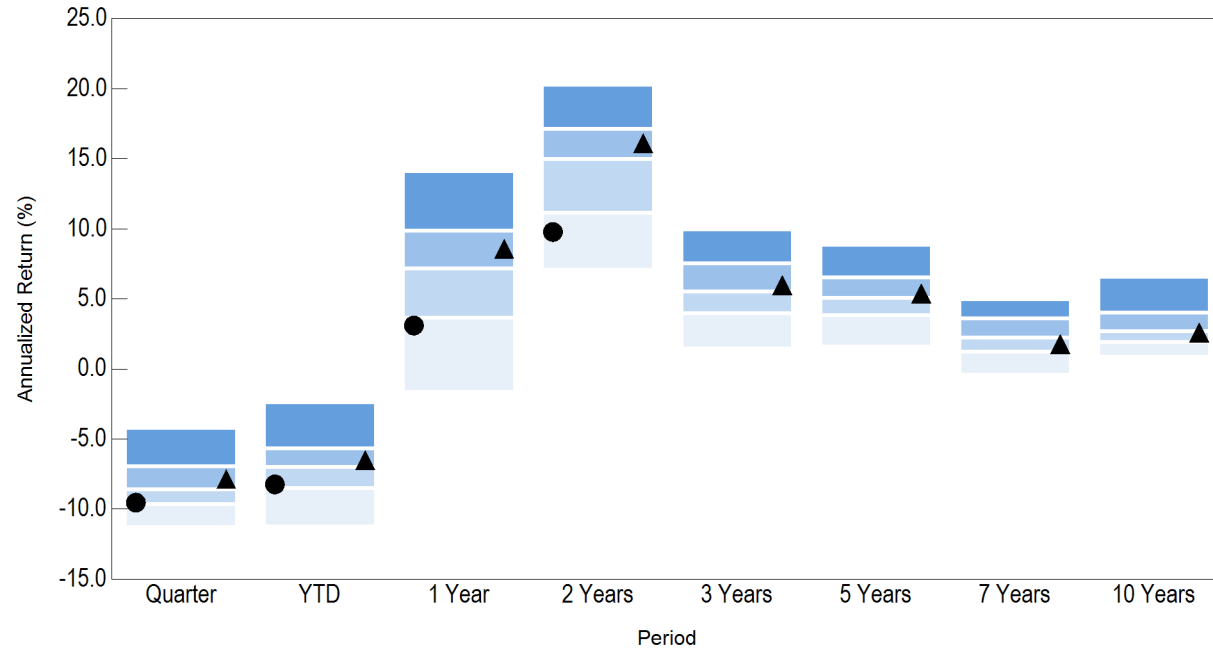
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	--	-4.8%	0.0%	0.0%	--	0.0%	0.0%	--	0.0%
Israel	--	18.2%	0.0%	0.3%	--	-0.1%	0.0%	--	-0.1%
Qatar*	6.7%	5.2%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Romania**	-10.0%	-3.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
South Africa*	-9.0%	-18.3%	0.8%	1.8%	0.2%	0.1%	0.1%	-0.1%	0.3%
Turkey*	-29.5%	-26.2%	0.6%	0.2%	0.0%	-0.1%	0.0%	0.0%	-0.1%
United Arab Emirates*	5.6%	-0.8%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Totals									
Americas	-12.4%	-3.3%	5.5%	9.5%	-0.7%	0.0%	0.1%	0.3%	-0.3%
Europe	0.8%	-2.4%	52.8%	45.0%	1.5%	0.2%	-0.5%	0.3%	1.4%
Asia/Pacific	-6.9%	-4.2%	38.4%	42.8%	-1.1%	0.1%	0.1%	0.1%	-0.8%
Other	-8.7%	-12.0%	2.2%	2.8%	0.0%	0.0%	0.1%	0.0%	0.1%
Cash	0.5%	--	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-3.1%	-3.5%	100.0%	100.0%	-0.3%	0.2%	-0.2%	0.7%	0.4%
Totals									
Developed	-1.4%	-1.7%	75.5%	74.4%	0.5%	0.0%	-0.3%	0.0%	0.2%
Emerging*	-8.8%	-8.7%	23.3%	25.6%	0.0%	0.1%	0.1%	0.0%	0.2%
Frontier**	-10.0%	--	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.5%	--	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

InvestorForce All DB Emg Mkt Eq Net Return Comparison



	Return (Rank)									
5th Percentile	-6.2	-5.6	10.6	18.0	7.5	6.0	2.8	2.8		
25th Percentile	-8.4	-6.8	7.3	16.2	6.0	4.9	1.6	2.2		
Median	-9.1	-7.4	5.0	12.8	4.9	4.4	1.0	1.9		
75th Percentile	-9.6	-8.5	2.5	10.4	3.7	3.4	0.2	0.9		
95th Percentile	-10.9	-10.9	-1.3	7.7	2.6	1.7	-1.3	-0.3		
# of Portfolios	92	91	89	85	81	66	44	15		
● Emerging Markets	-9.5 (73)	-8.2 (68)	3.1 (72)	9.8 (85)	3.7 (81)	3.0 (79)	-- (--)	-- (--)	-- (--)	-- (--)
▲ MSCI Emerging Markets Gross	-7.9 (14)	-6.5 (16)	8.6 (14)	16.1 (28)	6.0 (31)	5.4 (18)	1.8 (21)	2.6 (7)		

eV Emg Mkts Equity Net Return Comparison



	Return (Rank)															
	Quarter		YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	-4.2	-2.4	14.1	20.2	9.9	8.9	5.0	6.6								
25th Percentile	-6.9	-5.6	9.9	17.2	7.6	6.6	3.6	4.0								
Median	-8.5	-7.0	7.2	15.0	5.6	5.1	2.3	2.7								
75th Percentile	-9.6	-8.5	3.7	11.2	4.0	3.9	1.3	2.0								
95th Percentile	-11.3	-11.2	-1.6	7.1	1.5	1.6	-0.4	0.9								
# of Portfolios	191	191	190	186	177	148	106	67								
● Parametric Core	-9.5 (73)	-8.2 (72)	3.1 (80)	9.8 (88)	-- (--)	-- (--)	-- (--)	-- (--)								
▲ MSCI Emerging Markets Gross	-7.9 (41)	-6.5 (42)	8.6 (35)	16.1 (39)	6.0 (43)	5.4 (48)	1.8 (67)	2.6 (54)								

Characteristics

	Portfolio	MSCI Emerging Markets Gross
Number of Holdings	1,222	1,138
Weighted Avg. Market Cap. (\$B)	21.8	87.8
Median Market Cap. (\$B)	3.0	5.5
Price To Earnings	22.2	19.4
Price To Book	2.9	2.6
Price To Sales	3.0	2.5
Return on Equity (%)	17.3	18.7
Yield (%)	3.2	2.5
Beta (holdings; global)	0.9	1.0

Top Holdings

AMERICA MOVIL SAB DE CV SPN.ADR 'L' 1:20	1.0%
SBERBANK OF RUSSIA	0.9%
CHINA MOBILE	0.9%
CREDICORP	0.8%
NASPERS	0.8%
LUKOIL OAO SPN.ADR 1:1	0.7%
OAO GAZPROM SPN.ADR 1:2	0.6%
GPO FINANCE BANORTE	0.6%
MTN GROUP	0.6%
GRUPO TELEVISIA SPN.ADR 1:5	0.6%

Best Performers

	Return %
INDAH KIAT PULP & PAPER (ID:IKP)	62.5%
UNI-PRESIDENT CHINA HDG. (K:UNIP)	51.5%
GS ENGR. & CON. (KO:LCV)	48.6%
GZH.BYSH.PHMHD.CO. 'H' (K:GUP)	43.0%
BUKIT ASAM (ID:TBB)	42.3%
VALE INDONESIA (ID:ICO)	39.1%
CHINA BLUE CHEMICAL 'H' (K:CHBC)	36.1%
CD PROJECT RED (PO:CDR)	35.3%
SAMSUNG ELTO.MECHANICS (KO:SEM)	34.6%
HLB (KO:KPI)	33.0%

Worst Performers

	Return %
FOLLI FOLLIE (G:DUTY)	-71.2%
MY EG SERVICES (L:MYEG)	-68.1%
STEINHOFF INTL.HOLDING (R:SNHJ)	-66.2%
UNITED COMPANY RUSAL (K:RUSA)	-56.8%
CTI.ELETR BRAS- ELETROBRAS SR.B PN (BR:EL6)	-51.4%
HOUSING DEV.&INFR. (IN:IHD)	-48.8%
VIA VAREJO UNITS (BR:VVU)	-46.9%
PETKIM PETROKIMYA HLDG. (TK:PET)	-45.8%
ULTRAPAR PARTICIPOES ON (BR:U3G)	-44.0%
MATAHARI PUTRA PRIMA (ID:MPP)	-43.3%

Parametric Core Performance Attribution vs. MSCI Emerging Markets Gross

	Attribution Effects				Returns		Sector Weights				
	Total Effects	Selection Effect	Allocation Effect	Interaction Effects	Portfolio	Benchmark	Portfolio	Benchmark			
Energy	0.0%	-0.1%	0.1%	0.0%	-4.6%	-4.5%	9.7%	7.2%			
Materials	-0.2%	-0.3%	0.3%	-0.2%	-6.5%	-5.3%	12.1%	7.3%			
Industrials	-0.4%	0.0%	-0.2%	-0.3%	-12.1%	-11.3%	9.7%	5.1%			
Consumer Discretionary	-0.2%	-0.3%	0.0%	0.1%	-9.4%	-6.9%	9.0%	9.6%			
Consumer Staples	-0.2%	-0.1%	0.1%	-0.2%	-6.9%	-6.0%	10.0%	6.5%			
Health Care	-0.2%	0.0%	0.1%	-0.2%	-6.6%	-4.3%	6.0%	2.8%			
Financials	1.2%	0.8%	0.4%	0.1%	-9.3%	-12.4%	15.9%	24.1%			
Information Technology	0.2%	-0.3%	-0.1%	0.7%	-7.6%	-5.0%	7.2%	27.5%			
Telecommunication Services	-0.5%	-0.1%	-0.1%	-0.3%	-12.3%	-9.4%	8.6%	4.6%			
Utilities	-0.2%	0.0%	0.0%	-0.2%	-8.7%	-7.5%	6.3%	2.5%			
Real Estate	-0.2%	0.0%	-0.1%	-0.1%	-10.9%	-10.7%	5.2%	2.8%			
Cash	0.0%	0.0%	0.0%	0.0%	0.5%	--	0.2%	0.0%			
Unclassified	0.0%	0.0%	0.0%	0.0%	-5.9%	--	0.0%	0.0%			
Portfolio	-0.8%	=	-0.5%	+	0.5%	+	-0.7%	-8.6%	-7.7%	100.0%	100.0%

Parametric Core Performance Attribution vs. MSCI Emerging Markets Gross

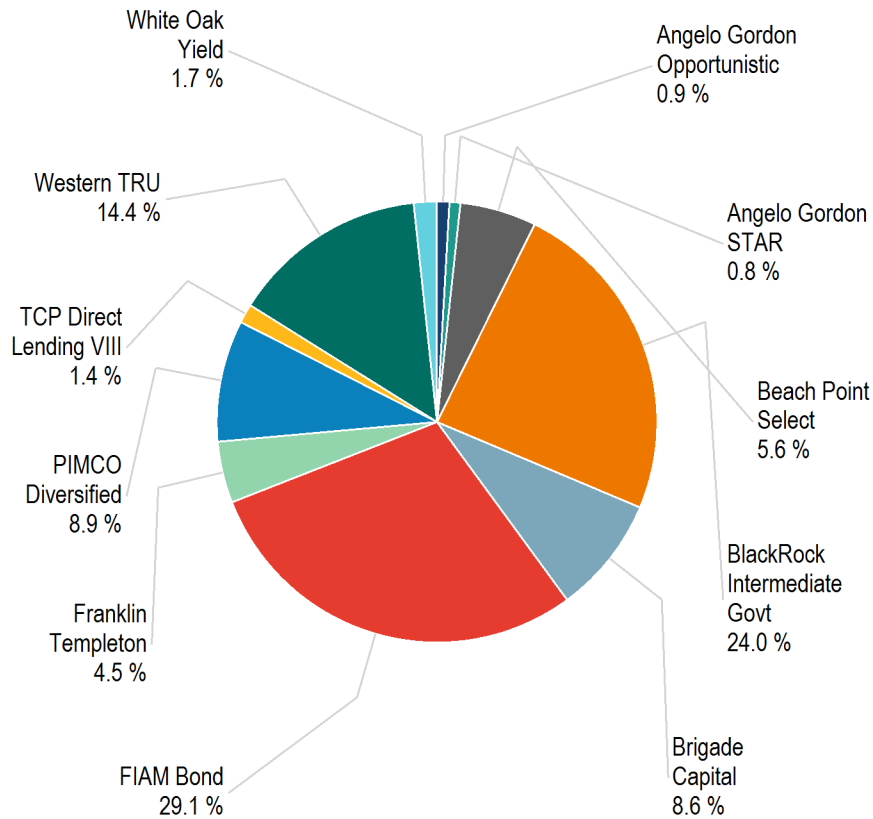
	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Europe									
Czech Republic*	-4.1%	-3.1%	0.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Greece*	-5.2%	-2.0%	1.4%	0.3%	0.0%	0.1%	-0.1%	0.0%	0.0%
Hungary*	-12.8%	-14.4%	0.8%	0.3%	0.0%	0.0%	-0.1%	0.0%	0.0%
Luxembourg	7.1%	-7.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Netherlands	-9.8%	-1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Poland*	-11.0%	-11.6%	3.1%	1.2%	0.0%	0.0%	-0.2%	0.0%	-0.1%
Russia*	-8.5%	-5.7%	6.2%	3.6%	-0.2%	0.1%	0.0%	-0.2%	-0.2%
United Kingdom	-9.1%	2.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
AsiaPacific									
China*	-3.6%	-3.2%	6.0%	30.0%	-0.1%	0.0%	0.0%	0.1%	0.0%
Hong Kong	0.1%	-1.2%	6.8%	0.0%	0.0%	0.1%	0.0%	0.1%	0.2%
India*	-3.6%	-0.4%	6.7%	8.2%	-0.4%	-0.1%	0.2%	0.1%	-0.3%
Indonesia*	-11.6%	-12.2%	3.2%	2.0%	0.0%	-0.1%	0.0%	0.0%	-0.1%
Korea*	-8.7%	-9.3%	7.0%	15.0%	0.1%	0.2%	0.3%	0.0%	0.5%
Malaysia*	-9.8%	-11.6%	3.7%	2.5%	0.0%	-0.1%	0.0%	0.0%	0.0%
Pakistan*	-13.6%	-20.5%	1.6%	0.1%	0.0%	-0.2%	-0.1%	0.1%	-0.2%
Philippines*	-11.7%	-11.1%	3.4%	1.0%	0.0%	-0.1%	0.0%	0.0%	-0.2%
Singapore	-13.3%	-7.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Taiwan*	-3.8%	-6.0%	7.2%	11.6%	0.3%	-0.1%	0.2%	-0.1%	0.3%
Thailand*	-9.8%	-14.9%	3.5%	2.5%	0.1%	-0.1%	-0.1%	0.1%	0.1%
Americas									
Brazil*	-25.8%	-26.5%	7.3%	7.4%	-0.1%	0.0%	0.2%	0.0%	0.1%
Chile*	-11.2%	-10.8%	3.5%	1.2%	0.0%	0.0%	-0.1%	0.0%	-0.2%
Colombia*	3.4%	6.8%	1.7%	0.4%	0.0%	0.2%	-0.1%	-0.1%	0.1%
Mexico*	-4.2%	-3.4%	6.8%	2.9%	-0.1%	0.3%	-0.1%	-0.1%	-0.1%
Peru*	-1.7%	-3.2%	1.5%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
United States	-6.1%	3.4%	1.3%	0.0%	0.0%	0.1%	0.0%	-0.1%	0.0%

Parametric Core Performance Attribution vs. MSCI Emerging Markets Gross

	Returns and Weights				Attribution Effects				Total Effects
	Manager Return	Index Return	Manager Weight	Index Weight	Selection Effect	Allocation Effect	Currency Effect	Interaction Effect	
Other									
Egypt*	-7.0%	-7.5%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Kuwait**	2.4%	-0.7%	1.6%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%
Qatar*	3.2%	4.4%	1.7%	0.5%	0.0%	0.1%	0.0%	0.0%	0.1%
South Africa*	-14.7%	-11.3%	6.9%	6.8%	-0.3%	0.0%	0.0%	0.0%	-0.2%
Turkey*	-23.7%	-25.9%	3.3%	1.0%	0.0%	-0.3%	-0.3%	0.1%	-0.5%
United Arab Emirates*	-1.7%	-3.0%	1.2%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Totals									
Americas	-11.8%	-17.6%	22.1%	12.4%	0.3%	-0.5%	-0.1%	0.2%	-0.1%
Europe	-8.7%	-7.2%	12.6%	5.6%	-0.2%	0.3%	-0.3%	-0.2%	-0.5%
Asia/Pacific	-6.2%	-5.7%	49.3%	72.9%	-0.1%	0.0%	0.4%	0.0%	0.3%
Other	-11.4%	-11.3%	15.8%	9.1%	-0.3%	0.2%	-0.3%	-0.2%	-0.6%
Cash	0.5%	--	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	-8.5%	-7.7%	100.0%	100.0%	-0.3%	0.0%	-0.3%	-0.2%	-0.8%
Totals									
Developed	-1.4%	--	8.7%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
Emerging*	-9.5%	-7.7%	89.5%	100.0%	-0.9%	0.0%	-0.3%	0.1%	-1.1%
Frontier**	2.4%	--	1.6%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Cash	0.5%	--	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Fixed Income
 Manager Allocation Analysis

Period Ending: June 30, 2018



	Actual \$	Actual %	Manager Contribution to Excess Return %
Angelo Gordon Opportunistic	\$8,364,000	0.9%	0.1%
Angelo Gordon STAR	\$7,115,000	0.8%	0.0%
Beach Point Select	\$49,950,983	5.6%	0.1%
BlackRock Intermediate Govt	\$214,832,349	24.0%	0.0%
Brigade Capital	\$77,316,071	8.6%	0.1%
FIAM Bond	\$260,132,045	29.1%	0.0%
Franklin Templeton	\$40,054,137	4.5%	-0.1%
PIMCO Diversified	\$79,776,722	8.9%	0.0%
TCP Direct Lending VIII	\$12,689,543	1.4%	0.0%
Western Asset TRU	\$128,491,710	14.4%	-0.5%
White Oak Yield	\$15,163,783	1.7%	0.0%
Actual vs. Policy Weight Difference			-0.1%
Total	\$893,886,343	100.0%	-0.2%

Statistics Summary

3 Years

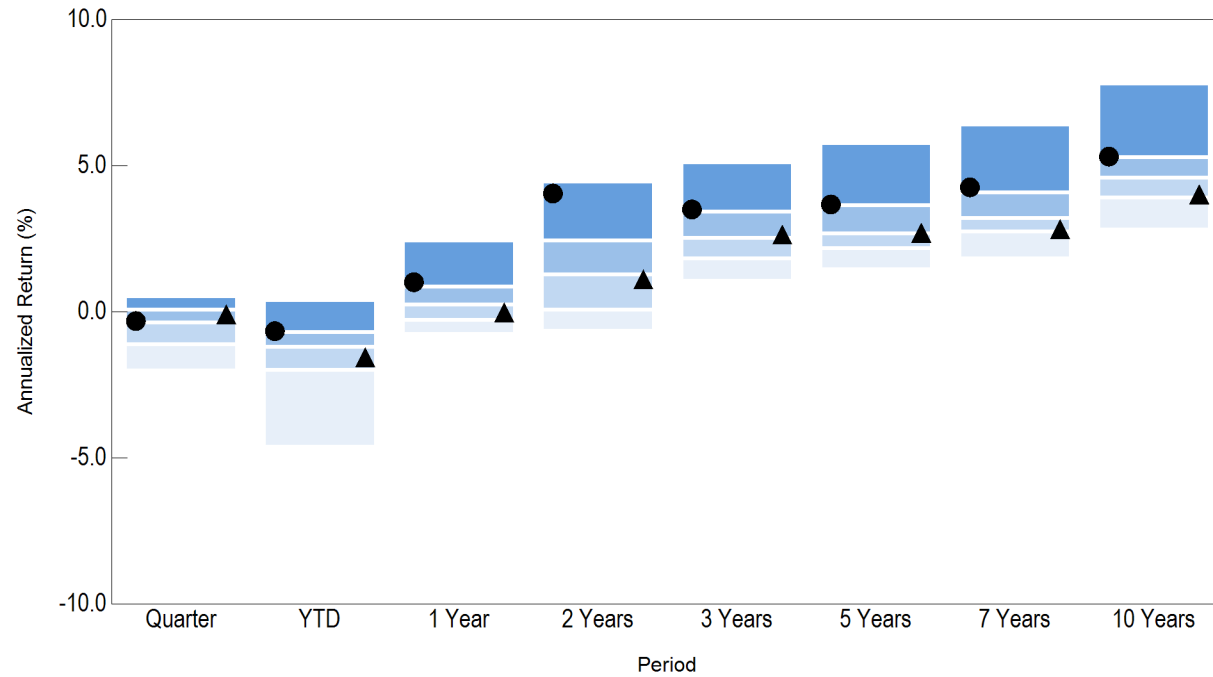
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Fixed Income	3.5%	2.8%	1.0	0.4	2.1%
Blended Fixed Income Index	2.6%	2.7%	0.7	--	0.0%
Core Fixed	2.5%	2.6%	0.7	0.4	1.8%
BBgBarc US Aggregate TR	1.7%	2.6%	0.4	--	0.0%
FIAM Bond	2.4%	2.8%	0.6	0.7	0.9%
BBgBarc US Aggregate TR	1.7%	2.6%	0.4	--	0.0%
Opportunistic Credit	6.3%	3.8%	1.5	0.7	2.9%
BBgBarc BA Intermediate HY	4.4%	4.2%	0.9	--	0.0%
Angelo Gordon Opportunistic	13.2%	8.7%	1.4	1.3	9.0%
BBgBarc US Aggregate TR	1.7%	2.6%	0.4	--	0.0%
Angelo Gordon STAR	12.1%	7.0%	1.6	1.4	7.5%
BBgBarc US Aggregate TR	1.7%	2.6%	0.4	--	0.0%
Beach Point Select	8.3%	3.8%	2.0	1.6	2.5%
BBgBarc BA Intermediate HY	4.4%	4.2%	0.9	--	0.0%
Brigade Capital	6.0%	7.0%	0.8	0.4	4.4%
BBgBarc BA Intermediate HY	4.4%	4.2%	0.9	--	0.0%
Franklin Templeton	1.5%	6.7%	0.1	-0.2	8.4%
BBgBarc Multiverse TR	2.8%	4.8%	0.4	--	0.0%

Statistics Summary

5 Years

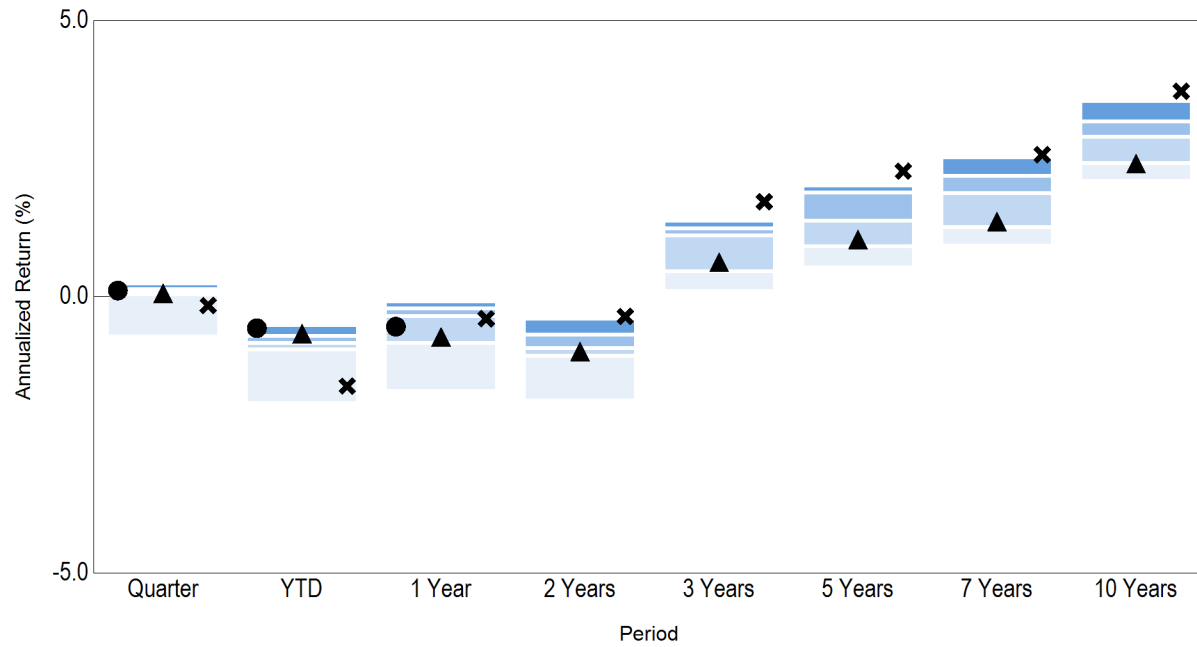
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Fixed Income	3.7%	2.7%	1.2	0.5	1.8%
Blended Fixed Income Index	2.7%	2.8%	0.8	--	0.0%
Core Fixed	3.0%	2.7%	0.9	0.5	1.4%
BBgBarc US Aggregate TR	2.3%	2.7%	0.7	--	0.0%
FIAM Bond	2.9%	2.8%	0.9	0.9	0.7%
BBgBarc US Aggregate TR	2.3%	2.7%	0.7	--	0.0%
Opportunistic Credit	6.7%	3.5%	1.8	0.7	3.4%
BBgBarc BA Intermediate HY	4.4%	4.1%	1.0	--	0.0%
Angelo Gordon STAR	12.5%	6.5%	1.8	1.4	7.3%
BBgBarc US Aggregate TR	2.3%	2.7%	0.7	--	0.0%
Brigade Capital	4.9%	6.0%	0.7	0.1	3.9%
BBgBarc BA Intermediate HY	4.4%	4.1%	1.0	--	0.0%
Franklin Templeton	1.9%	6.0%	0.2	0.0	7.1%
BBgBarc Multiverse TR	1.7%	4.5%	0.3	--	0.0%

InvestorForce All DB Total Fix Inc Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	0.5	0.4	2.4	4.5	5.1	5.8	6.4	7.8
25th Percentile	0.1	-0.7	0.9	2.4	3.4	3.7	4.1	5.3
Median	-0.3	-1.2	0.3	1.3	2.5	2.7	3.2	4.6
75th Percentile	-1.1	-2.0	-0.3	0.1	1.8	2.2	2.8	3.9
95th Percentile	-2.0	-4.6	-0.7	-0.6	1.1	1.5	1.8	2.8
# of Portfolios	301	301	297	291	285	264	231	188
● Fixed Income	-0.3 (50)	-0.7 (25)	1.0 (22)	4.0 (8)	3.5 (24)	3.7 (25)	4.3 (24)	5.3 (26)
▲ Blended Fixed Income Index	-0.1 (34)	-1.6 (66)	0.0 (62)	1.1 (54)	2.6 (47)	2.7 (51)	2.8 (71)	4.0 (71)

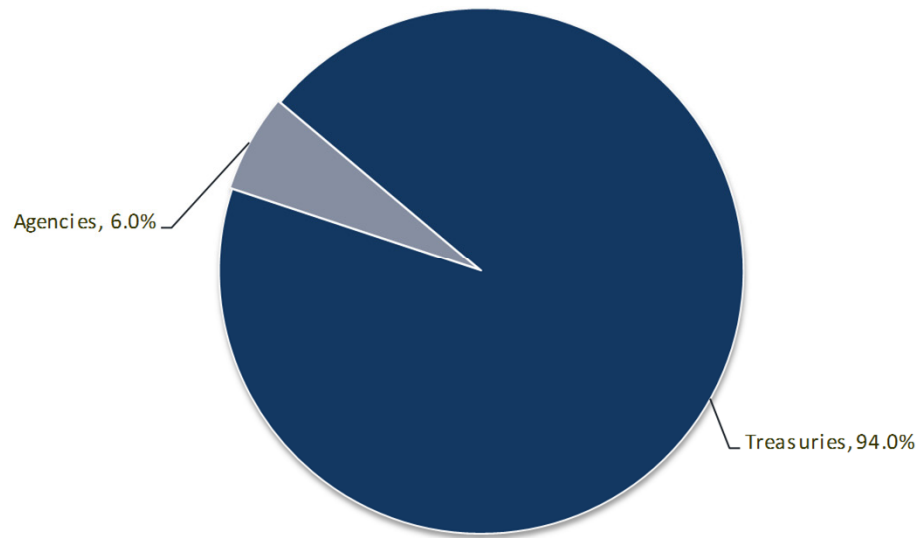
eV US Government Fixed Inc Net Return Comparison



	Quarter		YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	0.2	-0.5	-0.1	-0.4	1.4	2.0	2.5	3.5								
25th Percentile	0.1	-0.7	-0.2	-0.7	1.2	1.9	2.2	3.2								
Median	0.1	-0.8	-0.3	-0.9	1.1	1.4	1.9	2.9								
75th Percentile	0.1	-0.9	-0.8	-1.1	0.5	0.9	1.3	2.4								
95th Percentile	-0.7	-1.9	-1.7	-1.9	0.1	0.5	0.9	2.1								
# of Portfolios	11	11	11	11	11	11	11	11								
● BlackRock Intermediate Govt	0.1 (41)	-0.6 (8)	-0.5 (63)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)								
▲ BBgBarc US Govt Int TR	0.1 (62)	-0.7 (17)	-0.7 (69)	-1.0 (58)	0.6 (66)	1.0 (69)	1.4 (69)	2.4 (77)								
✕ BBgBarc US Aggregate TR	-0.2 (91)	-1.6 (93)	-0.4 (55)	-0.4 (3)	1.7 (1)	2.3 (1)	2.6 (4)	3.7 (1)								

BlackRock Intermediate Govt Market Duration Pool
 Bond Sector Allocation

Period Ending: June 30, 2018



Sector	Account Weight	BBgBarc Intermediate	
		Govt Weight	Difference
Treasuries	94.0%	95.8%	-1.8%
Agencies	6.0%	4.2%	1.8%
Corporates	0.0%	0.0%	0.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	0.0%	0.0%	0.0%
CMO	0.0%	0.0%	0.0%
ABS	0.0%	0.0%	0.0%
Municipals	0.0%	0.0%	0.0%
Others/Cash	0.0%	0.0%	0.0%
TOTAL	100.0%	100.0%	0.0%

BlackRock Intermediate Govt Market Duration Pool
 Bond Summary Statistics

Period Ending: June 30, 2018

Portfolio Characteristics		
	Portfolio	
Total Number of Securities		332
Total Market Value	\$	214,832,349
Current Coupon		2.13
Yield to Maturity		2.66
Average Life		4.01
Duration		3.73
Quality		AA+

BBgBarc Intermediate Govt	
	2.03
	2.66
	4.04
	3.76
	AA+

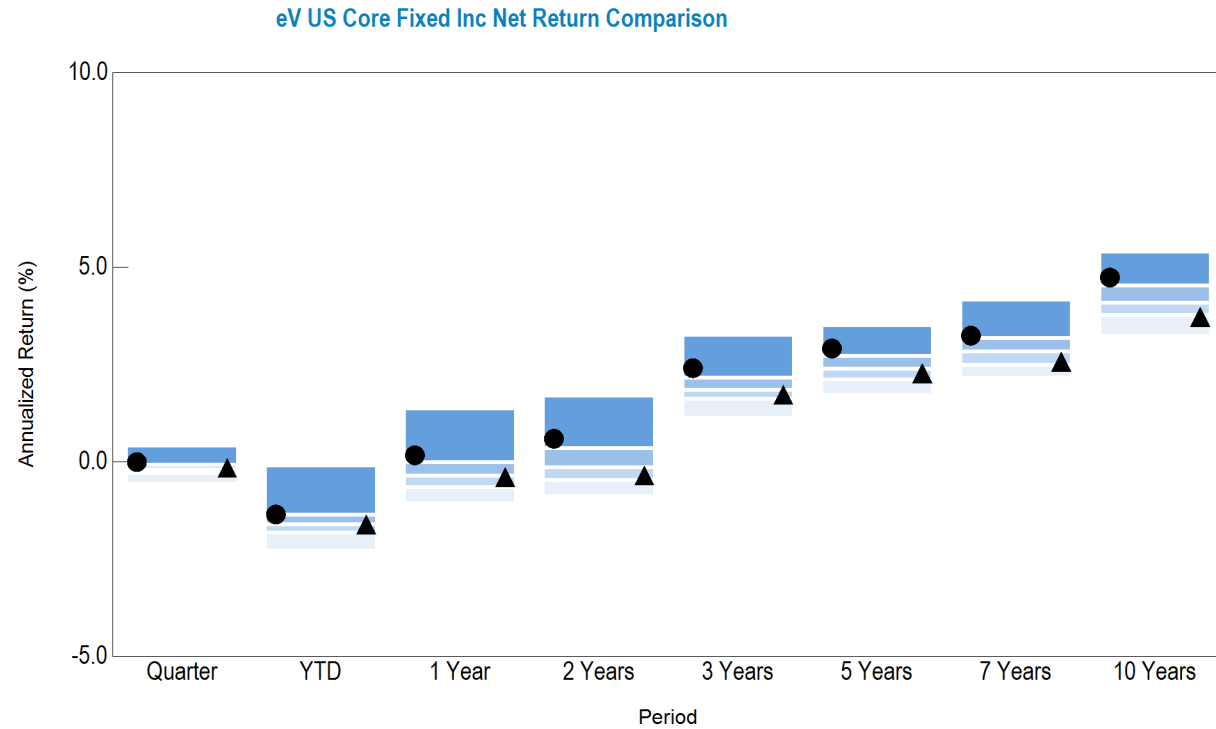
Yield to Maturity	
Range	% Held
0.0 - 5.0	100.0
5.0 - 7.0	0.0
7.0 - 9.0	0.0
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	n/a
1.0 - 3.0	n/a
3.0 - 5.0	n/a
5.0 - 10.0	n/a
10.0 - 20.0	n/a
20.0+	n/a
Unclassified	n/a

Duration	
Range	% Held
0.0 - 2.0	19.4
2.0 - 4.0	43.0
4.0 - 6.0	20.8
6.0 - 8.0	15.9
8.0+	0.9
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	0.0
Aaa (10)	99.0
Aa (9)	1.1
A (8)	0.0
Baa (7)	0.0
Below Baa (6-1)	0.0
Other	0.0

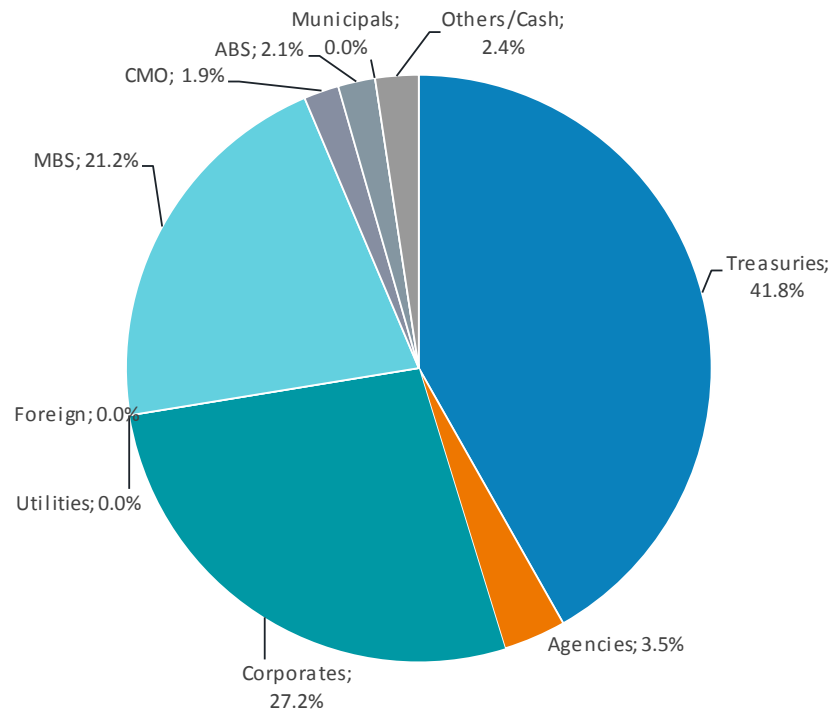
Coupon	
Range	% Held
0.0 - 5.0	100.0
5.0 - 7.0	0.0
7.0 - 9.0	0.0
9.0 - 10.0	0.0
10.0+	0.0
Unclassified	0.0



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	0.4	-0.1	1.4	1.7	3.3	3.5	4.2	5.4
25th Percentile	-0.1	-1.3	0.0	0.4	2.2	2.7	3.2	4.5
Median	-0.2	-1.6	-0.4	-0.1	1.9	2.4	2.8	4.1
75th Percentile	-0.3	-1.8	-0.6	-0.5	1.6	2.1	2.5	3.8
95th Percentile	-0.6	-2.3	-1.1	-0.9	1.1	1.7	2.2	3.2
# of Portfolios	145	144	142	138	136	134	127	114
● FIAM Bond	0.0 (17)	-1.4 (26)	0.2 (21)	0.6 (17)	2.4 (15)	2.9 (17)	3.2 (24)	4.7 (16)
▲ BBgBarc US Aggregate TR	-0.2 (42)	-1.6 (51)	-0.4 (57)	-0.4 (69)	1.7 (63)	2.3 (63)	2.6 (71)	3.7 (79)

FIAM Bond Market Duration Pool
Bond Sector Allocation

Period Ending: June 30, 2018



Sector	Account Weight	BBgBarc Aggregate	
		Weight	Difference
Treasuries	41.8%	37.4%	4.4%
Agencies	3.5%	6.8%	-3.3%
Corporates	27.2%	25.2%	2.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	21.2%	28.1%	-7.0%
CMO	1.9%	0.0%	1.9%
ABS	2.1%	2.4%	-0.4%
Municipals	0.0%	0.0%	0.0%
Others/Cash	2.4%	0.0%	2.4%
TOTAL	100.0%	100.0%	0.0%

FIAM Bond Market Duration Pool
Bond Summary Statistics

Period Ending: June 30, 2018

Portfolio Characteristics		
		Portfolio
Total Number of Securities		865
Total Market Value	\$	260,132,045
Current Coupon		3.07
Yield to Maturity		3.51
Average Life		8.92
Duration		6.20
Quality		AA

BBgBarc Aggregate	
	3.16
	3.28
	8.11
	5.95
	AA

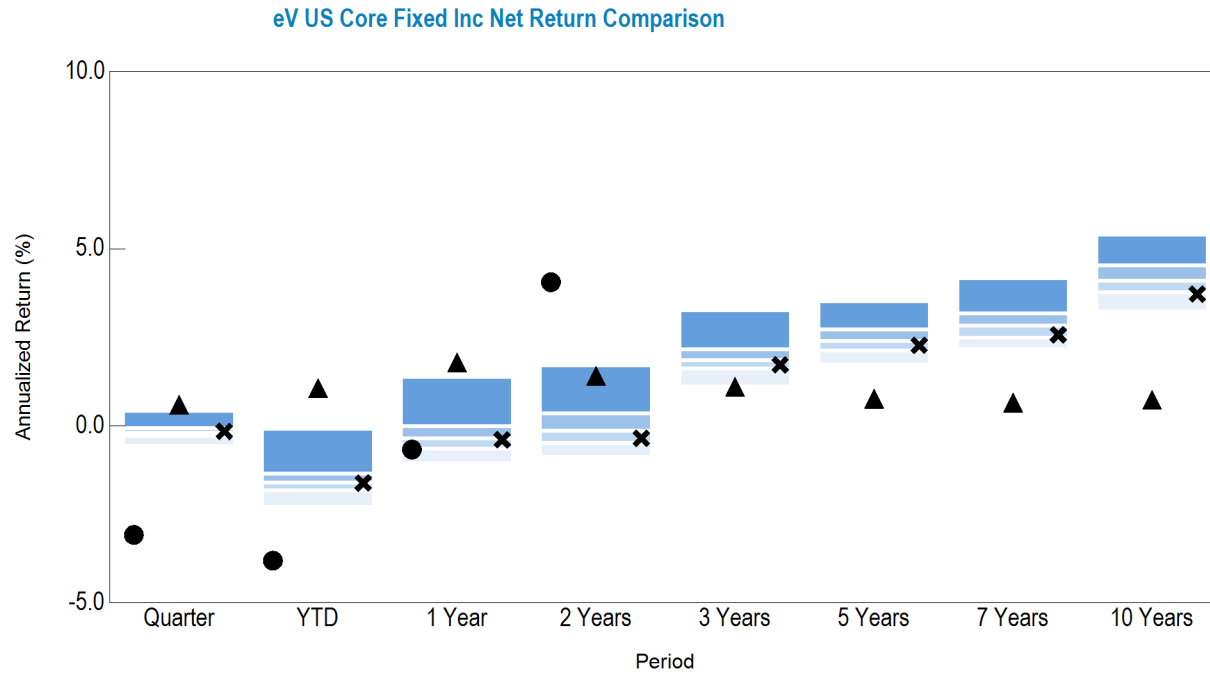
Yield to Maturity	
Range	% Held
0.0 - 5.0	101.0
5.0 - 7.0	5.1
7.0 - 9.0	1.0
9.0 - 11.0	0.1
11.0 - 13.0	0.0
13.0+	-7.1
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	1.5
1.0 - 3.0	10.9
3.0 - 5.0	26.9
5.0 - 10.0	48.4
10.0 - 20.0	3.1
20.0+	9.3
Unclassified	0.0

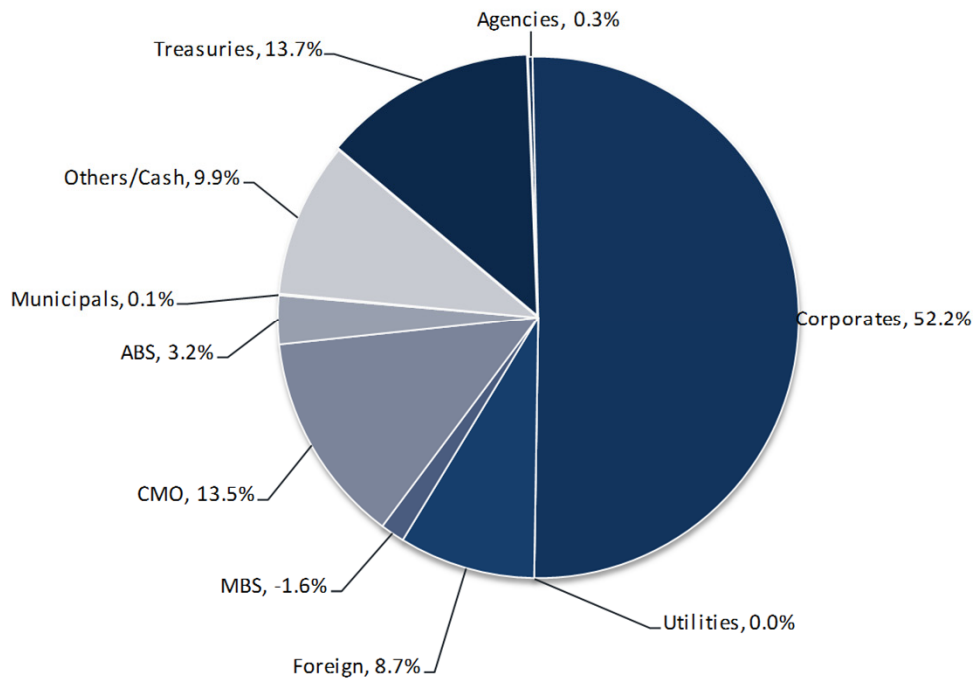
Duration	
Range	% Held
0.0 - 1.0	1.5
1.0 - 3.0	10.1
3.0 - 5.0	41.9
5.0 - 7.0	29.2
7.0 - 10.0	4.9
10.0+	12.4
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	70.4
Aaa (10)	0.7
Aa (9)	1.5
A (8)	12.3
Baa (7)	17.8
Below Baa (6-1)	1.2
Other	-3.9

Coupon	
Range	% Held
0.0 - 5.0	85.4
5.0 - 7.0	7.9
7.0 - 9.0	1.4
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	5.3
Unclassified	0.0



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	0.4	-0.1	1.4	1.7	3.3	3.5	4.2	5.4
25th Percentile	-0.1	-1.3	0.0	0.4	2.2	2.7	3.2	4.5
Median	-0.2	-1.6	-0.4	-0.1	1.9	2.4	2.8	4.1
75th Percentile	-0.3	-1.8	-0.6	-0.5	1.6	2.1	2.5	3.8
95th Percentile	-0.6	-2.3	-1.1	-0.9	1.1	1.7	2.2	3.2
# of Portfolios	145	144	142	138	136	134	127	114
● Western TRU	-3.1 (99)	-3.8 (99)	-0.7 (80)	4.1 (1)	-- (--)	-- (--)	-- (--)	-- (--)
▲ 3-Month Libor Total Return USD	0.6 (2)	1.1 (1)	1.8 (2)	1.4 (7)	1.1 (96)	0.8 (99)	0.7 (99)	0.7 (99)
✕ BBgBarc US Aggregate TR	-0.2 (42)	-1.6 (51)	-0.4 (57)	-0.4 (69)	1.7 (63)	2.3 (63)	2.6 (71)	3.7 (79)



Sector	Account Weight	BBgBarc Aggregate	
		Weight	Difference
Treasuries	13.7%	37.4%	-23.7%
Agencies	0.3%	6.8%	-6.5%
Corporates	52.2%	25.2%	27.0%
Utilities	0.0%	0.0%	0.0%
Foreign	8.7%	0.0%	8.7%
MBS	-1.6%	28.1%	-29.8%
CMO	13.5%	0.0%	13.5%
ABS	3.2%	2.4%	0.7%
Municipals	0.1%	0.0%	0.1%
Others/Cash	9.9%	0.0%	9.9%
TOTAL	100.0%	100.0%	0.0%

Portfolio Characteristics		Portfolio	BBgBarc Aggregate
Total Number of Securities		5,474	
Total Market Value	\$	128,491,710	
Current Coupon		4.69	3.16
Yield to Maturity		5.32	3.28
Average Life		6.64	8.11
Duration		3.65	5.95
Quality		A-	AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	50.7
5.0 - 7.0	27.1
7.0 - 9.0	16.2
9.0 - 11.0	5.1
11.0 - 13.0	0.3
13.0+	-0.6
Unclassified	1.2

Average Life	
Range	% Held
0.0 - 1.0	19.8
1.0 - 3.0	23.0
3.0 - 5.0	18.7
5.0 - 10.0	19.7
10.0 - 20.0	8.0
20.0+	10.9
Unclassified	0.0

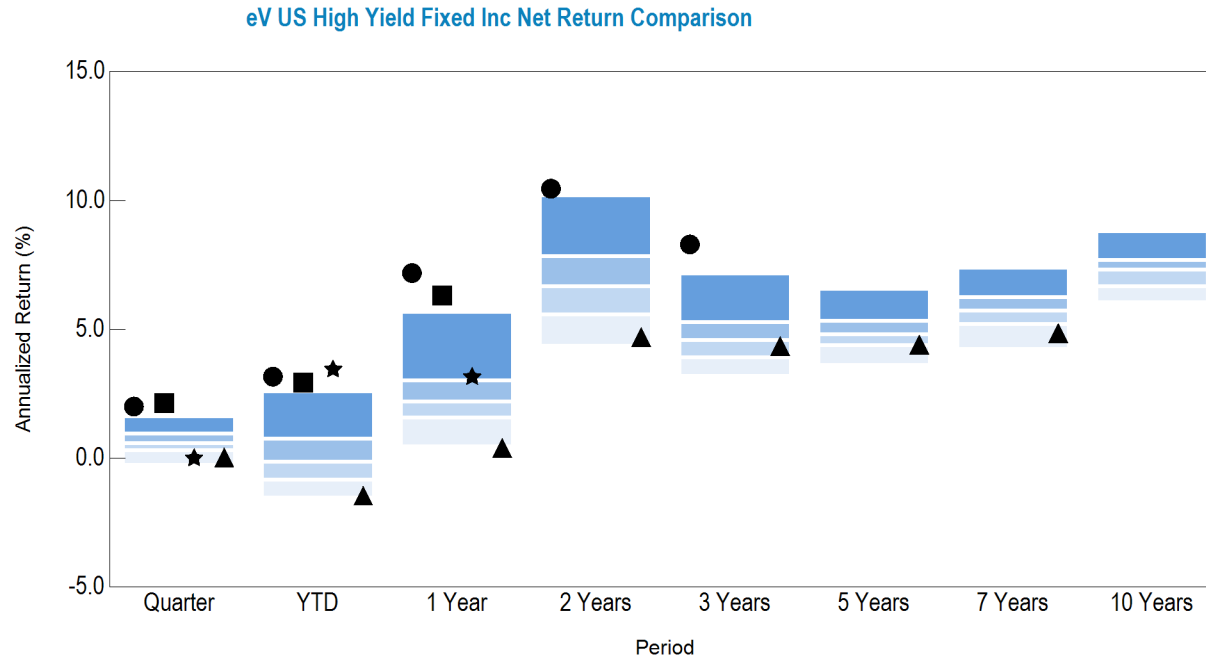
Duration	
Range	% Held
< 1.0	39.1
1.0 - 3.0	17.9
3.0 - 5.0	18.4
5.0 - 7.0	10.5
7.0 - 10.0	3.5
10.0+	10.5
Unclassified	0.0

*Unclassified includes negative YTM

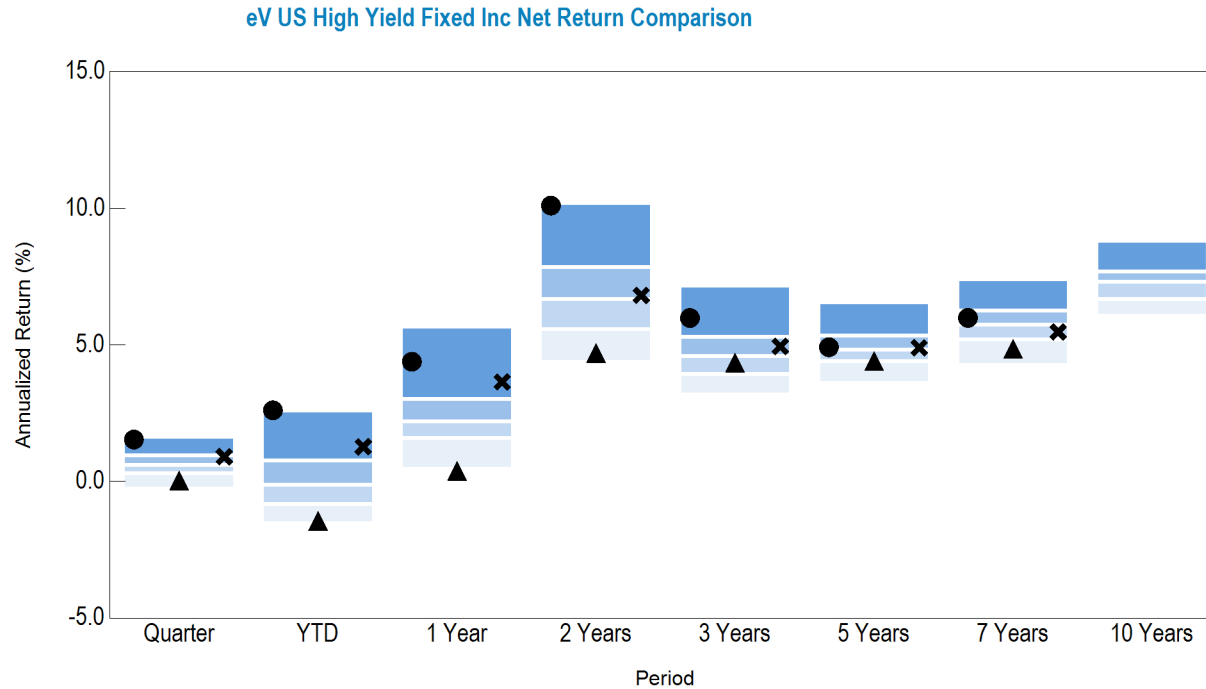
Quality	
Range	% Held
Govt* (10)	5.2
Aaa (10)	16.2
Aa (9)	3.4
A (8)	11.6
Baa (7)	12.8
Below Baa (6-1)	46.2
Other	4.7

Coupon	
Range	% Held
0.0 - 5.0	49.6
5.0 - 7.0	27.0
7.0 - 9.0	8.8
9.0 - 10.0	9.5
10.0+	5.2
Unclassified	0.0

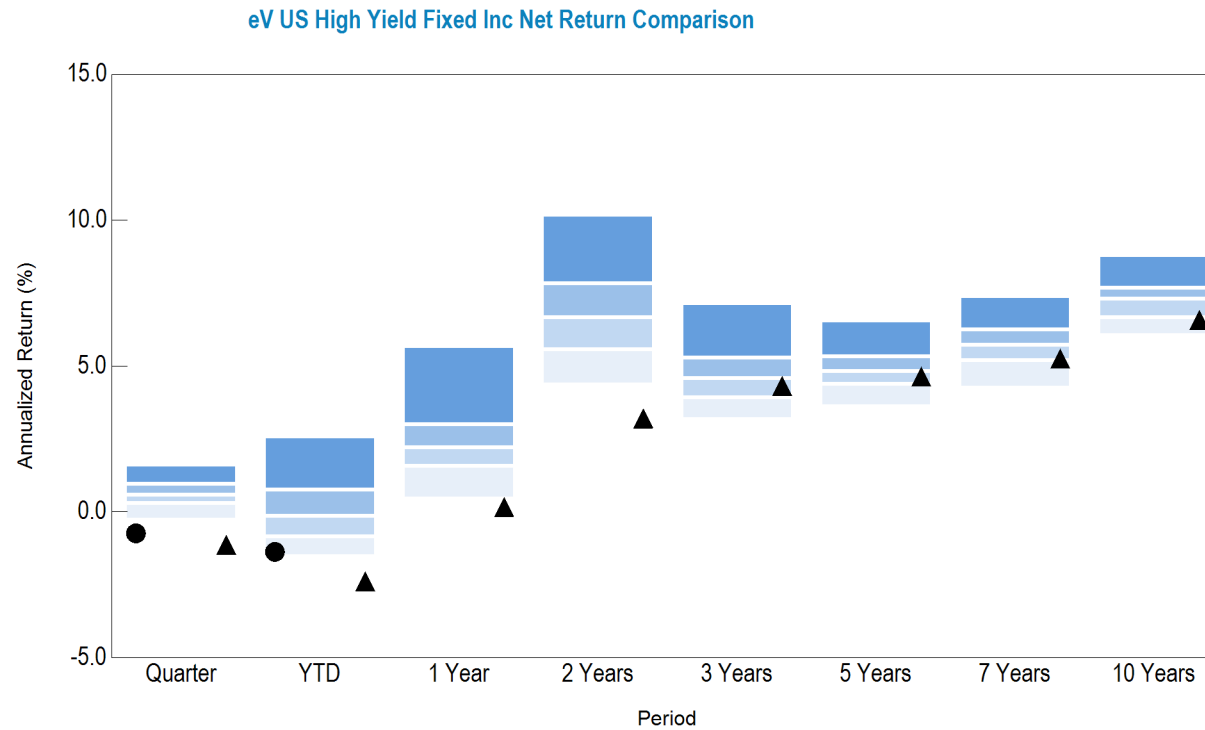
*Govt is specifically U.S Govt securities



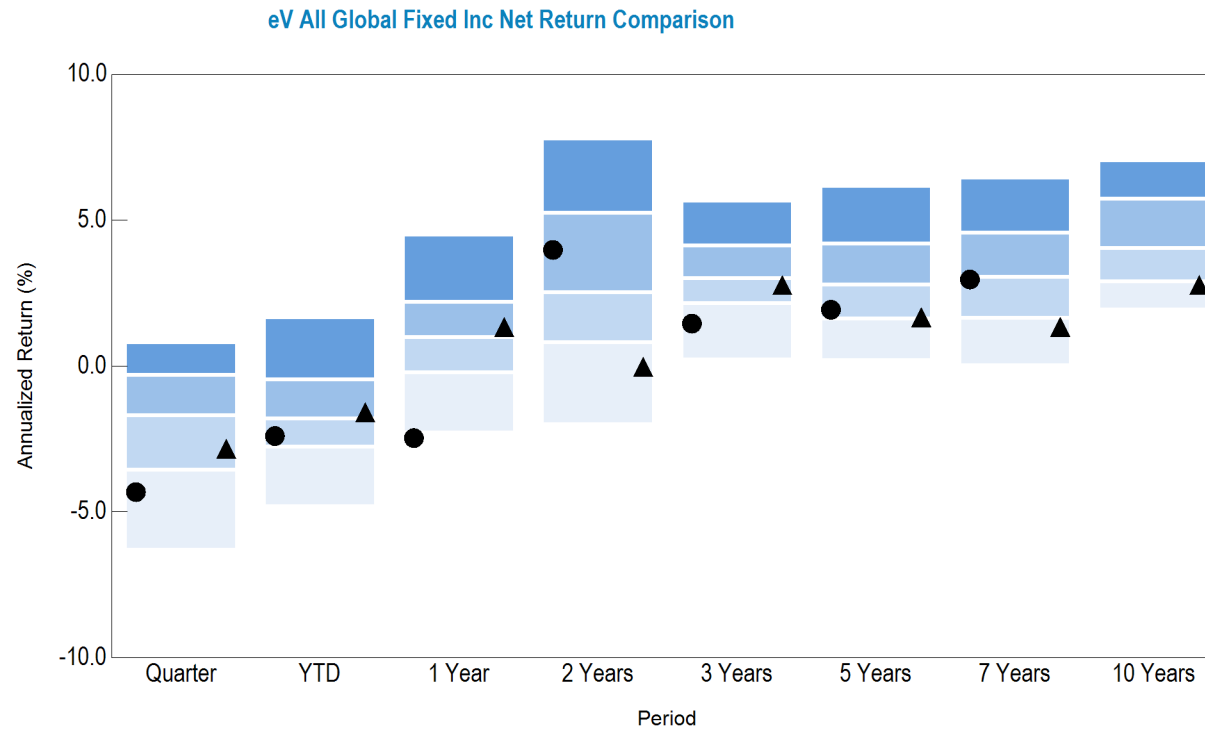
	Quarter		YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
Return (Rank)	1.6	2.6	5.7	10.2	7.2	6.6	7.4	8.8	1.0	0.8	3.0	7.9	5.3	5.4	6.3	7.7
5th Percentile	0.6	-0.1	2.2	6.7	4.6	4.8	5.8	7.3	0.3	-0.8	1.6	5.6	3.9	4.4	5.2	6.7
25th Percentile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Median	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75th Percentile	-0.2	-1.5	0.5	4.4	3.2	3.6	4.3	6.1	-0.2	-1.5	0.5	4.4	3.2	3.6	4.3	6.1
95th Percentile	133	131	130	127	124	105	92	71	133	131	130	127	124	105	92	71
# of Portfolios	2.0 (3)	3.2 (3)	7.2 (4)	10.5 (5)	8.3 (1)	-- (--)	-- (--)	-- (--)	2.2 (3)	2.9 (4)	6.3 (4)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)
● Beach Point Select	0.0 (92)	3.4 (3)	3.2 (24)	-- (--)	-- (--)	-- (--)	-- (--)	-- (--)	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)
■ TCP Direct Lending VIII	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)
★ White Oak Yield	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)
▲ BBgBarc BA Intermediate HY	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	1.6	2.6	5.7	10.2	7.2	6.6	7.4	8.8
25th Percentile	1.0	0.8	3.0	7.9	5.3	5.4	6.3	7.7
Median	0.6	-0.1	2.2	6.7	4.6	4.8	5.8	7.3
75th Percentile	0.3	-0.8	1.6	5.6	3.9	4.4	5.2	6.7
95th Percentile	-0.2	-1.5	0.5	4.4	3.2	3.6	4.3	6.1
# of Portfolios	133	131	130	127	124	105	92	71
● Brigade Capital	1.5 (7)	2.6 (5)	4.4 (14)	10.1 (6)	6.0 (12)	4.9 (45)	6.0 (36)	-- (--)
▲ BBgBarc BA Intermediate HY	0.0 (91)	-1.5 (95)	0.4 (97)	4.7 (91)	4.4 (60)	4.4 (76)	4.9 (89)	-- (--)
✕ 50% Barclays HY/ 50% Bank Loan	0.9 (29)	1.3 (16)	3.6 (20)	6.8 (47)	4.9 (37)	4.9 (46)	5.5 (65)	-- (--)



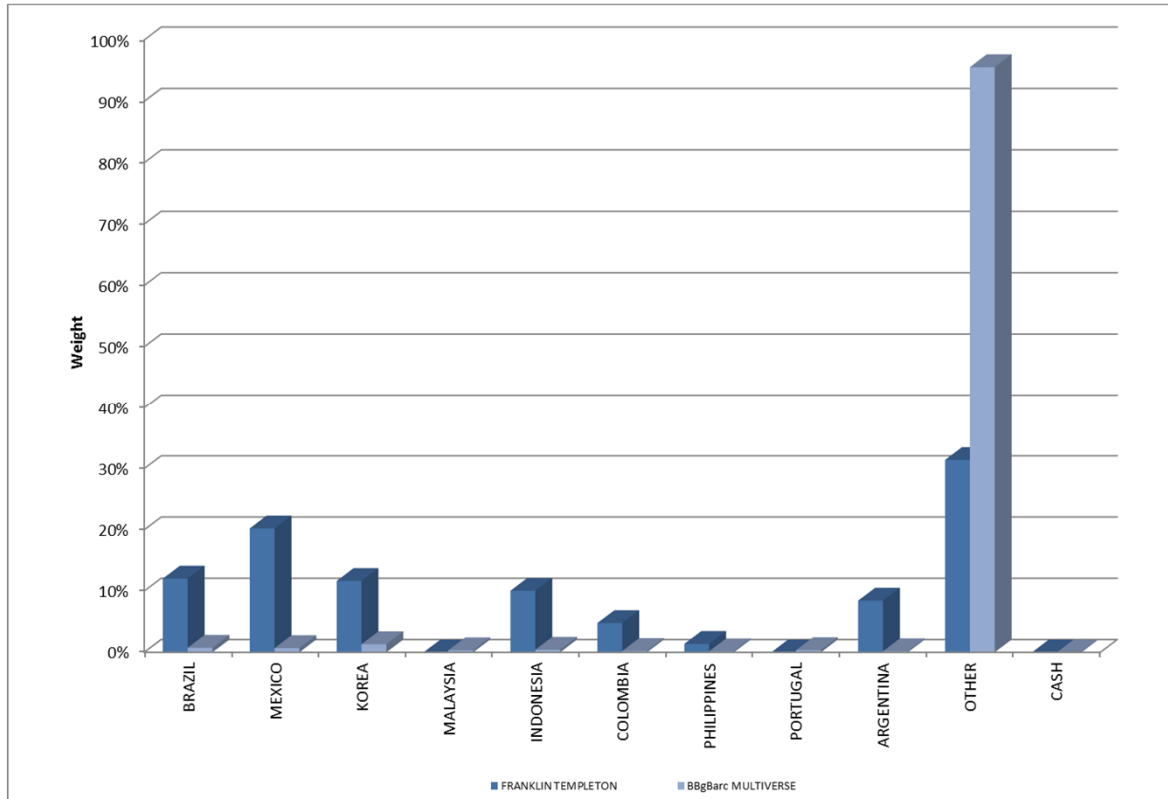
	Return (Rank)															
	Quarter		YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	1.6	2.6	5.7	10.2	7.2	6.6	7.4	8.8								
25th Percentile	1.0	0.8	3.0	7.9	5.3	5.4	6.3	7.7								
Median	0.6	-0.1	2.2	6.7	4.6	4.8	5.8	7.3								
75th Percentile	0.3	-0.8	1.6	5.6	3.9	4.4	5.2	6.7								
95th Percentile	-0.2	-1.5	0.5	4.4	3.2	3.6	4.3	6.1								
# of Portfolios	133	131	130	127	124	105	92	71								
● PIMCO Diversified	-0.7	(99)	-1.4	(93)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)
▲ Blended PIMCO Diversified Index	-1.1	(99)	-2.4	(99)	0.2	(99)	3.2	(99)	4.3	(61)	4.6	(63)	5.3	(73)	6.6	(80)



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	0.8	1.7	4.5	7.8	5.7	6.2	6.5	7.1
25th Percentile	-0.3	-0.4	2.2	5.3	4.1	4.2	4.6	5.7
Median	-1.7	-1.8	1.0	2.5	3.0	2.8	3.1	4.1
75th Percentile	-3.5	-2.7	-0.2	0.8	2.2	1.6	1.7	2.9
95th Percentile	-6.3	-4.8	-2.3	-2.0	0.2	0.2	0.0	1.9
# of Portfolios	228	227	227	220	208	190	148	102
● Franklin Templeton	-4.3 (86)	-2.4 (69)	-2.5 (96)	4.0 (37)	1.5 (88)	1.9 (70)	3.0 (53)	-- (--)
▲ BBgBarc Multiverse TR	-2.8 (65)	-1.6 (45)	1.3 (42)	0.0 (85)	2.8 (57)	1.7 (75)	1.3 (78)	2.8 (78)

Franklin Templeton
Portfolio Country Weights

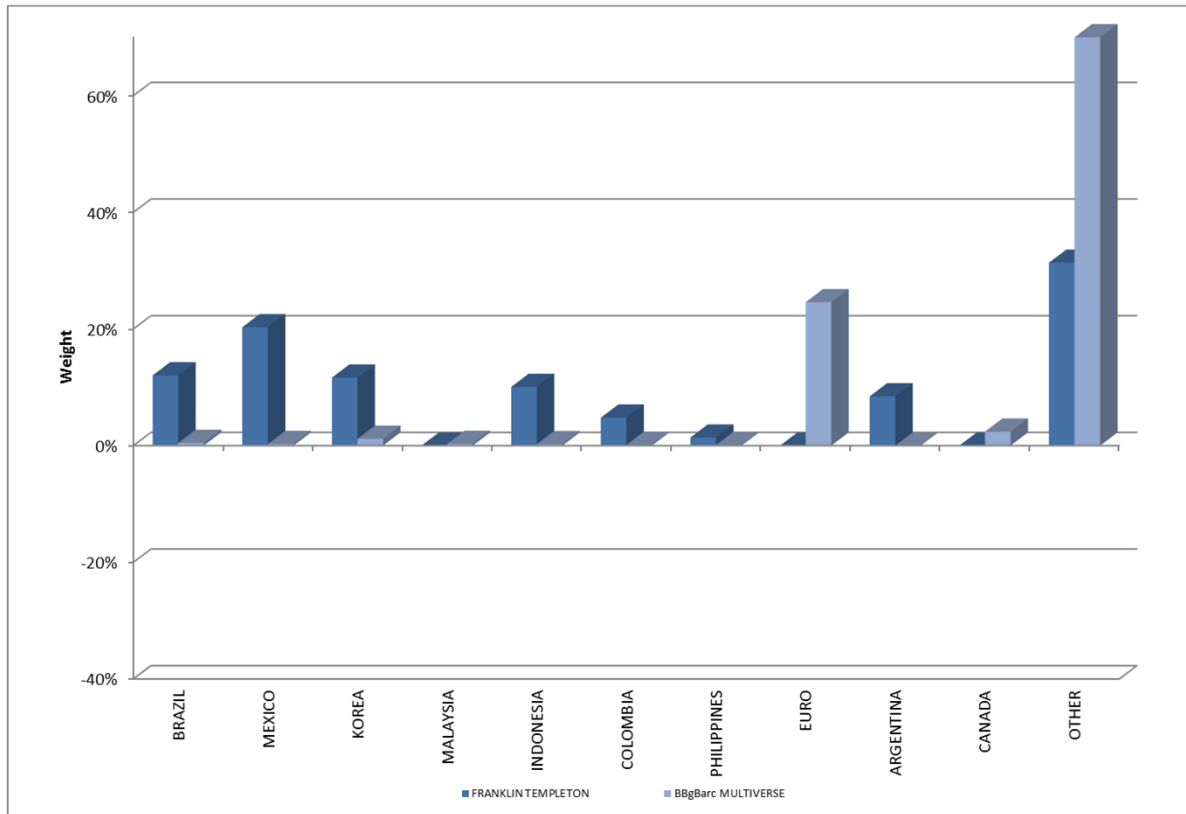
Period Ending: June 30, 2018



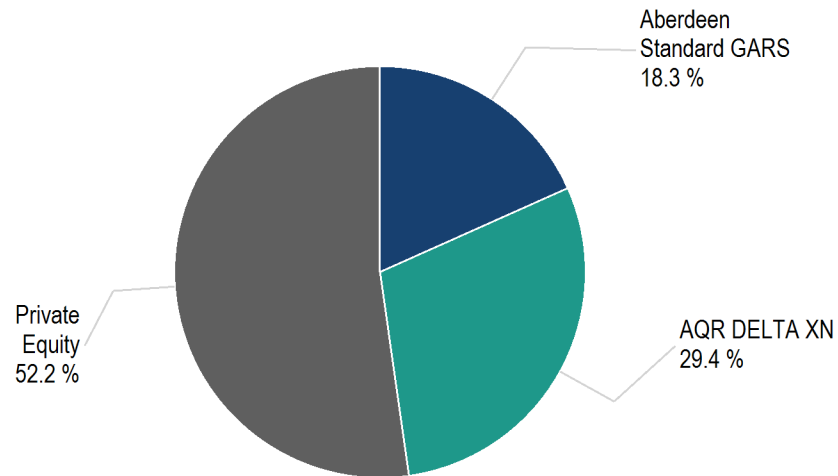
COUNTRY	MARKET VALUE	FRANKLIN TEMPLETON	BBgBarc MULTIVERSE	DIFF
BRAZIL	\$ 4,822	12.0%	0.7%	+11.3%
MEXICO	\$ 8,104	20.2%	0.7%	+19.5%
KOREA	\$ 4,670	11.7%	1.3%	+10.3%
MALAYSIA	\$ -	0.0%	0.3%	-0.3%
INDONESIA	\$ 4,029	10.1%	0.4%	+9.6%
COLOMBIA	\$ 1,915	4.8%	0.2%	+4.6%
PHILIPPINES	\$ 550	1.4%	0.2%	+1.2%
PORTUGAL	\$ -	0.0%	0.4%	-0.4%
ARGENTINA	\$ 3,381	8.4%	0.2%	+8.3%
OTHER	\$ 12,583	31.4%	95.6%	-64.2%
CASH	\$ -	0.0%	0.0%	0.0%
	\$ 40,054	100.0%	100.0%	0.0%

Franklin Templeton
Portfolio Currency Exposures

Period Ending: June 30, 2018



CURRENCY	MARKET VALUE	FRANKLIN TEMPLETON	BBgBarc MULTIVERSE	DIFF
BRAZIL	\$ 4,822	12.0%	0.5%	+11.6%
MEXICO	\$ 8,130	20.3%	0.3%	+20.0%
KOREA	\$ 4,668	11.7%	1.2%	+10.5%
MALAYSIA	\$ -	0.0%	0.3%	-0.3%
INDONESIA	\$ 4,029	10.1%	0.2%	+9.8%
COLOMBIA	\$ 1,915	4.8%	0.1%	+4.7%
PHILIPPINES	\$ 550	1.4%	0.1%	+1.3%
EURO	\$ 1	0.0%	24.6%	-24.6%
ARGENTINA	\$ 3,381	8.4%	0.0%	+8.4%
CANADA	\$ -	0.0%	2.4%	-2.4%
OTHER	\$ 12,558	31.4%	70.4%	-39.0%
	\$ 40,054	100.0%	100.0%	0.0%



	Actual \$	Actual %	Manager Contribution to Excess Return %
Aberdeen Standard GARS	\$93,153,328	18.3%	-0.7%
AQR DELTA XN	\$149,334,452	29.4%	-2.4%
Private Equity	\$265,216,316	52.2%	1.0%
Actual vs. Policy Weight Difference			0.0%
Total	\$507,704,096	100.0%	-2.1%

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Alternatives	6.1%	5.2%	1.0	-0.3	6.0%
Blended Alternatives Index	7.7%	5.7%	1.2	--	0.0%
Private Equity	13.5%	8.4%	1.5	0.0	11.8%
Blended Private Equity Index	13.2%	10.7%	1.2	--	0.0%
Hedge Fund/Absolute Return	2.5%	4.7%	0.4	-0.5	4.8%
Libor 1 month +4%	4.9%	0.2%	23.0	--	0.0%
AQR DELTA XN	2.3%	5.7%	0.3	-0.5	5.8%
Libor 1 month +4%	4.9%	0.2%	23.0	--	0.0%

Statistics Summary

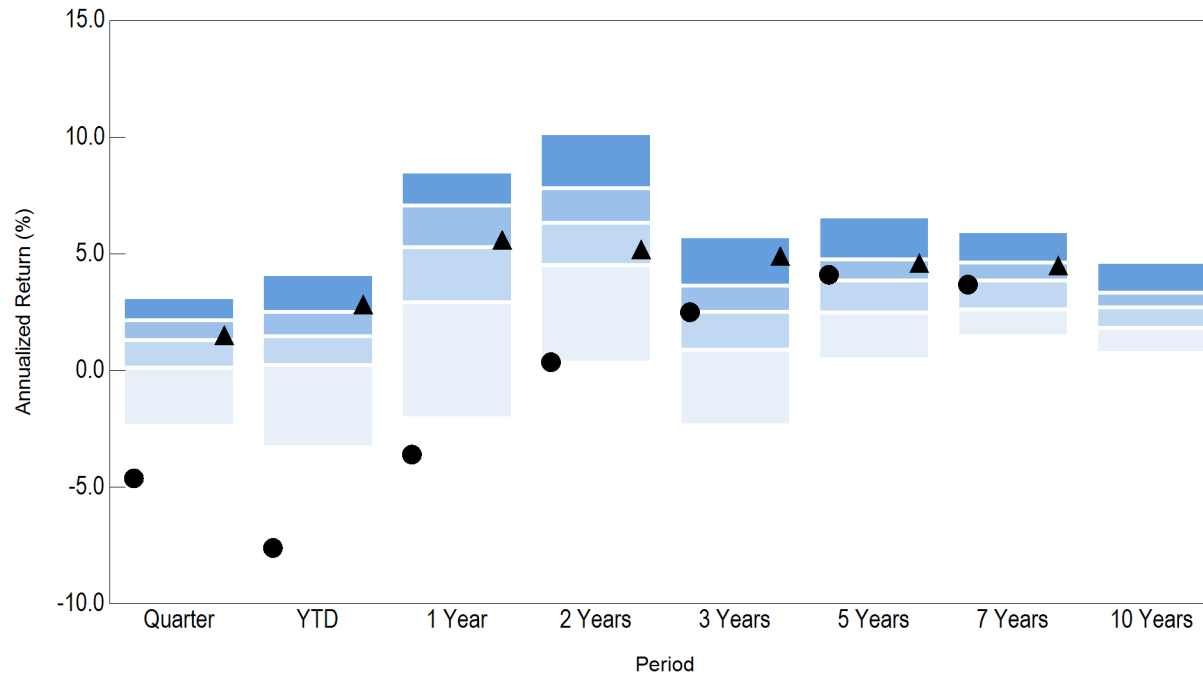
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Alternatives	7.0%	4.9%	1.3	-0.2	6.1%
Blended Alternatives Index	8.2%	5.7%	1.4	--	0.0%
Private Equity	16.9%	9.3%	1.8	0.1	12.9%
Blended Private Equity Index	15.5%	10.2%	1.5	--	0.0%
Hedge Fund/Absolute Return	4.1%	5.0%	0.7	-0.1	5.1%
Libor 1 month +4%	4.6%	0.2%	23.1	--	0.0%
AQR DELTA XN	4.0%	5.6%	0.6	-0.1	5.7%
Libor 1 month +4%	4.6%	0.2%	23.1	--	0.0%

Hedge Fund/Absolute Return
Peer Universe Comparison

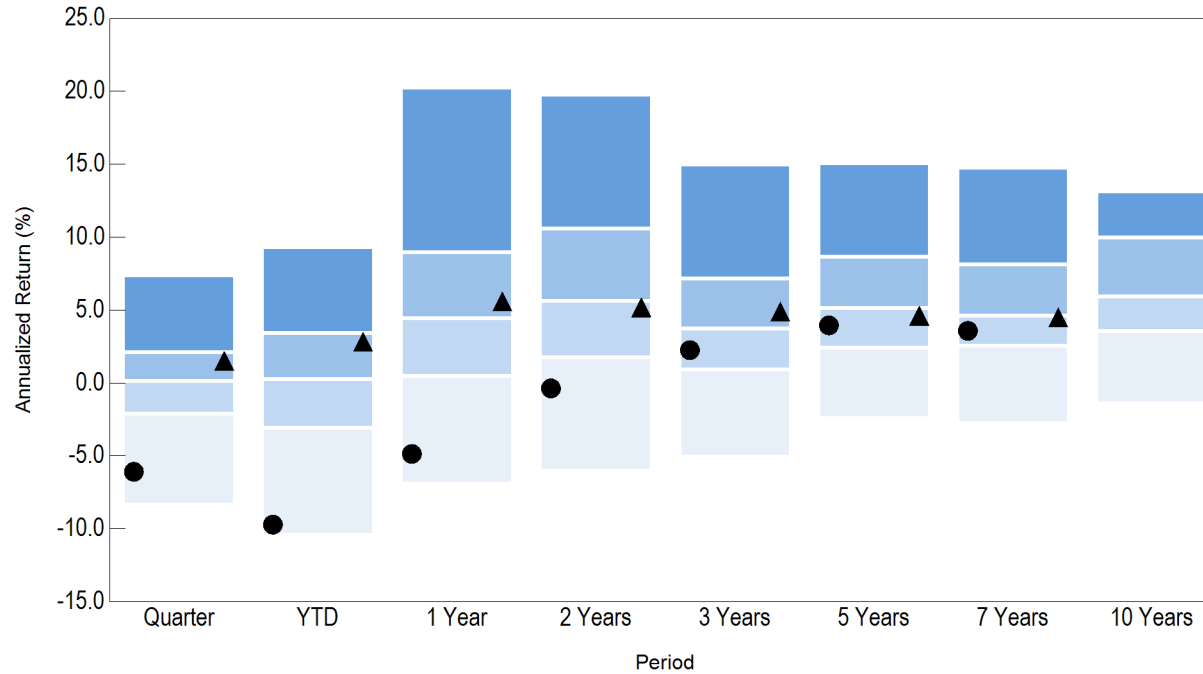
Period Ending: June 30, 2018

InvestorForce All DB Hedge Funds Net Return Comparison

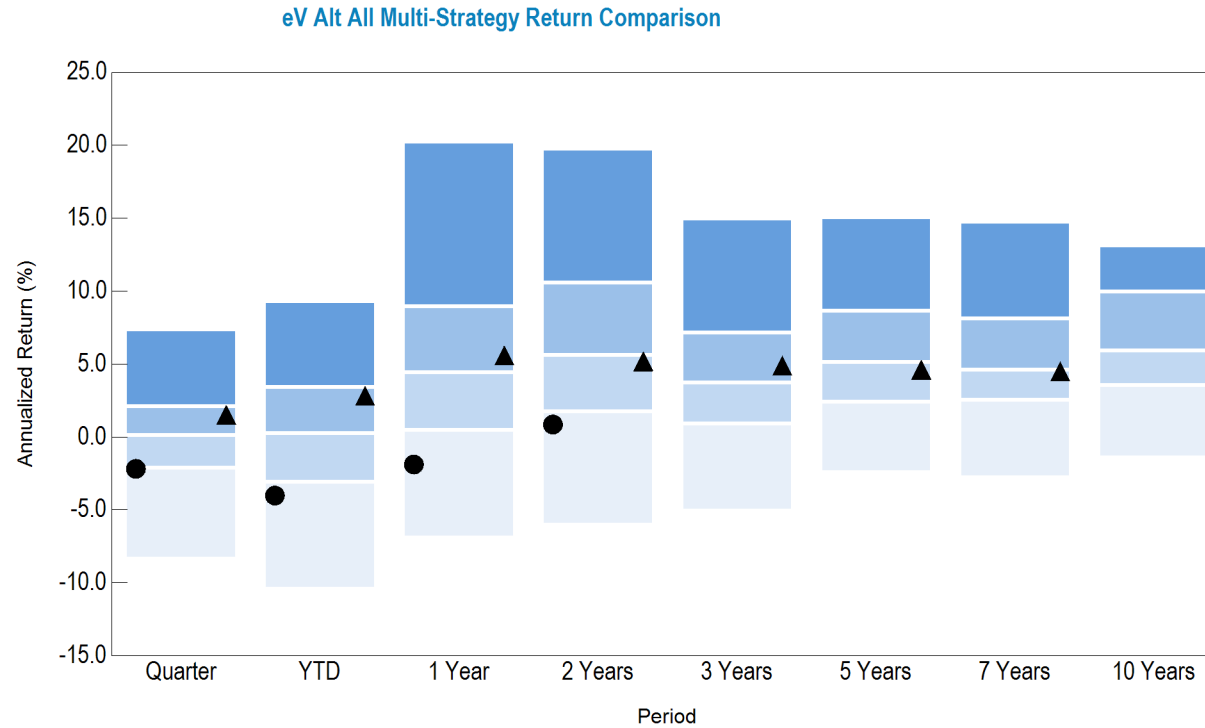


	Return (Rank)							
5th Percentile	3.1	4.1	8.5	10.2	5.7	6.6	6.0	4.6
25th Percentile	2.2	2.5	7.1	7.8	3.6	4.8	4.6	3.3
Median	1.3	1.5	5.3	6.3	2.5	3.9	3.9	2.7
75th Percentile	0.1	0.2	2.9	4.5	0.9	2.5	2.6	1.8
95th Percentile	-2.4	-3.3	-2.0	0.4	-2.3	0.5	1.5	0.8
# of Portfolios	222	221	221	215	207	194	166	96
● Hedge Fund/Absolute Return	-4.6 (98)	-7.6 (99)	-3.6 (97)	0.4 (96)	2.5 (51)	4.1 (46)	3.7 (56)	-- (--)
▲ Libor 1 month +4%	1.5 (39)	2.8 (21)	5.6 (48)	5.2 (67)	4.9 (11)	4.6 (32)	4.5 (30)	-- (--)

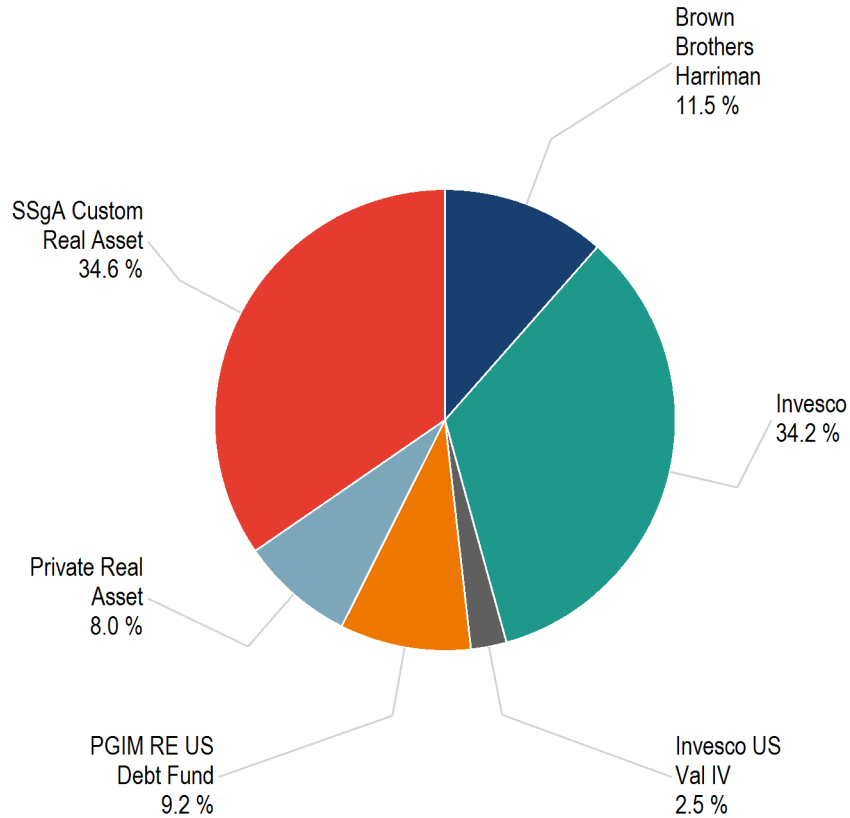
eV Alt All Multi-Strategy Return Comparison



	Return (Rank)							
5th Percentile	7.4	9.3	20.3	19.8	14.9	15.0	14.8	13.1
25th Percentile	2.1	3.5	9.0	10.6	7.2	8.7	8.1	10.0
Median	0.1	0.3	4.5	5.7	3.7	5.2	4.7	6.0
75th Percentile	-2.1	-3.0	0.5	1.8	1.0	2.4	2.6	3.6
95th Percentile	-8.3	-10.4	-6.9	-6.0	-5.0	-2.4	-2.8	-1.4
# of Portfolios	306	305	296	274	255	206	166	106
● AQR DELTA XN	-6.1 (92)	-9.7 (94)	-4.9 (92)	-0.4 (83)	2.3 (61)	4.0 (61)	3.6 (63)	-- (--)
▲ Libor 1 month +4%	1.5 (32)	2.8 (30)	5.6 (43)	5.2 (54)	4.9 (43)	4.6 (55)	4.5 (54)	-- (--)



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	7.4	9.3	20.3	19.8	14.9	15.0	14.8	13.1
25th Percentile	2.1	3.5	9.0	10.6	7.2	8.7	8.1	10.0
Median	0.1	0.3	4.5	5.7	3.7	5.2	4.7	6.0
75th Percentile	-2.1	-3.0	0.5	1.8	1.0	2.4	2.6	3.6
95th Percentile	-8.3	-10.4	-6.9	-6.0	-5.0	-2.4	-2.8	-1.4
# of Portfolios	306	305	296	274	255	206	166	106
● Aberdeen Standard GARS	-2.2 (76)	-4.0 (78)	-1.9 (87)	0.9 (80)	-- (--)	-- (--)	-- (--)	-- (--)
▲ Libor 1 month +4%	1.5 (32)	2.8 (30)	5.6 (43)	5.2 (54)	4.9 (43)	4.6 (55)	4.5 (54)	-- (--)



	Actual \$	Actual %	Manager Contribution to Excess Return %
Brown Brother Harriman	\$87,884,436	11.5%	0.0%
Invesco	\$260,104,438	34.2%	-0.1%
Invesco US Val IV	\$19,365,633	2.5%	0.0%
PGIM RE US Debt Fund	\$70,010,942	9.2%	-0.1%
Private Real Asset	\$60,923,620	8.0%	0.4%
SSgA Custom Real Asset	\$263,283,878	34.6%	0.1%
Actual vs. Policy Weight Difference			0.2%
Total	\$761,572,946	100.0%	0.5%

Statistics Summary

3 Years

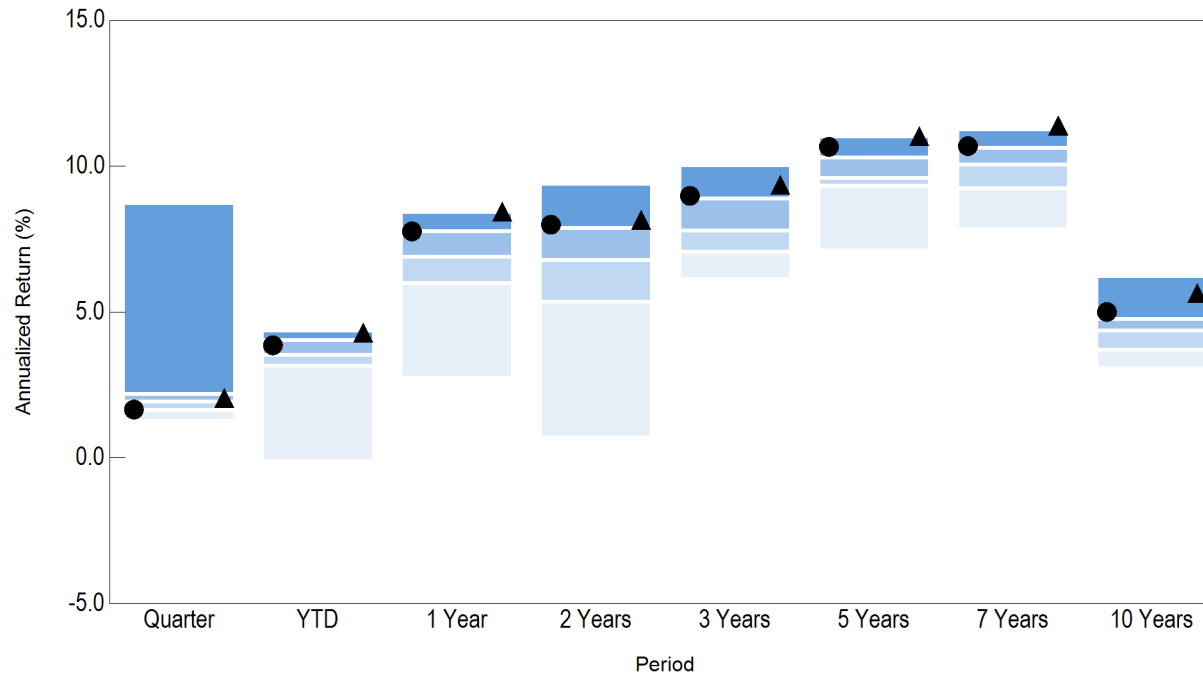
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Real Estate	8.98%	3.83%	2.16	-0.31	1.21%
NCREIF ODCE	9.36%	3.93%	2.20	--	0.00%
Invesco	8.91%	3.80%	2.16	-0.34	1.30%
NCREIF ODCE	9.36%	3.93%	2.20	--	0.00%
Private Real Asset	10.18%	26.88%	0.35	0.21	27.38%
Blended Private Real Asset Index	4.43%	6.42%	0.58	--	0.00%
TIPS	1.84%	2.20%	0.52	-0.07	1.20%
BBgBarc US TIPS TR	1.93%	2.95%	0.42	--	0.00%
Brown Brothers Harriman	1.84%	2.20%	0.52	-0.07	1.20%
BBgBarc US TIPS TR	1.93%	2.95%	0.42	--	0.00%

Statistics Summary

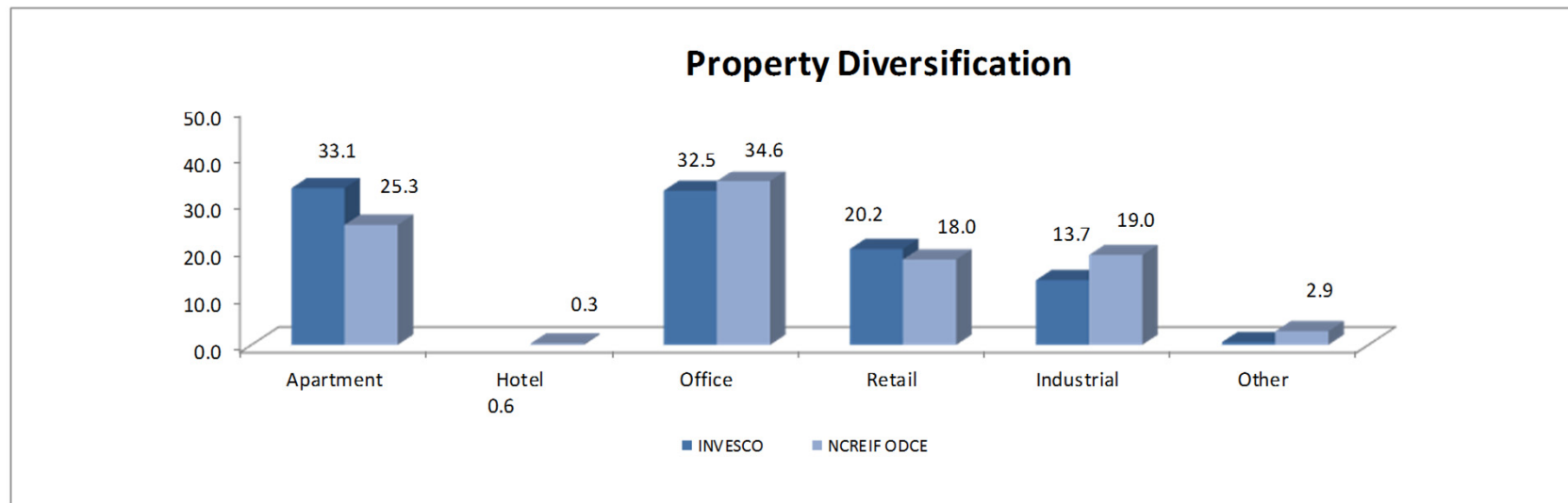
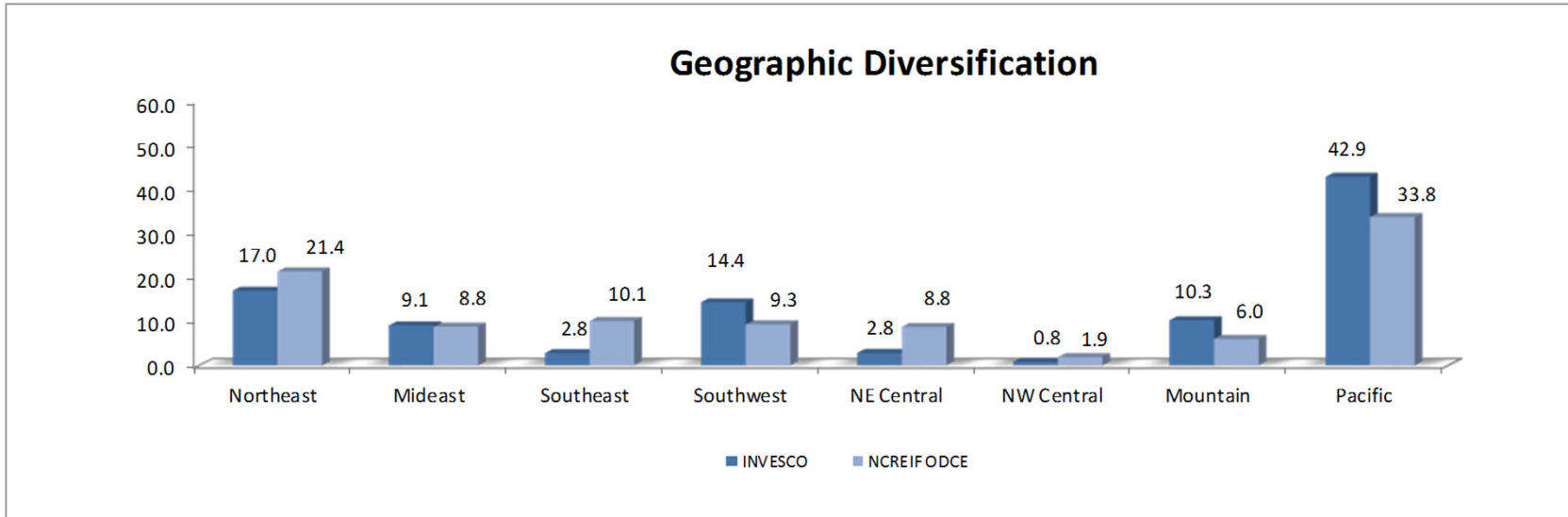
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error Rank
Real Estate	10.67%	4.63%	2.21	-0.27	27
NCREIF ODCE	11.03%	4.59%	2.31	--	1
Invesco	10.62%	4.62%	2.21	-0.29	--
NCREIF ODCE	11.03%	4.59%	2.31	--	--
TIPS	1.33%	2.74%	0.33	-0.26	--
BBgBarc US TIPS TR	1.68%	3.68%	0.34	--	--
Brown Brothers Harriman	1.33%	2.74%	0.33	-0.26	67
BBgBarc US TIPS TR	1.68%	3.68%	0.34	--	1

InvestorForce All DB Real Estate Pub Net Return Comparison



	Return (Rank)							
	Quarter	YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years
5th Percentile	8.7	4.3	8.4	9.4	10.0	11.0	11.3	6.2
25th Percentile	2.2	4.1	7.8	7.9	8.9	10.3	10.6	4.8
Median	1.9	3.5	6.9	6.8	7.8	9.6	10.1	4.4
75th Percentile	1.7	3.2	6.0	5.4	7.1	9.3	9.3	3.7
95th Percentile	1.3	-0.1	2.8	0.7	6.1	7.1	7.9	3.1
# of Portfolios	71	71	70	68	66	61	51	41
● Real Estate	1.7 (76)	3.9 (35)	7.8 (27)	8.0 (20)	9.0 (22)	10.7 (12)	10.7 (24)	5.0 (17)
▲ NCREIF ODCE	2.1 (41)	4.3 (8)	8.4 (5)	8.2 (19)	9.4 (12)	11.0 (5)	11.4 (4)	5.7 (9)



INVESCO Core Real Estate
Real Estate Valuation Analysis

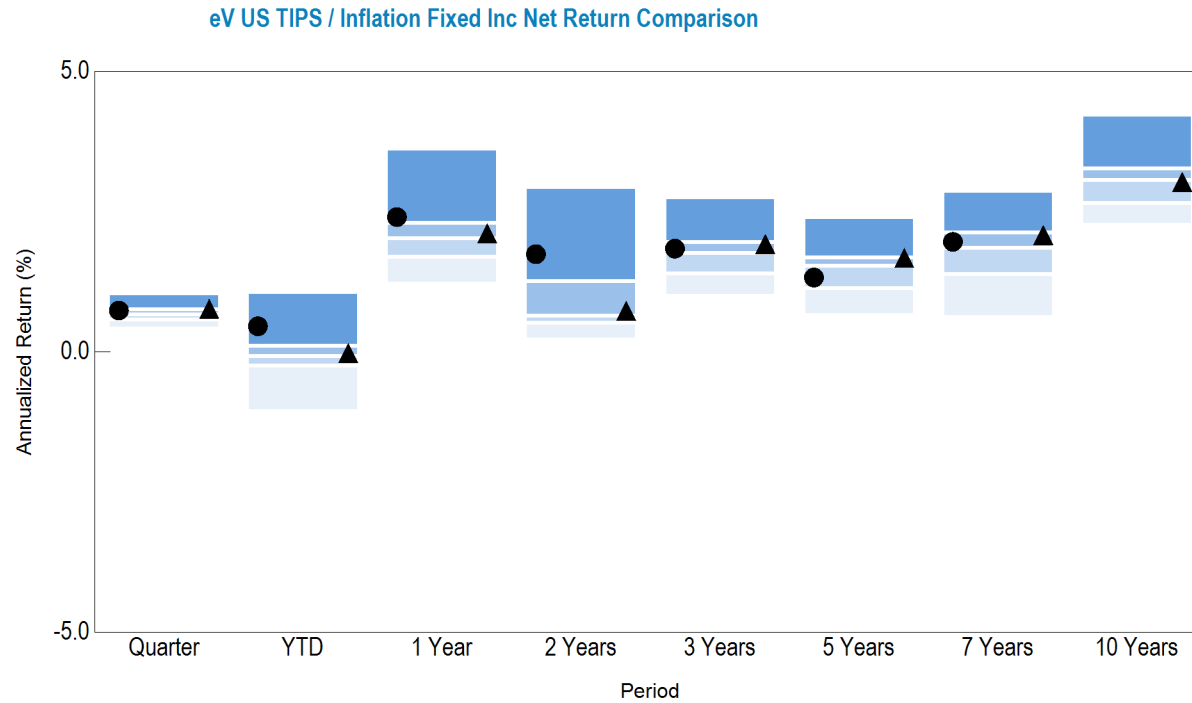
Period Ending: June 30, 2018

Property Name	MSA	Prior Quarter Carry Value	Current Quarter Carry Value	Net Market Value	Date Added to Fund	Last Valuation Date	SamCERA ownership as of 06/30/2018 2.74%
APARTMENTS							
Stoneridge Apartments	Pleasanton, CA	\$238,000,000	\$239,000,000	\$239,000,000	4Q06	June-18	\$6,538,200
Instrata Pentagon City	Arlington, VA	\$152,000,000	\$152,000,000	\$152,000,000	3Q10	June-18	\$4,158,186
Ladd Tower	Portland, OR	\$133,000,000	\$132,000,000	\$75,671,472	4Q10	June-18	\$2,070,106
Legacy Fountain Plaza	San Jose, CA	\$158,969,725	\$159,972,508	\$159,972,508	1Q11	June-18	\$4,376,286
Instrata Gramercy (fka The Elektra)	New York, NY	\$172,500,000	\$171,000,000	\$98,874,543	1Q11	June-18	\$2,704,860
Instrata Brooklyn Heights (fka 75 Clinton Street)	Brooklyn, NY	\$68,500,000	\$68,300,000	\$68,300,000	1Q12	June-18	\$1,868,448
The Artisan Laguna Beach	Orange County, CA	\$164,000,000	\$164,000,000	\$103,040,889	3Q12	June-18	\$2,818,837
The GoodWynn	Atlanta, GA	\$98,200,000	\$98,600,000	\$98,600,000	4Q12	June-18	\$2,697,350
Instrata Hell's Kitchen	New York, NY	\$194,000,000	\$194,000,000	\$194,000,000	1Q13	June-18	\$5,307,158
Sunset Vine Tower	Los Angeles, CA	\$102,000,000	\$102,000,000	\$102,000,000	2Q13	June-18	\$2,790,362
Instrata Ashton Uptown	Dallas, TX	\$122,000,000	\$123,000,000	\$66,373,204	4Q13	June-18	\$1,815,738
206 Bell	Seattle, WA	\$48,500,000	\$48,500,000	\$48,500,000	4Q13	June-18	\$1,326,790
Cadence Union Station	Denver, CO	\$90,600,000	\$90,700,000	\$53,935,269	1Q14	June-18	\$1,475,479
Joseph Arnold Lofts	Seattle, WA	\$71,300,000	\$71,400,000	\$37,488,135	2Q14	June-18	\$1,025,544
Verve	Denver, CO	\$108,000,000	\$108,000,000	\$108,000,000	3Q14	June-18	\$2,954,500
Broadstone Little Italy	San Diego CA	\$121,000,000	\$121,000,000	\$68,314,106	3Q14	June-18	\$1,868,834
33 Tehama	San Francisco, CA	\$290,440,459	\$297,123,440	\$182,814,458	3Q14	June-18	\$5,001,161
The Parker	Portland, OR	\$66,000,000	\$63,700,000	\$32,651,641	1Q15	June-18	\$893,234
Legacy West Apartments	Plano, TX	\$114,944,403	\$108,382,915	\$53,136,495	1Q15	June-18	\$1,453,628
The Royce	Irvine, CA	\$179,275,326	\$191,803,121	\$105,897,604	2Q15	June-18	\$2,896,986
Wheaton 121	Wheaton, IL	\$77,100,000	\$77,100,000	\$77,100,000	2Q15	June-18	\$2,109,185
Jefferson Marketplace	Washington, DC	\$154,000,000	\$155,000,000	\$85,280,610	4Q15	June-18	\$2,332,978
Retreat at Park Meadows	Littleton, CO	\$147,000,000	\$148,000,000	\$148,000,000	4Q15	June-18	\$4,048,760
North Water Apartments	Chicago, IL	\$265,000,000	\$265,000,000	\$265,000,000	1Q16	June-18	\$7,249,469
2270 Broadway	Oakland, CA	\$27,925,453	\$28,165,174	\$28,165,174	1Q16	June-18	\$770,500
Runway at Playa Vista Apartments	Playa Vista, CA	\$163,770,000	\$163,770,000	\$100,302,500	1Q16	June-18	\$2,743,924
Clayton Lane Apartments	Denver, CO	\$37,489,843	\$37,963,551	\$37,963,551	1Q16	June-18	\$1,038,549
Biscayne 27	Miami, FL	\$57,823,573	\$68,022,592	\$50,762,861	2Q16	June-18	\$1,388,694
Flats 8300	Washington DC	\$236,000,000	\$242,000,000	\$242,000,000	2Q16	June-18	\$6,620,270
407 1st Ave	New York, NY	\$196,800,000	\$197,000,000	\$197,000,000	4Q16	June-18	\$5,389,228
5250 Park	Miami, FL	\$18,295,297	\$26,131,258	\$19,829,586	2Q17	June-18	\$542,468
The Mason	Pleasanton, CA	\$100,000,000	\$100,000,000	\$100,000,000	3Q17	June-18	\$2,735,649
		\$4,174,434,079	\$4,212,634,557	\$3,399,974,606			\$93,011,357
INDUSTRIAL							
Arjons Industrial Park	San Diego CA	\$42,100,000	\$45,300,000	\$45,300,000	2Q04	June-18	\$1,239,249
Gateway Business Park	Dallas TX	\$13,300,000	\$13,500,000	\$13,500,000	2Q04	June-18	\$369,313
Hayward Industrial	Oakland CA	\$192,400,000	\$195,800,000	\$195,800,000	3Q04-3Q07	June-18	\$5,356,400
Oakesdale Commerce Center	Seattle - Belle - Eve WA	\$58,100,000	\$61,300,000	\$61,300,000	1Q06	June-18	\$1,676,953
South Bay Industrial	Los Angeles, CA	\$58,000,000	\$58,400,000	\$58,400,000	4Q06	June-18	\$1,597,619
Steeplechase Portfolio	Capitol Heights, MD	\$99,500,000	\$105,500,000	\$105,500,000	1Q11	June-18	\$2,886,109
Airport Trade Center Portfolio	Dallas, TX	\$131,200,000	\$135,500,000	\$135,500,000	1Q11	June-18	\$3,706,804
IE Logistics	San Bernardino, CA	\$151,000,000	\$150,000,000	\$150,000,000	3Q11	June-18	\$4,103,473
Railhead Industrial	Dallas, TX	\$65,300,000	\$66,200,000	\$66,200,000	4Q11	June-18	\$1,810,999
Empire Gateway aka Chino South Logistics Center	Chino, CA	\$280,000,000	\$282,000,000	\$282,000,000	4Q12	June-18	\$7,714,529
SFO Logistics Center	San Francisco, CA	\$147,000,000	\$163,000,000	\$163,000,000	4Q13	June-18	\$4,459,107
Miami Industrial Portfolio	Various, FL	\$84,011,472	\$85,466,334	\$58,843,771	1Q16	June-18	\$1,609,759
Miami Industrial Portfolio - Fedex	Hollywood, FL	\$42,600,000	\$43,700,000	\$29,403,041	1Q16	June-18	\$804,364
OMP Burbank	Los Angeles, CA	\$74,360,605	\$72,305,480	\$72,305,480	2Q16	June-18	\$1,978,024
Pacific Commons	Freemont, CA	\$150,062,415	\$154,973,874	\$138,025,289	1Q17	June-18	\$3,775,887
Gateway 80 Business Park	Fairfield, CA	\$100,000,000	\$106,600,000	\$106,600,000	1Q18	June-18	\$2,916,201
		\$1,688,934,492	\$1,739,545,687	\$1,681,677,581			\$46,004,789

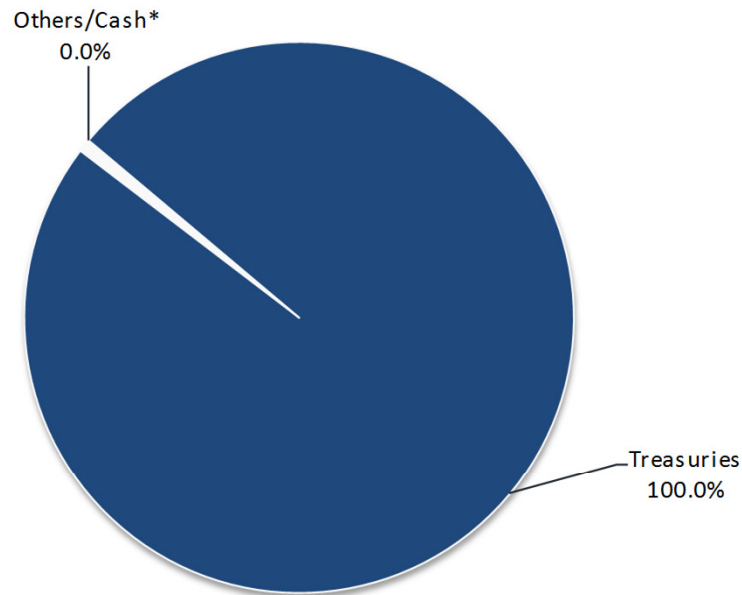
INVESCO Core Real Estate
Real Estate Valuation Analysis

Period Ending: June 30, 2018

OFFICE							
55 Cambridge Parkway	Boston MA - NH	\$306,000,000	\$308,000,000	\$308,000,000	4Q06	June-18	\$8,425,798
1111 Pennsylvania Avenue	Washington, D.C.	\$343,000,000	\$345,000,000	\$345,000,000	4Q10	June-18	\$9,437,988
1800 Larimer	Denver, CO	\$329,000,000	\$330,000,000	\$330,000,000	1Q11	June-18	\$9,027,640
Hillview Office	San Jose, CA	\$79,100,000	\$79,600,000	\$79,600,000	3Q12	June-18	\$2,177,576
Williams Tower	Houston, TX	\$598,000,000	\$600,000,000	\$417,619,393	1Q13	June-18	\$11,424,599
Westlake Park Place	Westlake Village, CA	\$109,000,000	\$109,000,000	\$109,000,000	4Q13	June-18	\$2,981,857
101 Second	San Francisco, CA	\$415,000,000	\$416,000,000	\$416,000,000	1Q14	June-18	\$11,380,298
Energy Crossing II	Houston, TX	\$104,000,000	\$104,000,000	\$104,000,000	2Q14	June-18	\$2,845,075
1776 Wilson Blvd.	Arlington, VA	\$90,100,000	\$89,500,000	\$89,500,000	3Q14	June-18	\$2,448,405
631 Howard	San Francisco, CA	\$94,000,000	\$95,600,000	\$95,600,000	3Q14	June-18	\$2,615,280
Barton Oaks	Austin, TX	\$92,900,000	\$94,200,000	\$94,200,000	3Q14	June-18	\$2,576,981
Hercules East and South Campus	Los Angeles, CA	\$181,123,239	\$182,150,051	\$182,150,051	3Q14	June-18	\$4,982,985
The Reserve	Playa Vista, CA	\$379,040,898	\$383,747,471	\$383,747,471	1Q15	June-18	\$10,497,982
Fort Point Portfolio	Boston, MA	\$245,357,819	\$247,336,511	\$247,336,511	2Q15	June-18	\$6,766,258
Summit IV	Aliso Viejo, CA	\$116,000,000	\$116,000,000	\$78,355,097	2Q15	June-18	\$2,143,520
1101 Westlake	Seattle, WA	\$128,000,000	\$136,000,000	\$136,000,000	3Q15	June-18	\$3,720,482
PearlWest	Boulder, CO	\$121,000,000	\$127,000,000	\$127,000,000	4Q16	June-18	\$3,474,274
The Mark 302	Santa Monica, CA	\$49,898,678	\$50,528,109	\$50,528,109	1Q18	June-18	\$1,382,272
430 West 15th Street	New York NY	\$0	\$158,500,000	\$158,500,000	2Q18	Acq 2Q18	\$4,336,003
The Quad	New York NY	\$0	\$71,566,306	\$71,566,306	2Q18	Acq 2Q18	\$1,957,803
		\$3,877,840,529	\$4,141,259,446	\$3,866,131,538			\$105,763,773
RETAIL							
Chandler Pavilion	Phoenix - Mesa AZ	\$23,900,000	\$26,400,000	\$26,400,000	2Q04	June-18	\$722,211
Cityline at Tenley	Washington, D.C.	\$65,000,000	\$61,000,000	\$61,000,000	4Q05	June-18	\$1,668,746
Ridgehaven Shopping Center	Minnetonka, MN	\$42,300,000	\$42,500,000	\$42,500,000	4Q05	June-18	\$1,162,651
The Beacon Garage (units)	San Francisco, CA	\$36,215,385	\$36,249,909	\$36,249,909	1Q06	June-18	\$991,670
The Beacon Office (210 King)	San Francisco, CA	\$25,500,000	\$28,500,000	\$28,500,000	1Q15	June-18	\$779,660
Hawthorne Plaza	Overland Park, KS	\$51,900,000	\$53,425,000	\$53,425,000	4Q07	June-18	\$1,461,520
The Loop	Boston MA - NH	\$89,000,000	\$83,000,000	\$83,000,000	1Q08	June-18	\$2,270,588
Westbank Market	Austin, TX	\$62,900,000	\$63,000,000	\$63,000,000	3Q10	June-18	\$1,723,459
910 Lincoln Road	Miami, FL	\$34,700,000	\$35,100,000	\$35,100,000	4Q10	June-18	\$1,723,459
Lake Pointe Village	Houston, TX	\$83,850,000	\$86,950,000	\$86,950,000	4Q11	June-18	\$960,213
Safeway Kapahulu	Hawaii	\$94,900,000	\$95,100,000	\$59,225,251	4Q11	June-18	\$1,620,195
Safeway Burlingame	San Francisco, CA	\$58,800,000	\$58,600,000	\$36,104,134	4Q11	June-18	\$987,682
Shamrock Plaza	Oakland, CA	\$40,600,000	\$40,700,000	\$24,595,759	4Q11	June-18	\$672,854
Pavilions Marketplace	West Hollywood, CA	\$70,200,000	\$70,600,000	\$46,150,855	1Q12	June-18	\$1,262,525
130 Prince	New York, NY	\$217,000,000	\$218,000,000	\$218,000,000	2Q12	June-18	\$5,963,714
Safeway Pleasanton	Pleasanton, CA	\$83,000,000	\$82,600,000	\$82,600,000	4Q12	June-18	\$2,259,646
Liberty Wharf	Boston, MA	\$97,200,000	\$97,300,000	\$67,708,931	4Q12	June-18	\$1,852,278
Shops at Legacy	Plano, TX	\$117,561,046	\$115,588,287	\$115,588,287	3Q13	June-18	\$3,162,089
Pasadena Commons	Pasadena, CA	\$61,900,000	\$61,900,000	\$61,900,000	4Q14	June-18	\$1,693,366
Rush Street Retail	Chicago, IL	\$16,900,000	\$16,900,000	\$16,900,000	4Q14	June-18	\$462,325
Legacy West Retail	Plano, TX	\$198,740,004	\$193,969,026	\$120,163,116	1Q15	June-18	\$3,287,241
Legacy West Land	Plano, TX	\$917,929	\$917,929	\$917,929	2Q17	June-18	\$25,111
131-137 Spring Street	New York, NY	\$228,000,000	\$224,000,000	\$111,200,000	3Q15	June-18	\$3,042,041
Runway at Playa Vista - Retail	Playa Vista, CA	\$127,200,000	\$127,200,000	\$64,792,500	1Q16	June-18	\$1,772,495
139 Spring	New York, NY	\$126,924,800	\$126,924,800	\$126,924,800	1Q16	June-18	\$3,472,216
Clayton Lane	Denver, CO	\$145,484,260	\$146,689,047	\$101,067,741	1Q16	June-18	\$2,764,858
4th & Colorado	Santa Monica, CA	\$13,280,000	\$13,280,000	\$13,280,000	1Q16	June-18	\$363,294
Legacy West - Block H	Plano, TX	\$5,188,070	\$6,713,845	\$6,713,845	4Q17	June-18	\$183,667
Shops at Crystals	Las Vegas, NV	\$292,750,000	\$293,750,000	\$157,833,913	2Q16	June-18	\$4,317,781
		\$2,580,496,109	\$2,575,607,934	\$2,016,542,062			\$54,510,317
Other							
Baranof - Walden Park	San Marcos, TX	\$10,860,901	\$9,664,361	\$9,664,361	1Q18	June-18	\$264,383
Baranof - Ranch Road 620	San Marcos, TX	\$9,020,071	\$8,928,029	\$8,928,029	1Q18	June-18	\$244,240
Baranof - Glenwood Avenue	Raleigh, NC	\$9,059,741	\$9,112,112	\$9,112,112	1Q18	June-18	\$249,275
Baranof - Fishers Landing Vancouver	Vancouver, WA	\$15,249,371	\$15,370,937	\$15,370,937	1Q18	June-18	\$420,495
US Storage	Compton, CA	\$7,992,682	\$8,679,384	\$8,679,384	4Q17	June-18	\$237,437
		\$71,744,211	\$72,648,253	\$72,648,253			\$1,987,401
Portfolio Total		\$12,393,449,420	\$12,741,695,877	\$11,036,974,040			\$301,277,637



	Return (Rank)							
5th Percentile	1.0	1.1	3.6	2.9	2.8	2.4	2.9	4.2
25th Percentile	0.8	0.1	2.3	1.3	2.0	1.7	2.1	3.3
Median	0.7	-0.1	2.0	0.7	1.8	1.5	1.9	3.1
75th Percentile	0.6	-0.2	1.7	0.5	1.4	1.1	1.4	2.7
95th Percentile	0.4	-1.1	1.2	0.2	1.0	0.7	0.6	2.3
# of Portfolios	22	21	21	21	21	18	17	11
● Brown Brothers Harriman	0.7 (32)	0.5 (13)	2.4 (24)	1.7 (19)	1.8 (45)	1.3 (62)	2.0 (39)	-- (--)
▲ BBgBarc US TIPS TR	0.8 (24)	0.0 (42)	2.1 (41)	0.7 (39)	1.9 (32)	1.7 (26)	2.1 (29)	3.0 (56)



Sector	Account Weight	BBgBarc TIPS	
		Index	Difference
Treasuries	100.0%	100.0%	0.0%
Agencies	0.0%	0.0%	0.0%
Corporates	0.0%	0.0%	0.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	0.0%	0.0%	0.0%
CMO	0.0%	0.0%	0.0%
ABS	0.0%	0.0%	0.0%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	0.0%	0.0%	0.0%
TOTAL	100.0%	100.0%	0.0%

* May include Derivatives, Futures, Swaps, Credit Default Swaps, Total Return Swaps or Currency Contracts.

Portfolio Characteristics		
	Portfolio	
Total Number of Securities		10
Total Market Value	\$	87,884,436
Current Coupon		1.14
Yield to Maturity		0.64
Average Life		
Duration		5.86
Quality		AAA

BBgBarc TIPS	
Total Number of Securities	39
Total Market Value	N/A
Current Coupon	0.78
Yield to Maturity	0.67
Average Life	
Duration	7.58
Quality	AAA

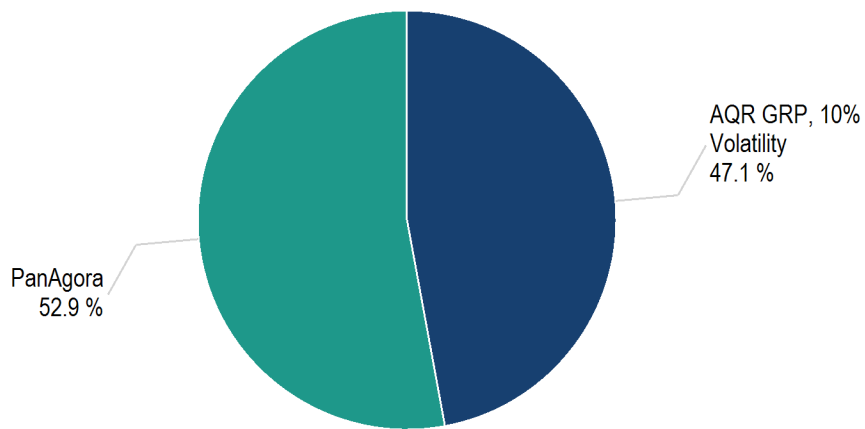
Yield to Maturity	
Range	% Held
0.0 - 5.0	100.0
5.0 - 7.0	0.0
7.0 - 9.0	0.0
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 3.0	13.6
3.0 - 5.0	14.9
5.0 - 10.0	58.2
10.0- 15.0	5.6
15.0+	7.7
Unclassified	0.0

Duration	
Range	% Held
0.0 - 3.0	13.6
3.0 - 5.0	29.9
5.0 - 10.0	43.3
10.0- 15.0	5.6
15.0+	7.7
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	100.0
Aaa (10)	0.0
Aa (9)	0.0
A (8)	0.0
Baa (7)	0.0
Below Baa (6-1)	0.0
Other	0.0

Coupon	
Range	% Held
0.0 - 5.0	100.0
5.0 - 7.0	0.0
7.0 - 9.0	0.0
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0



	Actual \$	Actual %	Manager Contribution to Excess Return %
AQR GRP, 10% Volatility	\$146,542,711	47.1%	-0.7%
PanAgora	\$164,583,726	52.9%	-0.6%
Actual vs. Policy Weight Difference			0.0%
Total	\$311,126,437	100.0%	-1.3%

Statistics Summary

3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Risk Parity	5.5%	7.5%	0.6	-0.3	6.0%
Blended Risk Parity Index	7.5%	6.1%	1.1	--	0.0%
AQR GRP, 10% Volatility	4.2%	7.4%	0.5	-0.6	5.7%
Blended Risk Parity Index	7.5%	6.1%	1.1	--	0.0%
PanAgora	6.7%	8.0%	0.7	-0.1	6.7%
Blended Risk Parity Index	7.5%	6.1%	1.1	--	0.0%

Statistics Summary

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Risk Parity	6.5%	7.7%	0.8	-0.4	6.0%
Blended Risk Parity Index	8.8%	6.0%	1.4	--	0.0%
AQR GRP, 10% Volatility	5.1%	7.7%	0.6	-0.6	5.9%
Blended Risk Parity Index	8.8%	6.0%	1.4	--	0.0%

Total Fund
Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Total Fund	0.6	0.2	6.9	9.8	6.8	8.3	6.4
<i>Policy Index</i>	0.8	0.1	7.8	10.1	7.0	8.2	6.8
Total Fund ex Overlay	0.6	0.2	6.8	9.8	6.7	8.2	6.4
<i>Policy Index</i>	0.8	0.1	7.8	10.1	7.0	8.2	6.8
Public Equity	1.1	0.4	11.2	15.0	9.1	10.6	7.3
<i>Blended Public Equity Index</i>	1.0	0.2	11.8	15.9	9.1	10.6	7.7
US Equity	4.1	3.4	15.3	16.9	11.3	13.0	9.8
<i>Blended US Equity Index</i>	3.9	3.2	14.8	16.8	11.3	13.1	10.3
<i>Russell 3000</i>	3.9	3.2	14.8	16.6	11.6	13.3	10.2
Large Cap Equity	3.7	3.1	15.3	17.5	12.4	13.8	9.9
<i>Russell 1000</i>	3.6	2.9	14.5	16.3	11.6	13.4	10.2
<i>BlackRock Russell 1000</i>	3.6	2.9	14.6	--	--	--	--
<i>DE Shaw</i>	4.3	4.0	19.1	19.6	14.5	15.5	--
<i>Russell 1000</i>	3.6	2.9	14.5	16.3	11.6	13.4	10.2
Small Cap Equity	7.0	6.4	15.4	18.9	9.4	11.1	10.0
<i>Russell 2000</i>	7.8	7.7	17.6	21.0	11.0	12.5	10.6
<i>QMA US Small Cap</i>	7.0	6.4	15.4	--	--	--	--
<i>Russell 2000</i>	7.8	7.7	17.6	21.0	11.0	12.5	10.6
International Equity	-2.2	-3.0	6.7	12.6	5.9	6.8	2.5
<i>MSCI ACWI ex US IMI</i>	-2.6	-3.6	7.8	14.2	5.8	6.7	3.1
<i>MSCI EAFE Gross</i>	-1.0	-2.4	7.4	13.9	5.4	6.9	3.3
Developed Markets	-1.3	-2.4	7.1	12.9	6.1	7.2	2.8
<i>MSCI ACWI ex USA Gross</i>	-2.4	-3.4	7.8	14.2	5.6	6.5	3.0
<i>Baillie Gifford</i>	0.5	-0.2	10.2	15.4	8.3	9.1	--
<i>MSCI ACWI ex US</i>	-2.4	-3.4	7.8	14.2	5.6	6.9	--
<i>MSCI ACWI ex US Growth</i>	-1.2	-2.0	10.3	14.0	6.9	8.0	--
<i>BlackRock EAFE Index</i>	-0.8	-2.4	7.3	13.8	5.3	--	--
<i>MSCI EAFE</i>	-1.2	-2.7	6.8	13.4	4.9	6.4	2.8
<i>MSCI EAFE Gross</i>	-1.0	-2.4	7.4	13.9	5.4	6.9	3.3

Total Fund
Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Mondrian	-3.4	-4.6	4.3	10.0	4.2	5.6	3.1
<i>MSCI ACWI ex USA Value Gross</i>	-3.6	-4.9	5.3	14.4	4.1	5.3	2.6
<i>MSCI ACWI ex USA Gross</i>	-2.4	-3.4	7.8	14.2	5.6	6.5	3.0
Emerging Markets	-9.5	-8.1	3.4	10.1	4.1	3.6	--
<i>MSCI Emerging Markets Gross</i>	-7.9	-6.5	8.6	16.1	6.0	5.4	2.6
Parametric Core	-9.5	-8.1	3.4	10.1	--	--	--
<i>MSCI Emerging Markets Gross</i>	-7.9	-6.5	8.6	16.1	6.0	5.4	2.6
Fixed Income	-0.3	-0.6	1.1	4.3	3.8	4.0	5.6
<i>Blended Fixed Income Index</i>	-0.1	-1.6	0.0	1.1	2.6	2.7	4.0
Core Fixed	-0.6	-1.5	0.0	1.6	2.7	3.2	4.8
<i>BBgBarc US Aggregate TR</i>	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7
BlackRock Intermediate Govt	0.1	-0.5	-0.5	--	--	--	--
<i>BBgBarc US Govt Int TR</i>	0.1	-0.7	-0.7	-1.0	0.6	1.0	2.4
FIAM Bond	0.0	-1.3	0.3	0.7	2.5	3.0	4.9
<i>BBgBarc US Aggregate TR</i>	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7
Western TRU	-2.9	-3.6	-0.1	4.8	--	--	--
3-Month Libor Total Return USD	0.6	1.1	1.8	1.4	1.1	0.8	0.7
<i>BBgBarc US Aggregate TR</i>	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7
Opportunistic Credit	0.4	1.4	4.0	9.6	6.9	7.4	--
<i>BBgBarc BA Intermediate HY</i>	0.0	-1.5	0.4	4.7	4.4	4.4	--
Angelo Gordon Opportunistic	9.5	15.4	24.8	20.9	13.8	--	--
Angelo Gordon STAR	4.8	11.7	20.3	19.2	13.0	13.6	--
<i>BBgBarc US Aggregate TR</i>	-0.2	-1.6	-0.4	-0.4	1.7	2.3	3.7
Beach Point Select	2.0	3.2	7.2	10.7	8.8	--	--
<i>BBgBarc BA Intermediate HY</i>	0.0	-1.5	0.4	4.7	4.4	4.4	--
Brigade Capital	1.5	2.6	4.4	10.3	6.4	5.5	--
<i>BBgBarc BA Intermediate HY</i>	0.0	-1.5	0.4	4.7	4.4	4.4	--
50% Barclays HY/ 50% Bank Loan	0.9	1.3	3.6	6.8	4.9	4.9	--

Total Fund
Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
PIMCO Diversified	-0.7	-1.4	--	--	--	--	--
<i>Blended PIMCO Diversified Index</i>	-1.1	-2.4	0.2	3.2	4.3	4.6	6.6
<i>BBgBarc BA Intermediate HY</i>	0.0	-1.5	0.4	4.7	4.4	4.4	--
Franklin Templeton	-4.3	-2.4	-2.5	4.0	1.5	2.0	--
<i>BBgBarc Multiverse TR</i>	-2.8	-1.6	1.3	0.0	2.8	1.7	2.8
Private Credit	1.3	3.2	5.9	--	--	--	--
<i>Cliffwater Direct Lending Index</i>	2.2	4.4	8.6	9.5	8.2	9.2	9.5
TCP Direct Lending VIII	2.2	2.9	6.3	--	--	--	--
White Oak Yield	0.0	3.4	3.2	--	--	--	--
<i>Cliffwater Direct Lending Index</i>	2.2	4.4	8.6	9.5	8.2	9.2	9.5
Risk Parity	-0.2	-1.6	6.6	5.3	5.5	6.5	--
<i>Blended Risk Parity Index</i>	1.1	0.4	7.3	9.3	7.5	8.8	--
AQR GRP, 10% Volatility	-0.5	-1.7	7.6	6.7	4.2	5.1	--
PanAgora	0.0	-1.6	5.8	4.2	6.7	--	--
<i>Blended Risk Parity Index</i>	1.1	0.4	7.3	9.3	7.5	8.8	--
<i>Blended RP Secondary Index</i>	2.3	1.3	8.6	9.2	6.5	7.5	--
Alternatives	-1.2	-0.5	2.6	9.6	6.1	7.1	--
<i>Blended Alternatives Index</i>	0.9	1.6	10.0	12.0	7.7	8.2	--
Private Equity	2.2	7.1	9.3	18.8	13.5	16.9	--
<i>Blended Private Equity Index</i>	0.2	0.4	13.6	17.5	13.2	15.5	12.9
Hedge Fund/Absolute Return	-4.6	-7.6	-3.6	0.4	2.5	4.1	--
Libor 1 month +4%	1.5	2.8	5.6	5.2	4.9	4.6	--
AQR DELTA XN	-6.1	-9.7	-4.9	-0.4	2.3	4.0	--
Aberdeen Standard GARS	-2.2	-4.0	-1.9	0.9	--	--	--
Libor 1 month +4%	1.5	2.8	5.6	5.2	4.9	4.6	--
Inflation Hedge	2.0	1.7	7.0	6.6	--	--	--
<i>Blended Inflation Hedge Index</i>	1.4	0.9	7.2	5.7	--	--	--
Real Estate	1.8	4.1	8.2	8.4	9.4	11.1	5.4
NCREIF ODCE	2.1	4.3	8.4	8.2	9.4	11.0	5.7

Total Fund
Performance Summary (Gross of Fees)

Period Ending: June 30, 2018

	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Invesco	1.9	4.3	8.3	8.4	9.3	11.0	5.4
NCREIF ODCE	2.1	4.3	8.4	8.2	9.4	11.0	5.7
Invesco US Val IV	2.0	4.7	12.8	11.5	--	--	--
NCREIF ODCE	2.1	4.3	8.4	8.2	9.4	11.0	5.7
NCREIF CEVA 1Q Lag - NET	2.1	5.6	11.6	10.4	12.4	--	--
PGIM RE US Debt Fund	1.4	2.5	--	--	--	--	--
NCREIF ODCE	2.1	4.3	8.4	8.2	9.4	11.0	5.7
Private Real Asset	1.6	-0.3	-5.8	-1.6	11.1	--	--
Blended Private Real Asset Index	-4.0	-7.1	1.9	3.4	4.4	--	--
Blended Secondary CA Private RA Index	1.6	5.5	10.7	13.3	7.9	--	--
Liquid Real Asset	2.8	-0.2	10.4	--	--	--	--
Blended Liquid Real Asset Index	2.5	-0.8	8.9	6.9	6.7	--	--
SSgA Custom Real Asset	2.8	-0.2	10.4	--	--	--	--
Blended Liquid Real Asset Index	2.5	-0.8	8.9	6.9	6.7	--	--
TIPS	0.8	0.5	2.6	1.9	2.0	1.5	--
BBgBarc US TIPS TR	0.8	0.0	2.1	0.7	1.9	1.7	3.0
Brown Brothers Harriman	0.8	0.5	2.6	1.9	2.0	1.5	--
BBgBarc US TIPS TR	0.8	0.0	2.1	0.7	1.9	1.7	3.0
Cash	0.3	0.5	1.0	0.9	1.1	0.8	0.5
91 Day T-Bills	0.5	0.8	1.4	1.0	0.7	0.4	0.3
General Account	1.1	1.5	2.7	1.9	2.0	1.4	0.9
Treasury & LAIF	0.4	2.7	3.2	1.8	1.6	1.3	0.6
91 Day T-Bills	0.5	0.8	1.4	1.0	0.7	0.4	0.3

Angelo, Gordon & Co. – AG STAR Fund

The STAR Fund will focus on CMBS and non-Agency RMBS priced between 25-75% of par, which AG believes are even today mispriced due to their complex nature and a dearth of natural buyers capable of accurately valuing these assets. In addition, AG will target securities that are well-positioned to benefit from home and commercial property price stabilization and recovery, and/or borrower credit quality improvement. In this regard the STAR Fund will be more aggressive than the PPIP Fund since it will target securities that are more geared to a recovery of the commercial and residential real estate markets. The Fund will utilize a moderate amount of leverage (1x to 1.5x) and is targeting a base-case 15% net IRR with a downside return in the mid/high single digits and an upside projection of 25%+ returns.

Angelo, Gordon & Co. – AG Opportunistic Whole Loan Fund

As bank balance sheets have strengthened since the crisis, Angelo Gordon expects approximately \$40 billion of re-performing loans and non-performing loans will trade hands each year in the near term. By acquiring these loans at a discounted price and replacing original servicers with better-focused special servicers, Angelo Gordon believes it can improve operational efficiency and generate attractive returns. To take advantage of this opportunity, Angelo Gordon established this Opportunistic Whole Loan Fund to make investments primarily in a portfolio of non-performing loans and re-performing, but will also include investments in new residential mortgage loans and excess mortgage servicing rights. Opportunistic investments in commercial mortgage loans and other mortgage related investments may also be included in the Fund's portfolio. Angelo Gordon has been an active participant in the residential and consumer debt market since 2008. The Partnership's investment approach to residential mortgage loans and securities is guided by an analytically based investment process anchored by distressed asset valuation and cash flow modeling. Angelo Gordon's analysis of re-performing and non-performing loans begins with its loan due diligence process. This process will include a review of substantially all of the properties in the pool, as well as a review of the loan files backing the loan pool. In addition, a macro overlay is embedded in the investment process which incorporates general economic trends, along with specific views on interest rates, unemployment, collateral appreciation or depreciation, governmental intervention in creditors' rights and liquidation timelines.

AQR Delta

The AQR DELTA Fund aims to deliver efficient exposure to a well-diversified portfolio of hedge fund strategies, including Convertible Arbitrage, Event Driven, Fixed Income Relative Value, Equity Market Neutral, Long/Short Equity, Dedicated Short Bias, Global Macro, Managed Futures, and Emerging Markets. The Delta Fund's approach is to capture and deliver the "hedge fund risk premiums" that explain much of the returns of each of these strategies by building bottom-up positions in each strategy. AQR's research has demonstrated that many hedge funds use similar strategies to generate returns. These strategies are often well-known, widely understood and share common exposures. AQR's experience and research suggests much of the insight underlying these strategies - as well as a meaningful portion of their returns - can be captured using a dynamic, disciplined investment approach. Just as the equity risk premium can explain a large portion of the returns from equity investing, hedge fund risk premiums can explain the returns from hedge fund investing. Importantly, while compensation for equity risk is dependent on economic growth, hedge fund risk premiums are largely unrelated to economic activity, and thus provide attractive diversification properties.

AQR – Risk Parity

The objective of Global Risk Parity (GRP) is to generate excess returns from a risk diversified portfolio of asset exposures. AQR believes that its approach maximizes the diversification benefit across a broad range of economic environments. For many institutional portfolios, equity risk has historically been the predominant risk and the source of most return expectations since equities offer higher expected returns to compensate for their high risk. Investor preference for and concentration in equities has been driven by their expected return needs, which cannot be satisfied in a well-diversified un-levered portfolio. GRP is a diversified portfolio that can be scaled to similar levels of risk as a portfolio concentrated in equities, but with a higher expected return resulting from diversification across asset class risk. The approach helps do away with the compromise of concentrating in high risk assets to meet high return needs. Consistent with portfolio theory, the GRP strategy is designed to maximize diversification across a broad spectrum of liquid global risk premia to create a portfolio with higher expected risk-adjusted returns. Research shows that risk-adjusted returns across asset classes are similar over the long-term. Since realized risk-adjusted returns across asset classes are similar, AQR expects a portfolio that is diversified equally by risk to perform better. The Global Risk Premium strategy aims to deliver efficient market exposure across four broad asset classes in a risk balanced fashion.

Baillie Gifford – ACWI ex US Focus Equities

ACWI ex US Focus is a fundamental growth strategy. Research is organized primarily by regional teams, with each member of the ACWI ex US Focus Portfolio Construction Group representing a regional team. Four global sector groups also contribute research. Baillie Gifford conducts approximately 2000 company meetings annually both in Edinburgh and onsite. Companies are evaluated on their growth opportunity relative to the average company, their ability to execute on that opportunity, and the degree to which probability of future success is already valued by the market. Baillie Gifford's basic philosophy is that share prices ultimately follow earnings. They believe that the stock market has a recurring tendency to under-appreciate the value of long-term compound growth. The process seeks to add value through use of proprietary fundamental research to identify companies exhibiting some combination of sustained above average growth, and attractive financial characteristics. The portfolio generally holds 80-120 stocks, with country and sector weights +/-6% relative to the index and industry weights +/- 5% relative to the index.

Beach Point Select Fund

Beach Point Select Fund is a commingled fund vehicle within the firm's Opportunistic Credit strategy. This fund focuses on off-the-run, complex, and less-liquid securities. It is a best ideas portfolio of distressed debt, special situations, private/direct loans, catalyst-driven high yield bonds and bank loans, and credit-informed equities with a North American and European focus. The Select Fund differs from other funds and accounts in the Opportunistic Credit strategy by pursuing a more concentrated portfolio and emphasizing a higher percentage of less-liquid/private investments. Beach Point invests up and down the entire capital structure and it constructs portfolios with a bottom-up, research-driven approach that also takes into account top-down macro considerations. Its investment process includes idea generation, detailed credit analysis, relative value decision making and investment selection, portfolio construction and on-going monitoring. The ultimate goal of its investment process is to produce a well-diversified investment portfolio with limited downside risk and substantial upside potential.

BlackRock – EAFE Index

The EAFE Index Fund seeks to replicate the return of the MSCI EAFE Index. This index represents the developed equity markets outside of North America: Europe, Austral, Asia and the Far East.

BlackRock – Intermediate Government Index

The Intermediate Government Index Fund seeks to track the results of an index composed of U.S. dollar-denominated government, government related, and investment grade U.S. corporate bonds with maturities between 1 and 10 years.

BlackRock – Russell 1000 Index

The Russell 1000 Index Fund tracks large U.S. companies and achieve broad diversification with low costs by fully replicating the Russell 1000 Index.

Brigade – Opportunistic Credit

Opportunistic Credit is a fundamental, bottom-up strategy focused on high yield corporate bonds and bank loans with tactical allocations to structured securities, convertibles and other sectors of the bond markets as they become attractive on a relative value basis. While performing credits represent the majority, Brigade will invest up to 35% of the portfolio in distressed securities and restructuring situations if these types of opportunities are attractive on a risk-adjusted basis and the timing is right with respect to the credit cycle. The portfolio is comprised of mostly North American issuers, but they are not restricted geographically and expect to have a moderate allocation to Europe over time. Although the portfolio is generally long-only, Brigade has the ability to implement a limited amount of tactical macro hedges.

Brown Brothers Harriman – Inflation Indexed Securities

BBH manages TIPS using three main types of strategies: Fundamental, Technical and Opportunistic. The Fundamental bucket has two sub-strategies, real yield duration and real yield curve slope vs. nominal yield curve slope. The Technical strategies consist of yield curve roll-down, auction cycle trading, seasonal vs. non-seasonal CPI and security selection/option value analysis. Finally, nominal Treasuries vs. TIPS, sector relative value (i.e., corporate or Agency inflation-linked bonds) and non-Dollar inflation-linked bonds make up the Opportunistic group. Real yield duration is held to +/- 1 year vs. the benchmark and the portfolio has a limited allocation to non-index securities, typically 5-10% with a maximum of 20% (including nominal Treasuries).

DE Shaw – DE Shaw US Broad Market Core Alpha Extension Fund

The D. E. Shaw group believes that there exist some market inefficiencies that may be identified through quantitative analysis, advanced technology, and the insight of practitioners. Identifying these inefficiencies involves a process of hypothesis formulation, testing, and validation. Importantly, to avoid data-mining, the hypothesis formulation precedes the analysis of the historical data. D.E. Shaw's Structured Equity strategies rely largely on quantitative and computational investment techniques developed by the D. E. Shaw over the last 19 years in the course of research conducted for purposes of managing the firm's hedge funds. In addition to its beta one strategies, D.E. Shaw manages substantial assets in its hedge fund strategies. D.E. Shaw's investment process involves a suite of quantitative models, each designed to capitalize on a distinct and uncorrelated set of market inefficiencies. Some of these models are technical in nature and involve price and volume inputs. Other models rely on fundamental data, such as figures gleaned from corporate balance sheets or income statements. Still others, again quantitative, anticipate or react to a particular corporate event or set of events. These models typically operate with forecast horizons of a few weeks to many months. The ability to trade on shorter-term signals distinguishes D.E. Shaw from many of its long only and 130/30 peers. Portfolio construction involves the use of a proprietary optimizer which runs dynamically throughout the trading day. The portfolio is broadly diversified with several hundred long and short positions. Over- and under-weighting of sectors and industries relative to the benchmark will be quite modest, with the intention that most of the alpha be generated by security selection. The US Broad Market Core Alpha Extension Fund is a 130/30 strategy which maintains a beta that is approximately neutral to the Russell 1000 Index.

Eaton Vance/Parametric – Structured Emerging Markets Core Equity

Parametric utilizes a structured, rules-based approach, which they believe is capable of generating enhanced returns with lower volatility compared to both traditional active management and passive capitalization weighted indices. The basic idea is to structure the portfolio with more balanced country weights than the market cap weighted indices, and also to capture a rebalancing premium. This provides more diversification and greater exposure to smaller countries than is provided by the market cap weighted indices. The approach is to divide emerging markets countries into three tiers, and to equally weight the countries within each tier. Tier 1 countries are the largest eight countries that dominate the cap weighted index. Each successive tier is comprised of smaller countries, each of which is given a smaller target weighting in the model portfolio. In aggregate, the eight Tier 1 countries are given a much lower weighting than in the capitalization weighted index, but they nevertheless comprise more than 50% of the portfolio. The Core SEM strategy targets excess return of 3% over a market cycle with 2.5%-4.5% tracking error. It is designed to generate a level of volatility 90%-100% of the MSCI EM index. The strategy invests in 44 countries and will typically hold 700-1,000 securities. Turnover is expected to be in the range of 5%-15%.

Franklin Templeton Investments – Global Fixed Income

Franklin Templeton manages the global bond mandate in an unconstrained fashion using a top-down, fundamental framework. In the short term and on a country-by-country basis there are often inefficiencies in global bond and currency markets, however, over the longer term the market will generally price to fundamentals. Thus, FT focuses on fundamental research to identify long-term opportunities and uses short-term market inefficiencies to build positions in such investments. The investment and portfolio construction process begins with the determination of the Fund's or institutional client's investment objectives, resulting in a set of risk-return parameters and exposure limits within which the portfolio is managed. Next the firm's global economic outlook for the industrialized countries is developed, with a focus on interest rate and exchange rate forecasts. The portfolio's interest rate outlook is a function of global general equilibrium macroeconomic analysis as well as country-specific research. Macroeconomic conditions in the G-3 economies are analyzed first, primarily with respect to how current and projected growth and inflation dynamics are expected to influence monetary policy. This analysis is then extended out to the rest of the industrialized countries (G-13) as well as emerging markets, which results in broad targets for cash, duration, currencies and the developed/emerging market mix. Using the firm's interest rate and exchange rate outlook, probability-weighted horizon returns for bonds of various countries are then calculated. This analysis is used to establish specific country weights and duration targets based on risk-adjusted expected total return measured in the portfolio's base currency. Analysis of emerging markets includes sovereign credit analysis along with greater emphasis on capital flows, inter-market dynamics and trends in the level of risk aversion in the market.

INVESCO Realty Advisors – INVESCO Core Equity, LLC

SamCERA is a founding member of INVESCO's open end Core Equity real estate fund and rolled its separate account properties into the fund. INVESCO Core Equity, LLC (the "Fund") is a perpetual life, open-end vehicle which invests in a diversified portfolio of institutional quality office, retail, industrial and multifamily residential real estate assets. The Fund buys core properties that are located within the United States, typically requiring an investment of \$10 million or more. The portfolio cannot be more than 30% leveraged.

INVESCO Realty Advisors – INVESCO US Val IV

Invesco has provided SamCERA with Core Real Estate exposure since 2004 through the Invesco Core Equity Fund. The Invesco real estate team manages around \$62B in assets with investments and offices around the globe. Invesco Value Fund IV will look to acquire fundamentally sound but broken "core" assets that can be repositioned into institutional-quality, income producing properties. Investments will be limited to direct equity interests in office, multi-family, retail and industrial properties across the US. The Fund is expected to be geographically concentrated in U.S. gateway cities and top 25 Metropolitan Statistical Areas (MSA's). Invesco Value Fund IV will provide a nice compliment to the more conservative Invesco Core Fund and offer the potential of enhanced returns to the SamCERA Real Estate portfolio.

Mondrian Investment Partners – International Equity

Mondrian is a value-oriented, defensive manager whose investment philosophy is based on the principle that investments must be evaluated for their fundamental long-term value. The firm's philosophy involves three stated investment objectives: 1) provide a rate of return meaningfully greater than the client's domestic rate of inflation, 2) structure client portfolios that preserve capital during protracted international market declines, and 3) provide portfolio performance that is less volatile than benchmark indices and other international managers. Mondrian applies typical value screening criteria to a universe of 1,500 stocks, from which 500 are selected for more detailed work. Through fundamental research, and the deliberations of the Investment Committee, the universe is further reduced to a list of 150 stocks. The investment team conducts detailed fundamental analysis on the remaining stocks, a process which includes applying the firm's dividend discount model consistently across all markets and industries. Mondrian also uses a purchasing power parity model to give an accurate currency comparison of the value of the stocks under consideration. The firm will only consider buying stocks in countries with good investor protection practices and relatively simple repatriation procedures. A computer based optimization program is employed in the portfolio construction process. Mondrian's portfolio holds 80-125 issues.

Panagora – Diversified Risk Multi Asset Fund

The Multi Asset team is headed up by Edward Qian, CIO of the group, and the founder of Panagora's risk parity strategy. A staff of approximately thirteen works in this group on research and portfolio construction, with some people spending more time on the former and some more on the latter. Panagora implements risk parity by distinguishing between three categories of assets: equities, nominal fixed income, and inflation protection. Each of these categories corresponds to a respective economic environment: economic growth, economic contraction and inflation. Panagora's risk allocation targets 40% each from equities and nominal fixed income, and 20% from inflation protection. In addition to applying concept of risk parity between asset classes, Panagora also applies it within each asset class. The 40/40/20 allocation to equities/nominal fixed income/inflation protection is a long term strategic allocation. In 2009 Panagora introduced what they refer to as "Dynamic Risk Allocation" or "DRA," which involves tactically tilting the risk allocations away from the neutral targets in order to enhance returns and reduce risk.

PGIM RE Debt

PGIM Real Estate US Debt Fund focuses on a loan origination strategy with a mix of 20% senior long duration loans on stable assets, 60% senior short/medium duration loans on stable and transitional assets, and 20% mezzanine mid/long duration debt.

PIMCO Diversified

PIMCO Diversified Income Fund offers a broad and flexible multi-credit approach in a liquid and cost-effective format. The Diversified Income Fund seeks to produce consistent above benchmark performance using diversified sources of alpha from a universe that includes global credit as well as “non-core” credit sectors (ex., securitized, emerging markets).

Pyramis Global Advisors – Broad Market Duration Commingled Pool

Pyramis’ Broad Market Duration (BMD) investment strategy seeks to achieve absolute and risk-adjusted returns in excess of the BC U.S. Aggregate Index, focusing its investments in US Treasuries, agencies, investment grade corporate bonds, mortgage-backed and asset-backed securities. The BMD commingled pool can also hold small, opportunistic positions in out-of-benchmark securities, such as inflation-linked bonds. The investable universe includes all US dollar denominated, investment grade debt securities. The BMD investment approach emphasizes issuer and sector valuation and individual security selection. Through the integration of fundamental and quantitative research and trading, the BMD strategy is implemented in a team environment. Risk management technology is utilized to explicitly quantify benchmark exposures on a daily basis, and Pyramis uses the same analytical framework to assess both index and portfolio risk. Tracking error should range between 40 and 60 basis points per annum over the benchmark, and stringent portfolio construction risk control rules are strictly adhered to.

Pyramis Global Advisors – Select International Small Cap

Pyramis Select International Small Cap is a core strategy. The approach is designed to leverage Pyramis/Fidelity’s proprietary resources to add value exclusively via stock selection. To that end the portfolio is constructed to be regionally neutral, with only modest deviations from the benchmark’s country and sector weights. The investment process involves three basic stages. The first stage is the security level research conducted by the analysts. The second stage is stock selection from within the pool of names that are highly ranked by the analysts. The third step is portfolio construction and risk management. The essential differentiating feature of this strategy is the breadth of coverage that is made possible by the large staff of analysts. Analysts actively conduct regular fundamental research on, and give a formal rating of 1-5, 1200-1300 international small cap companies. While there is no single firm-wide approach to security research, analysts are expected to establish an upside target for any given stock and assign a formal rating. The decision making structure is quite efficient, with portfolio manager Rob Feldman making all the buy and sell decisions. His role, as he puts it, is to be an intelligent user of the analysts’ research. He selects the 1- and 2-rated stocks that he thinks are compelling and additive to his portfolio, and he sells names when they are downgraded by the analysts. There are approximately 200 holdings in the portfolio. Country and sector weights are within 3 percentage points of the benchmark and position sizes are within 2 percentage points of the benchmark. Turnover tends to be in the 60%-80% range.

Quantitative Management Associates – QMA Small-Cap Core

Quantitative Management Associates (QMA) utilizes a bottom-up quantitative framework in order provide a diversified exposure to core U.S. small-cap stocks, while attempting to produce consistent outperformance versus the benchmark with moderate tracking error levels. QMA uses an adaptive, systematic investment process to exploit opportunities created by mispriced securities to consistently add value over long time periods. Bottom-up stock selection drives exposure to key sources of alpha (valuation, growth, and quality). The QMA stock selection model adapts to changes in company growth rates and market environments by putting more emphasis on valuation for slowly growing companies, and more emphasis on future growth projections for companies with higher projected growth rates.

Standard Life Aberdeen Global Absolute Return Strategy (GARS)

The Standard Life Aberdeen Global Absolute Return Strategy (GARS) was initially launched in 2005 to help address Standard Life's own pension plan's deficit problem. GARS' primary investment objective is to deliver a positive absolute return over the medium to long term with lower volatility than equities, irrespective of market conditions. It seeks returns through dynamic allocation to investment opportunities in traditional and advanced asset classes, and also separately exploits the team's security selection expertise. In the search for attractive investment positions, the team follows a rigorous research process. This includes a variety of research techniques, including broad global macro-economic, fundamental analysis, quantitative research and valuation modeling. The GARS investment process is designed to capitalize on an array of research and investment techniques and draws together the team's three-year investment insights. The team then rigorously examines and review position proposals to approve a high conviction, short list of positions that work well together. Having a cash benchmark means that GARS has a potentially unrestricted investment universe and all portfolio holdings are at the Portfolio Manager's discretion. The GARS portfolio also routinely uses a variety of conventional derivatives for investment, liquidity, efficiency and hedging purposes. The GARS strategy has experienced significant growth in its asset under management since it becomes available to external investors in 2006.

State Street Global Advisors (SSgA) Custom Real Asset

SSgA Custom Real Asset portfolio uses a portfolio of liquid real assets to proxy private real assets. The portfolio is comprised of equal weightings of the Bloomberg Commodity Index, S&P Global Natural Resources Index, and S&P Global Infrastructure Index. The portfolio is used to fund upcoming private real asset mandates.

Tennenbaum Capital Partners - TCP Direct Lending Fund VIII

TCP Direct Lending Fund VIII is a private investment fund managed by Tennenbaum Capital Partners ("TCP"). The Fund is designed to continue TCP's successful strategy of investing in privately-originated, performing senior secured debt primarily in North America-based companies with target enterprise values between \$100 million and \$1.5 billion. The Fund will include positions in 1st lien, 2nd lien and unitranche debt, with a preference for floating-rate debt, which TCP believes provides better flexibility to adapt to market conditions. TCP's direct lending strategy has generated attractive investment opportunities across market cycles, as evidenced by the Firm's prior direct lending track record. Fund VIII targets an unlevered annual yield of approximately 9-12%, with its return primarily driven by current income.

Western Asset Management – Total Return Unconstrained (TRU)

Western Asset's Total Return Unconstrained strategy (TRU) seeks to provide bond-like risk and return over the long term, but does not have a benchmark. This allows for asset allocation based on value rather than using the construction of a benchmark as baseline positioning. The investment approach is active with very broad latitude on duration (-3 to +8 years) and on asset allocation across all of the eligible sectors in a core plus mandate. The portfolio must have at least 50% of its holdings in investment-grade securities. The flexibility offered by this strategy allows for defensive positioning in rising rate environments and opportunistic deployment of capital when value opportunities arise. It also allows the portfolio managers to emphasize (or deemphasize) either credit or rates when one or the other appears to offer greater (or lesser) value. um non-US exposure.

White Oak - White Oak Yield Spectrum Fund

The White Oak Yield Spectrum Fund's objective is to earn substantial current income by originating, extending, and/or investing in a diversified portfolio of primarily senior secured corporate credit and debt instruments consisting of term loans, asset based loans and equipment leases and loans issued by small to middle-market companies located primarily in the United States and Canada. It focuses on providing self-originated deals for predominantly non-sponsored, privately-held borrowers.

Policy Index and Benchmark History

Period Ending: June 30, 2018

Total Plan Policy Index	As of																	
	4/1/18	10/1/17	2/1/17	1/1/17	10/1/16	9/1/16	1/1/16	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	1/1/09	5/1/07	6/1/00	3/1/99	9/1/98	7/1/96
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	10.0%	10.0%
60/40 MSCI World/BBgBarc Global Aggregate (RP)	8.0%	8.0%	8.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
60/40 Russell 3000/BBgBarc US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	8.0%	8.0%	8.0%	8.0%	8.0%	6.0%	6.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Aggregate	14.0%	14.0%	12.0%	10.0%	10.0%	10.0%	10.0%	10.0%	9.3%	11.0%	11.0%	12.9%	27.0%	27.0%	29.0%	25.0%	21.0%	21.0%
BBgBarc BA Intermediate HY	7.0%	7.0%	6.0%	6.0%	6.0%	5.0%	5.0%	5.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.5%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Multiverse	0.0%	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.8%	4.4%	4.4%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc TIPS	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	3.1%	3.3%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	9.0%	9.0%
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	2.0%	2.0%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Liquid Real Asset	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Private Real Asset	2.0%	8.0%	7.0%	5.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Libor +4% (HF)	6.0%	6.0%	6.0%	5.0%	5.0%	5.0%	5.0%	4.0%	4.0%	3.0%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	18.0%	18.0%	18.0%	21.0%	21.0%	15.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	19.0%	19.0%	19.0%	20.0%	20.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI (Net)	19.0%	19.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	20.0%	20.0%
NCREIF ODCE	8.0%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	6.0%	6.0%	5.0%	5.0%	5.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.0%	24.0%	24.0%	28.0%	28.0%	28.0%	37.0%	37.0%	40.0%	22.0%	20.0%	20.0%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	6.0%	6.0%	7.0%	7.0%	7.0%	9.0%	9.0%	10.0%	15.0%	15.0%	15.0%
Russell 3000	21.0%	21.0%	23.0%	28.0%	28.0%	28.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% (PE)	0.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	8.0%	8.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000 +3% 1Q Lag (PE)	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Policy Index and Benchmark History

Period Ending: June 30, 2018

Total Equity Benchmark	As of:										
	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	34.0%	31.3%	23.1%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.3%	33.3%	33.3%
Russell 1000	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	8.4%	0.0%
Russell 2000	0.0%	0.0%	0.0%	8.3%	12.0%	13.2%	13.5%	15.4%	24.2%	25.0%	25.0%
Russell 3000	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

US Equity Benchmark	As of:						
	9/1/16	1/1/16	6/1/00	3/1/99	9/1/98	7/1/96	1/1/95
Russell 1000	0.0%	85.7%	80.0%	52.0%	50.0%	50.0%	69.0%
Russell 1000 Value	0.0%	0.0%	0.0%	12.0%	12.5%	0.0%	0.0%
Russell 2000	0.0%	14.3%	20.0%	36.0%	37.5%	37.5%	14.0%
Russell 3000	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S & P 500	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	17.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

International Equity Benchmark	As of:			
	10/1/17	1/1/14	6/1/00	1/1/96
MSCI ACWI ex US	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI	0.0%	100.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	100.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%

Fixed Income Benchmark	As of:											
	10/1/17	2/1/17	10/1/16	4/1/16	7/1/14	1/1/14	2/1/13	1/1/11	10/1/10	6/1/00	3/1/99	7/1/96
BBgBarc Aggregate	66.7%	57.1%	52.6%	55.5%	50.0%	46.3%	50.0%	50.0%	58.6%	100.0%	83.3%	70.0%
BBgBarc BA Intermediate HY	33.3%	28.6%	31.6%	27.8%	25.0%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.3%	0.0%	0.0%	0.0%
BBgBarc Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%	15.0%	0.0%	0.0%	0.0%	0.0%
BBgBarc Multiverse	0.0%	14.3%	15.8%	16.7%	15.0%	18.8%	20.0%	20.5%	0.0%	0.0%	0.0%	0.0%
BBgBarc TIPS	0.0%	0.0%	0.0%	0.0%	10.0%	10.0%	14.0%	15.0%	13.6%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	30.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Opportunistic Credit Benchmark	As of:	
	1/1/14	12/1/09
BBgBarc BA Intermediate HY	100.0%	0.0%
BBgBarc Credit BAA	0.0%	100.0%
	100.0%	100.0%

Risk Parity Benchmark	As of:	
	1/1/17	10/1/10
BBgBarc Aggregate	0.0%	40.0%
BBgBarc Global Aggregate	40.0%	0.0%
MSCI World	60.0%	0.0%
Russell 3000	0.0%	60.0%
	100.0%	100.0%

RP Secondary Benchmark	As of:	
	1/1/17	10/1/10
BBgBarc Aggregate	40.0%	0.0%
BBgBarc Global Aggregate	0.0%	40.0%
MSCI World	0.0%	60.0%
Russell 3000	60.0%	0.0%
	100.0%	100.0%

Policy Index and Benchmark History

Period Ending: June 30, 2018

Alternatives Benchmark	As of:				
	2/1/17	4/1/16	1/1/16	1/1/14	1/1/11
60/40 Russell 3000/BBgBarc US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	30.0%
Bloomberg Commodity	0.0%	0.0%	17.7%	18.8%	15.0%
CPI + 5% (RA)	0.0%	0.0%	11.8%	12.5%	0.0%
Libor +4% (HF)	46.2%	41.7%	29.4%	25.0%	15.0%
Russell 3000 +3% (PE)	53.8%	58.3%	41.2%	43.8%	40.0%
Russell 3000 +3% 1Q Lag (PE)	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%

Private Equity Benchmark	As of:	
	4/1/18	10/1/10
Russell 3000 +3% 1Q Lag	100.0%	0.0%
Russell 3000 +3%	0.0%	100.0%
	100.0%	100.0%

Hedge Fund Benchmark	As of:
	10/1/10
Libor +4%	100.0%
	100.0%

Inflation Hedge	As of:			
	4/1/18	2/1/17	10/1/16	4/1/16
BBgBarc TIPS	11.11%	12.50%	14.3%	14.3%
Bloomberg Commodity	0.00%	0.00%	0.0%	21.4%
CPI + 5% (RA)	0.00%	0.00%	0.0%	14.3%
Blended Liquid Real Asset	33.34%	0.00%	0.0%	0.0%
Blended Private Real Asset	11.11%	43.75%	35.7%	0.0%
NCREIF ODCE	44.44%	43.75%	50.0%	50.0%
	100.0%	100.0%	100.0%	100.0%

Liquid Real Asset Benchmark	As of:	
	10/1/16	1/1/14
Bloomberg Roll Select Commodity	34.0%	0.0%
S&P Global Large-MidCap Commodity and Resources	33.0%	0.0%
S&P Global Infrastructure	33.0%	0.0%
CPI + 5%	0.0%	100.0%
	100.0%	100.0%

Private Real Asset Benchmark	As of:		
	4/1/18	10/1/16	1/1/14
Bloomberg Roll Select Commodity	0.0%	34.0%	0.0%
S&P Global Large-MidCap Commodity and Resources	0.0%	33.0%	0.0%
50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	100.0%	0.0%	0.0%
S&P Global Infrastructure	0.0%	33.0%	0.0%
CPI + 5%	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%

Private RA Secondary Benchmark	As of:
	9/1/14
Cambridge Associates Private Natural Resources 1 Qtr Lag	50.0%
Cambridge Associates Private Infrastructure 1 Qtr Lag	50.0%
	100.0%

Real Estate Benchmark	As of:		
	1/1/09	6/1/00	7/1/96
10 Year Treasury +2%	0.0%	0.0%	100.0%
NCREIF ODCE	100.0%	0.0%	0.0%
NCREIF Property	0.0%	100.0%	0.0%
	100.0%	100.0%	100.0%

Policy Index and Benchmark History

Period Ending: June 30, 2018

Baillie Gifford Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US	100.0%	0.0%
MSCI EAFE	0.0%	100.0%
	100.0%	100.0%

Baillie Gifford Secondary Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US Growth	100.0%	0.0%
MSCI EAFE Growth	0.0%	100.0%
	100.0%	100.0%

Brigade Secondary Benchmark	As of:	
	8/1/10	
BBgBarc High Yield	50.0%	
Credit Suisse Leveraged Loans	50.0%	
	100.0%	

AQR GRP, 10% Volatility	As of:	
	1/1/17	3/1/11
BBgBarc Aggregate	0.0%	40.0%
BBgBarc Global Aggregate	40.0%	0.0%
MSCI World	60.0%	0.0%
Russell 3000	0.0%	60.0%
	100.0%	100.0%

PanAgora	As of:	
	1/1/17	8/1/14
BBgBarc Aggregate	0.0%	40.0%
BBgBarc Global Aggregate	40.0%	0.0%
MSCI World	60.0%	0.0%
Russell 3000	0.0%	60.0%
	100.0%	100.0%

PIMCO Diversified	As of:	
	9/1/17	
JPMorgan EMBI Global	33.3%	
ICE BofAMLBB-BRatedDvlpdMktsHYHdgdUSD	33.3%	
Global Agg Credit Ex EM USD hedged	33.4%	
	100.0%	

Fee Schedule

Period Ending: June 30, 2018

Baillie Gifford

First \$25 million:	0.60% per annum
Next \$75 million:	0.50% per annum
Next \$300 million:	0.40% per annum
Thereafter:	0.30% per annum

BlackRock-EAFE Equity Index Fund

On All Assets:	0.05% per annum
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BlackRock-Russell 1000 Index Fund

First \$250 million:	0.02% per annum
Thereafter:	0.015% per annum

BlackRock-Intermediate Govt Bond Index Fund

On All Assets:	0.04% per annum
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Brown Brothers Harriman

On All Assets:	0.15% per annum
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Clifton Group

First \$50 million:	0.12% per annum
Next \$100 million:	0.10% per annum
Thereafter:	0.05% per annum
Plus monthly reporting fee of \$1500	

Franklin Templeton Investment

First \$50 million:	0.40% per annum
Next \$50 million:	0.30% per annum
Thereafter:	0.25% per annum

FIAM Bond

First \$50 million:	0.20% per annum
Next \$50 million:	0.175% per annum
Next \$100 million:	0.10% per annum
Thereafter:	0.085% per annum

Parametric

On All Assets:	0.30% per annum
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PIMCO Diversified

On All Assets:	0.75% per annum
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QMA

First \$50 million:	0.55% per annum
Thereafter:	0.50% per annum

Western Asset Management

On All Assets:	0.25% per annum
Performance Fee:	20.00%

Mondrian Investment Partners

Assets Below \$190 million

First \$20 million:	1.00% per annum
Thereafter:	0.33% per annum

Assets Above \$190 million

First \$50 million:	1.00% per annum
Next \$150 million:	0.19% per annum
Thereafter:	0.33% per annum

Name	Primary Benchmark	Rule 1	Rule 2	Rule 3
DE Shaw	Russell 1000	✓	✓	✓
QMA US Small Cap	Russell 2000	--	--	--
Baillie Gifford	MSCI ACWI ex US	✓	✗	✓
Mondrian	MSCI ACWI ex USA Value Gross	✗	✗	✓
Parametric Core	MSCI Emerging Markets Gross	--	--	--
FIAM Bond	BBgBarc US Aggregate TR	✓	✓	✓
Western TRU	3-Month Libor Total Return USD	--	--	--
Angelo Gordon Opportunistic	BBgBarc US Aggregate TR	--	--	--
Angelo Gordon STAR	BBgBarc US Aggregate TR	✓	--	✓
Beach Point Select	BBgBarc BA Intermediate HY	--	--	--
Brigade Capital	BBgBarc BA Intermediate HY	✓	✓	✗
PIMCO Diversified	Blended PIMCO Diversified Index	--	--	--
Franklin Templeton	BBgBarc Multiverse TR	--	--	--
TCP Direct Lending VIII	Cliffwater Direct Lending Index	--	--	--
White Oak Yield	Cliffwater Direct Lending Index	--	--	--
Private Equity	Blended Private Equity Index	✓	--	✓
AQR DELTA XN	Libor 1 month +4%	✗	✗	✗
Aberdeen Standard GARS	Libor 1 month +4%	--	--	--
SSgA Custom Real Asset	Blended Liquid Real Asset Index	--	--	--

Rule 1 - Manager has underperformed the benchmark index for the five year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period.

Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive

Name	Primary Benchmark	Rule 1	Rule 2	Rule 3
DE Shaw	Russell 1000	✓	✓	✓
QMA US Small Cap	Russell 2000	--	--	--
Baillie Gifford	MSCI ACWI ex US	✓	✓	✓
Mondrian	MSCI ACWI ex USA Value Gross	✓	FB	✓
Parametric Core	MSCI Emerging Markets Gross	--	--	--
FIAM Bond	BBgBarc US Aggregate TR	✓	✓	✓
Western TRU	3-Month Libor Total Return USD	--	--	--
Angelo Gordon Opportunistic	BBgBarc US Aggregate TR	--	--	--
Angelo Gordon STAR	BBgBarc US Aggregate TR	✓	--	✓
Beach Point Select	BBgBarc BA Intermediate HY	--	--	--
Brigade Capital	BBgBarc BA Intermediate HY	✓	✓	FB
PIMCO Diversified	Blended PIMCO Diversified Index	--	--	--
Franklin Templeton	BBgBarc Multiverse TR	--	--	--
TCP Direct Lending VIII	Cliffwater Direct Lending Index	--	--	--
White Oak Yield	Cliffwater Direct Lending Index	--	--	--
Private Equity	Blended Private Equity Index	✓	--	✓
AQR DELTA XN	Libor 1 month +4%	FB	FB	FB
Aberdeen Standard GARS	Libor 1 month +4%	--	--	--
SSgA Custom Real Asset	Blended Liquid Real Asset Index	--	--	--

Rule 1 - Manager has underperformed the benchmark index for the five year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period.

Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive

Manager Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

	Apr	May	June	2nd Qtr. 2018	Difference	1st Qtr. 2018	Difference	4th Qtr. 2017	Difference	3rd Qtr. 2017	Difference	2nd Qtr. 2017	Difference
Verus	0.35%	2.55%	0.65%	3.59%		-0.69%		6.58%		4.49%		3.07%	
BlackRock Russell 1000	0.35%	2.55%	0.65%	3.59%	0.00%	-0.69%	0.00%	6.59%	0.00%	4.49%	0.00%	3.07%	0.00%
Russell 1000 Index	0.34%	2.55%	0.65%	3.57%		-1.19%		4.90%		4.48%		3.07%	
Verus	0.35%	3.71%	0.22%	4.31%		-0.32%		6.38%		7.60%		2.79%	
D.E. Shaw	0.36%	3.71%	0.23%	4.32%	-0.01%	-0.31%	-0.01%	6.39%	-0.01%	7.60%	0.00%	2.79%	0.00%
Russell 1000 Index	0.34%	2.55%	0.65%	3.57%		-1.19%		4.90%		4.48%		3.07%	
Verus	0.03%	6.14%	0.76%	6.98%		-0.51%		2.34%		5.94%		1.82%	
QMA US Small Cap (Net)	0.03%	6.14%	0.76%	6.98%	0.00%	-0.51%	0.00%	2.34%	0.00%	5.95%	-0.01%	1.82%	0.00%
Russell 2000 Index	0.86%	6.07%	0.72%	7.75%		-0.08%		3.34%		5.67%		2.46%	
Verus	0.31%	0.41%	-0.36%	0.36%		-0.75%		4.95%		5.14%		8.83%	
Baillie Gifford (Net)	0.27%	0.50%	-0.42%	0.35%	0.00%	-0.74%	-0.01%	4.92%	0.03%	5.12%	0.02%	8.80%	0.03%
MSCI ACWI ex US	1.68%	-2.21%	-1.84%	-2.39%		-1.08%		5.06%		6.25%		5.99%	
MSCI ACWI ex US Growth	0.83%	-0.49%	-1.56%	-1.23%		-0.80%		5.81%		6.39%		7.74%	
Verus	2.57%	-2.14%	-1.21%	-0.83%		-1.59%		4.26%		5.47%		6.32%	
BlackRock EAFE Equity	2.57%	-2.14%	-1.21%	-0.83%	0.00%	-1.59%	0.00%	4.26%	0.00%	5.47%	0.00%	6.32%	0.00%
MSCI EAFE (Net)	2.28%	-2.25%	-1.22%	-1.24%		-1.53%		4.23%		5.40%		6.12%	
MSCI EAFE (Gross)	2.39%	-2.11%	-1.19%	-0.97%		-1.41%		4.27%		5.47%		6.37%	
Verus	2.77%	-4.19%	-1.92%	-3.43%		-1.24%		4.06%		5.05%		4.26%	
Mondrian(Net)	2.76%	-4.20%	-1.90%	-3.43%	0.00%	-1.22%	-0.02%	4.02%	0.04%	5.08%	-0.03%	4.29%	-0.03%
MSCI ACWI -ex US Value Index	2.55%	-3.95%	-2.12%	-3.59%		-1.36%		4.31%		6.11%		4.33%	
MSCI ACWI -ex US	1.68%	-2.21%	-1.84%	-2.39%		-1.08%		5.06%		6.25%		5.99%	
Verus	-1.14%	-5.06%	-3.55%	-9.47%		1.51%		5.24%		6.91%		3.44%	
Parametric Core	-1.12%	-5.04%	-3.54%	-9.42%	-0.05%	1.56%	-0.05%	5.30%	-0.06%	6.96%	-0.05%	3.47%	-0.03%
MSCI EM Market Index	-0.42%	-3.52%	-4.09%	-7.86%		1.47%		7.50%		8.04%		6.38%	

Manager Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

	Apr	May	June	2nd Qtr. 2018	Difference	1st Qtr. 2018	Difference	4th Qtr. 2017	Difference	3rd Qtr. 2017	Difference	2nd Qtr. 2017	Difference
Verus	-0.55%	0.66%	0.02%	0.12%		-0.67%		-0.36%		0.40%		0.73%	
BlackRock Intermediate Govt	-0.55%	0.66%	0.02%	0.12%	0.00%	-0.67%	0.00%	-0.35%	-0.01%	0.41%	-0.01%	0.73%	0.00%
BBgBarc US Govt Int Index	-0.57%	0.65%	-0.01%	0.06%		-0.73%		-0.41%		0.85%		1.45%	
Verus	-0.64%	0.57%	0.09%	0.02%		-1.31%		0.47%		1.13%		1.36%	
FIAM Bond	-0.64%	0.57%	0.09%	0.02%	0.00%	-1.31%	0.00%	0.48%	-0.01%	1.13%	0.00%	1.36%	0.00%
BBgBarc US Aggregate Index	-0.74%	0.71%	-0.12%	-0.16%		-1.46%		0.39%		0.85%		1.45%	
Verus	-0.96%	-1.19%	-0.79%	-2.90%		-0.69%		1.51%		2.09%		3.54%	
Western TRU	-0.96%	-1.19%	-0.79%	-2.90%	0.00%	-0.69%	0.00%	1.51%	0.00%	2.09%	0.00%	3.54%	0.00%
3-Month Libor Total Return USD Index	0.20%	0.20%	0.19%	0.59%		0.46%		0.39%		0.34%		0.31%	
BBgBarc US Aggregate Index	-0.74%	0.71%	-0.12%	-0.16%		-1.46%		0.39%		0.85%		1.45%	
Verus (Net)				9.49%		5.70%		11.05%		-0.59%		4.18%	
Angelo Gordon Opportunistic				9.49%	0.00%	5.70%	0.00%	11.05%	0.00%	-0.59%	0.00%	4.18%	0.00%
BBgBarc US Aggregate Index				-0.16%		-1.46%		0.39%		0.85%		1.45%	
Verus (Net)				4.83%		7.54%		3.13%		4.96%		6.13%	
Angelo Gordon STAR Fund (Net)				4.83%	0.00%	7.54%	0.00%	3.13%	0.00%	4.96%	0.00%	6.13%	0.00%
BBgBarc US Aggregate Index				-0.16%		-1.46%		0.39%		0.85%		1.45%	
Verus	0.85%	0.57%	0.58%	2.01%		1.14%		1.79%		2.07%		1.95%	
Beach Point Select (Net)	0.85%	0.57%	0.58%	2.01%	0.00%	1.14%	0.00%	1.79%	0.00%	2.07%	0.00%	1.95%	0.00%
BBgBarc BA Intermediate HY	0.18%	-0.26%	0.12%	0.04%		-1.49%		0.15%		1.72%		2.50%	
Verus	0.41%	0.39%	0.73%	1.53%		1.05%		0.33%		1.40%		1.83%	
Brigade Capital (Net)	0.41%	0.39%	0.75%	1.56%	-0.03%	1.03%	0.02%	0.28%	0.05%	1.44%	-0.04%	1.77%	0.06%
BBgBarc BA Intermediate HY	0.18%	-0.26%	0.12%	0.04%		-1.49%		0.15%		1.72%		2.50%	
50% BBgBarc HY/ 50% Bank Loan	0.57%	0.08%	0.25%	0.91%		0.36%		0.82%		1.52%		1.46%	
Verus	-0.23%	-0.21%	-0.30%	-0.73%		-0.64%		0.82%					
PIMCO Diversified	-0.23%	-0.21%	-0.30%	-0.73%	0.00%	-0.64%	0.00%	0.82%	0.00%				
Blended PIMCO Diversified Index	-0.43%	-0.35%	-0.36%	-1.13%		-1.26%		0.75%					
BBgBarc BA Intermediate HY	0.18%	-0.26%	0.12%	0.04%		-1.49%		0.15%					
Verus	0.63%	-3.43%	-1.55%	-4.32%		2.01%		-1.31%		1.25%		-0.98%	
Franklin Templeton Investments	0.63%	-3.43%	-1.55%	-4.32%	0.00%	2.01%	0.00%	-1.32%	0.01%	1.25%	0.00%	-0.98%	0.00%
BBgBarc Multiverse Index	-1.55%	-0.85%	-0.46%	-2.83%		1.29%		1.06%		1.88%		2.64%	
Verus				2.15%		1.46%		4.67%		2.69%		2.65%	
TCP Direct Lending VIII				2.15%	0.00%	1.46%	0.00%	4.67%	0.00%	2.69%	0.00%	2.65%	0.00%
Cliffwater Direct Lending Index				2.18%		2.02%		1.97%		1.72%		2.50%	

Manager Performance Comparison (Gross of Fees)

Period Ending: June 30, 2018

	Apr	May	June	2nd Qtr. 2018	Difference	1st Qtr. 2018	Difference	4th Qtr. 2017	Difference	3rd Qtr. 2017	Difference	2nd Qtr. 2017	Difference
Verus				0.00%		2.17%		0.51%		-4.64%			
White Oak Yield				0.00%	0.00%	2.17%	0.00%	0.51%	0.00%	-4.64%	0.00%		
Cliffwater Direct Lending Index				2.18%		2.02%		1.97%		1.72%			
Verus	0.34%	0.58%	-1.36%	-0.45%		-1.21%		4.72%		4.47%		1.46%	
AQR GRP, 10% Volatility (Net)	0.34%	0.58%	-1.36%	-0.45%	0.00%	-1.21%	0.00%	4.72%	0.00%	4.47%	0.00%	1.46%	0.00%
60% R3000/ 40% BBgBarc Agg	0.54%	0.53%	0.05%	1.12%		-0.67%		3.61%		3.21%		2.39%	
60% MSCI World/ 40% BBgBarc Glb	-0.07%	1.98%	0.34%	2.26%		-0.91%		3.93%		3.08%		2.80%	
Verus	0.06%	1.19%	-1.22%	0.02%		-1.58%		4.38%		2.98%		1.60%	
PanAgora (Net)	0.06%	1.19%	-1.22%	0.02%	0.00%	-1.58%	0.00%	4.38%	0.00%	2.98%	0.00%	1.60%	0.00%
60% R3000/ 40% BBgBarc Agg	0.54%	0.53%	0.05%	1.12%		-0.67%		3.61%		3.21%		2.39%	
60% MSCI World/ 40% BBgBarc Glb	-0.07%	1.98%	0.34%	2.26%		-0.91%		3.93%		3.08%		2.80%	
Verus	-0.18%	-2.39%	-3.62%	-6.09%		-3.86%		1.33%		3.99%		-1.19%	
AQR DELTA XN (Net)	-0.18%	-2.39%	-3.62%	-6.09%	0.00%	-3.86%	0.00%	1.33%	0.00%	3.99%	0.00%	-1.19%	0.00%
Labor + 4%	0.50%	0.50%	0.50%	1.51%		1.29%		1.46%		1.22%		1.29%	
Verus	-0.32%	-1.68%	-0.19%	-2.18%		-1.88%		1.87%		0.34%		0.81%	
Aberdeen Standard GARS (Net)	-0.32%	-1.68%	-0.19%	-2.18%	0.00%	-1.88%	0.00%	1.87%	0.00%	0.34%	0.00%	0.81%	0.00%
Labor + 4%	0.50%	0.50%	0.50%	1.51%		1.29%		1.46%		1.22%		1.29%	
Verus				1.86%		2.42%		2.29%		1.48%		1.88%	
INVESCO Real Estate				1.85%	0.01%	2.46%	-0.04%	2.26%	0.00%	1.46%	0.02%	1.88%	0.00%
NCREIF NFI ODCE Index				2.05%		2.20%		2.07%		1.87%		1.70%	
Verus				1.97%		2.67%		2.09%		5.56%		1.85%	
Invesco US Val IV				1.97%	0.00%	2.67%	0.00%	2.09%	0.00%	5.56%	0.00%	1.85%	0.00%
NCREIF NFI ODCE Index				2.05%		2.20%		2.07%		1.87%		1.70%	
NCREIF CEVA 1Q Lag - NET				2.13%		3.41%		3.00%		2.61%		1.36%	
Verus (net)				1.25%		1.09%		2.52%					
PGIM RE US Debt Fund (net)				1.25%	0.00%	1.09%	0.00%	2.52%	0.00%				
NCREIF NFI ODCE Index				2.05%		2.20%		2.07%					
Verus	0.07%	0.34%	0.37%	0.78%		-0.25%		1.25%		0.76%		-0.58%	
Brown Brothers Harriman	0.08%	0.34%	0.36%	0.78%	0.00%	-0.27%	0.02%	1.26%	0.00%	0.76%	0.00%	-0.60%	0.02%
BBgBarc U.S Tips	-0.06%	0.43%	0.40%	0.77%		-0.79%		1.26%		0.86%		-0.40%	

1 MSCI

1.1 MSCI US MARKET BREAKPOINTS

Break Point*	Companies included
Large Cap	1-200
Medium-Large Cap	201-550
Medium Cap	551-750
Medium-Small Cap	751-2500
Small Cap	2501+

*MSCI only categorizes equities per size into large, mid and small cap. For InvestorForce Report analytics coherence regarding domestic benchmarks the buffer zones of the mid-cap category are used to determine Medium-Large and Medium-Small Cap categories.

As Of	Large Cap	Medium Large Cap	Medium Cap	Medium Small Cap	Small Cap
06/30/2018	17.921	10.888	5.334	3.023	0
03/31/2018	17.921	10.888	5.334	3.023	0
12/31/2017	17.679	9.979	5.011	2.793	0
9/30/2017	17.696	9.979	5.011	2.793	0
6/30/2017	15.834	9.267	4.517	2.573	0
3/31/2017	15.834	9.267	4.517	2.573	0
12/31/2016	15.239	9.375	4.416	2.520	0
9/30/2016	15.239	9.375	4.416	2.520	0
6/30/2016	15.358	9.43	4.548	2.591	0
3/31/2016	15.358	9.43	4.548	2.591	0
12/31/2015	16.507	9.968	5.069	2.917	0
9/30/2015	16.507	9.968	5.069	2.917	0
6/30/2015	15.288	9.09	4.506	2.596	0
3/31/2015	15.356	9.083	4.491	2.577	0
12/31/2014	15.356	9.083	4.491	2.577	0

Number in billion USD

InvestorForce Report reflects changes in the MSCI breakpoints once MSCI publishes new breakpoints. For months when no new breakpoints are published always the last breakpoints are applied. Changes usually but always happen around re-balancing of the indexes. Some index reviews do not contain changes to the market-cap breakpoints.

1.2 MSCI DEVELOPED AND EMERGING MARKET BREAKPOINTS

In case of MSCI Indexes to define the Size - Segment Indexes for a market, the following free float - adjusted market capitalization Market Coverage Target Ranges are applied to the Market Investable Equity Universe:

Break Point	Companies included
Large Cap Index	70% ±5%
Standard Index*	85% ±5%
Investable Market Index**	99%+1% or -0.5%

* Standard Index (Large+Mid)

**Investable Market Index (Large+Mid+Small)

MSCI Country Classification can be found here: <https://www.msci.com/market-classification>

For Emerging Markets, the Global Minimum Size Reference is set at *one-half* the corresponding level of full market capitalization used for the Developed Markets for each size-segment.

As Of	Large Cap DM	Large Cap EM	Medium Cap DM	Medium Cap EM	Small Cap
6/30/2018	17.201	8.6005	6.374	3.187	0
3/31/2018	16.392	8.196	6.106	3.053	0
12/31/2017	16.392	8.196	6.106	3.053	0
9/30/2017	15.008	7.504	5.500	2.750	0
6/30/2017	15.008	7.504	5.500	2.750	0
3/31/2017	14.361	7.180	5.077	2.538	0
12/31/2016	14.361	7.180	5.077	2.538	0
9/30/2016	14.180	7.090	5.076	2.538	0
6/30/2016	14.180	7.090	5.076	2.538	0
3/31/2016	14.077	7.0385	5.046	2.523	0
12/31/2015	14.077	7.0385	5.046	2.5230	0
9/30/2015	14.883	7.4415	5.359	2.6795	0
6/30/2015	14.883	7.4415	5.359	2.6795	0
3/31/2015	13.368	6.684	4.781	2.3905	0
12/31/2014	13.368	6.684	4.781	2.3905	0

Number in billion USD

InvestorForce Report shows changes in the MSCI breakpoints once MSCI publishes a new one. For months when no new breakpoints are published always the last breakpoint is applied. Changes usually happen around re-balancing of the indexes.

2 RUSSELL US BREAKPOINTS

The market capitalization breakpoints that appear in the Market Capitalization Chart are defined by the Russell 3000 Index and change for each period end. Russell calculated the total market capitalization of each security for the end of the period, based on the total shares and price, to determine whether it is large enough for inclusion in one or more of the Russell Breakpoints.

Once the market capitalization for each security is determined, each security is then placed in the appropriate market capitalization breakpoint. A market capitalization breakpoint is determined by the break between the companies below.

Break Point	Companies included
Large Cap	50 Largest US Companies
Medium Large Cap	Next largest 150 US Companies
Medium Cap	Next largest 300 US Companies
Medium Small Cap	Next largest 500 US Companies
Small Cap	All US Companies below 1,000 largest

After the breakpoints are determined by the ranges above, new members are assigned on the basis of the breakpoints and existing members are reviewed to determine if they fall within a cumulative 5% market cap range around the new market capitalization breakpoints. If an existing securities market cap falls within this 5%, it will remain in its current index rather than move into a new market capitalization based index.

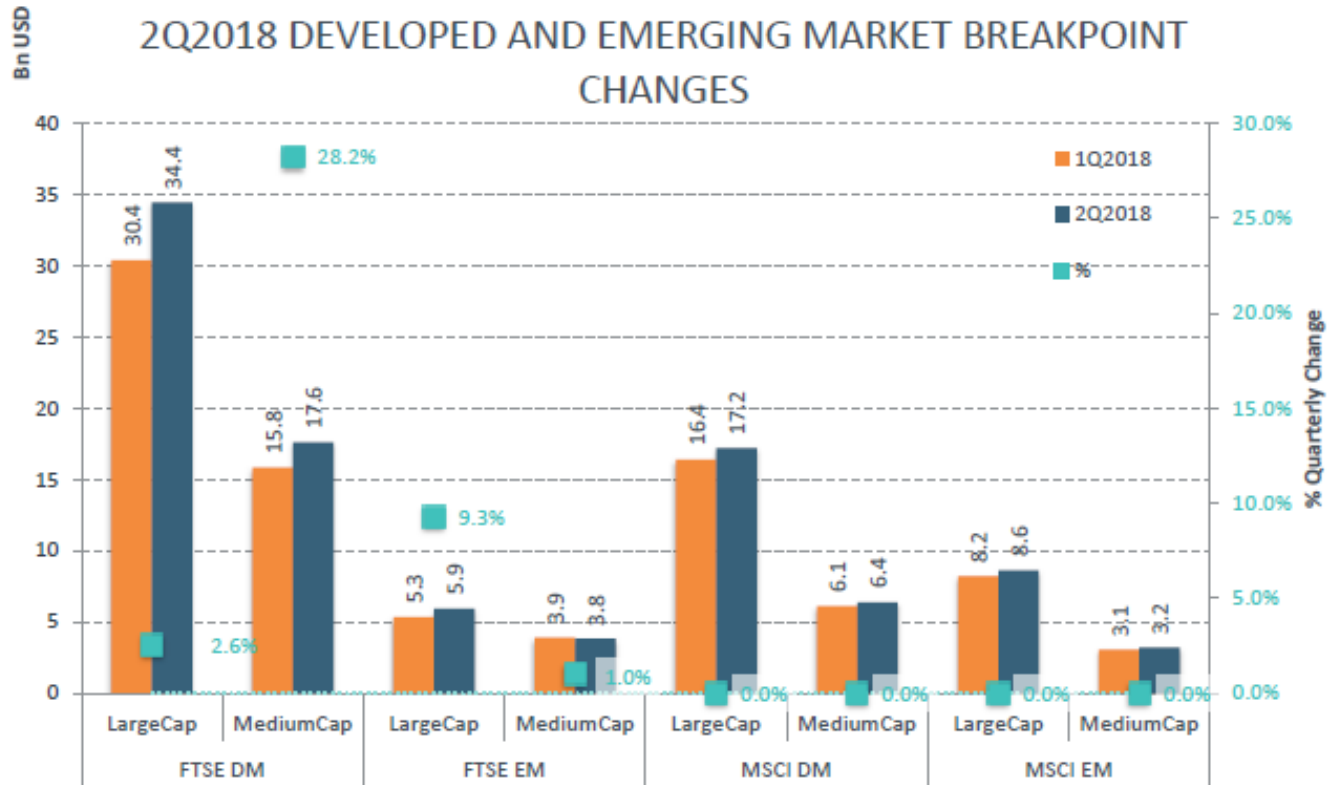
Market Capitalization Breakpoints

Period Ending: June 30, 2018

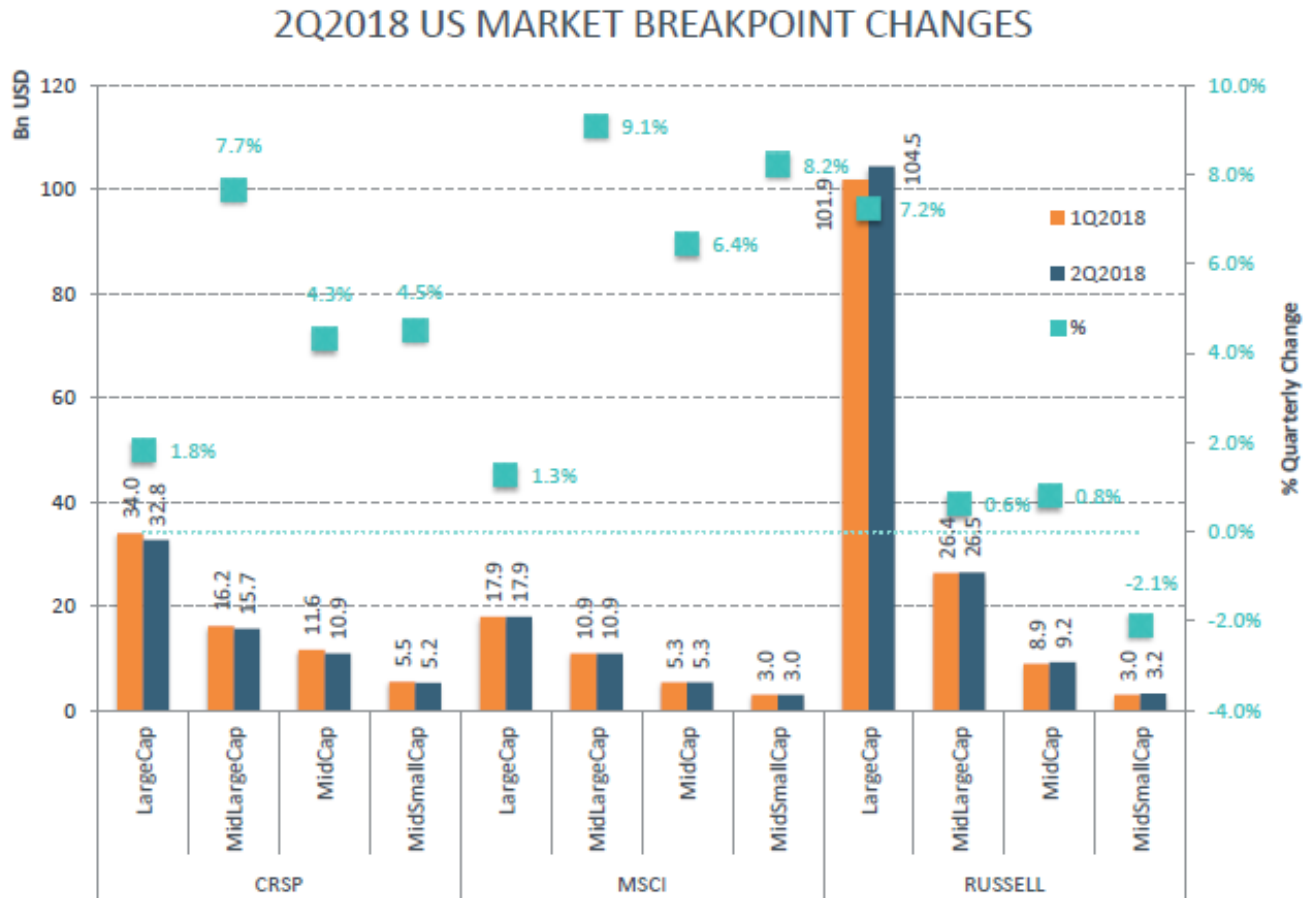
As Of	Large Cap	Medium Large Cap	Medium Cap	Medium Small Cap	Small Cap
6/30/2018	104.455	26.511	9.202	3.171	0
3/31/2018	101.922	26.399	8.890	2.958	0
12/31/2017	95.036	26.237	8.819	3.021	0
9/30/2017	93.539	24.882	8.344	2.935	0
6/30/2017	87.845	25.481	8.204	2.859	0
3/31/2017	89.968	25.293	8.241	2.737	0
12/31/2016	84.960	23.168	7.890	2.702	0
9/30/2016	78.745	23.385	7.394	2.533	0
6/30/2016	77.349	22.250	7.1432	2.444	0
3/31/2016	83.360	22.414	7.435	2.395	0
12/31/2015	90.075	24.308	8.141	2.936	0
9/30/2015	88.944	23.139	7.993	2.946	0
6/30/2015	92.87	25.07	8.797	3.352	0
3/31/2015	93.082	25.494	8.794	3.384	0
12/31/2014	89.92	25.19	8.51	3.29	0
9/30/2014	84.51	24.44	7.97	3.04	0
6/30/2014	80.39	23.62	8.07	3.24	0
3/31/2014	76.77	23.15	7.83	3.06	0
12/31/2013	77.11	22.27	7.65	3.03	0
9/30/2013	72.4	19.93	7.15	2.71	0
6/30/2013	68.47	19.36	6.48	2.46	0
3/31/2013	64.31	18.64	6.39	2.39	0
12/31/2012	58.45	16.8	5.75	2.13	0
9/30/2012	57.06	16.48	5.49	2.08	0
6/30/2012	55.65	16.13	5.14	1.99	0
3/31/2012	57.58	16.43	5.55	2.13	0
12/31/2011	51.97	14.66	4.93	1.93	0
9/30/2011	45.35	13.88	4.38	1.66	0
6/30/2011	54.25	15.95	5.66	2.16	0
3/31/2011	52.22	15.69	5.7	2.16	0
12/31/2010	49.54	14.8	5.16	2.04	0
9/30/2010	42.83	13.13	4.64	1.8	0
6/30/2010	39.95	11.58	4.1	1.59	0

Numbers are billions USD

BREAKPOINT TRENDS



MSCI is releasing market capitalization breakpoints less frequently than FTSE, hence the market capitalization breakpoints are longer in effect. This could result in no change.



MSCI is releasing market capitalization breakpoints less frequently than others, hence the market capitalization breakpoints are longer in effect. This could result in no change.



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
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

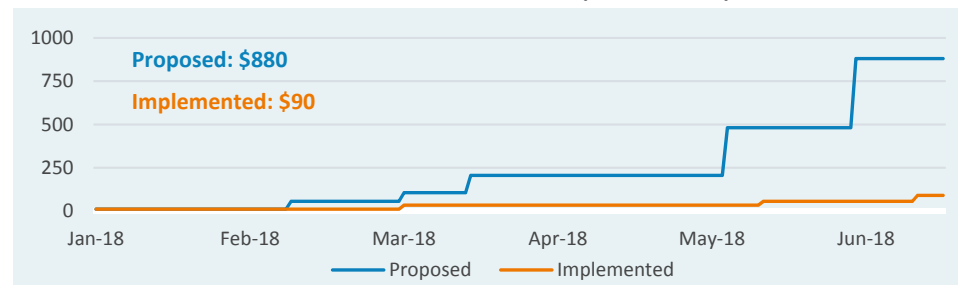
“Investors are getting worried about an inverted yield curve”

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

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

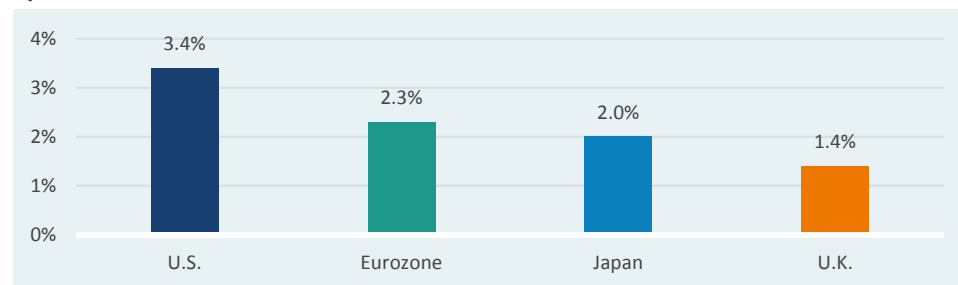
Article Source: Bloomberg, April 18th, 2018

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



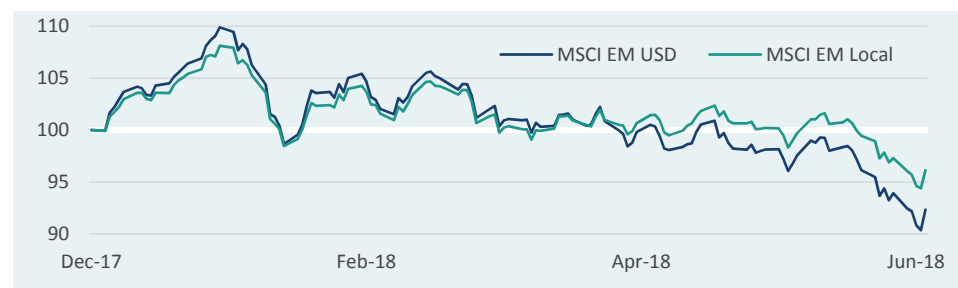
Source: Verus, as of 7/6/18

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

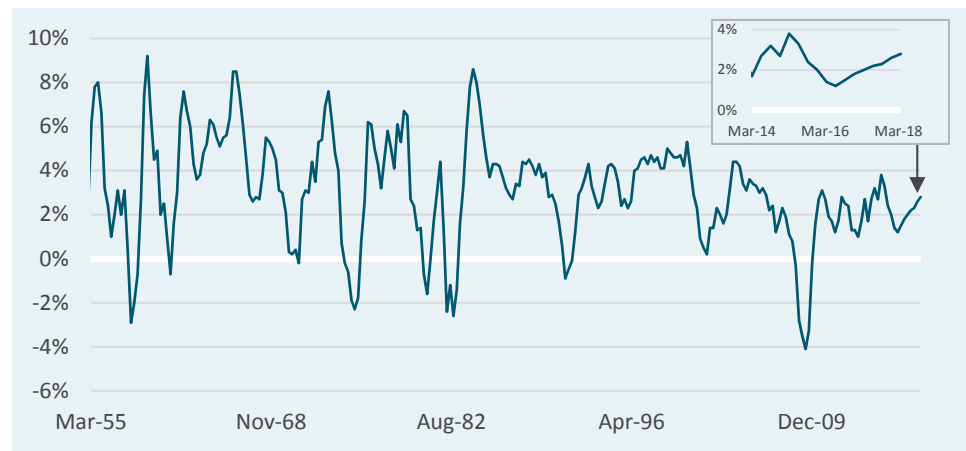
Real GDP growth rose 2.8% from the previous year in the first quarter (2.0% quarterly annualized rate). After a strong fourth quarter, consumers were more conservative with their purchases. Consumer spending contributed only 0.6% to the first quarter growth rate, compared to a 2.8% contribution in the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

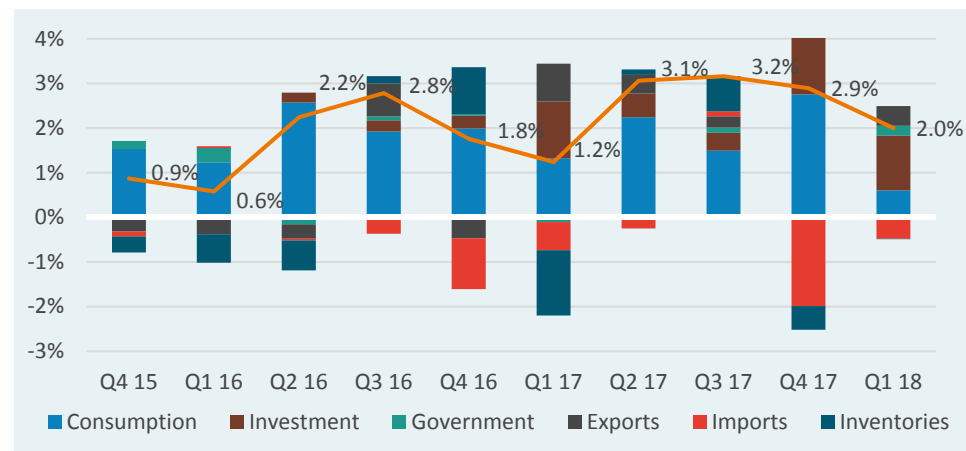
While much of the tax cut windfall has been returned to shareholders via share buybacks there has been a meaningful pick up in corporate fixed investment to more normal levels, which may help sustain growth in the coming quarters.

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

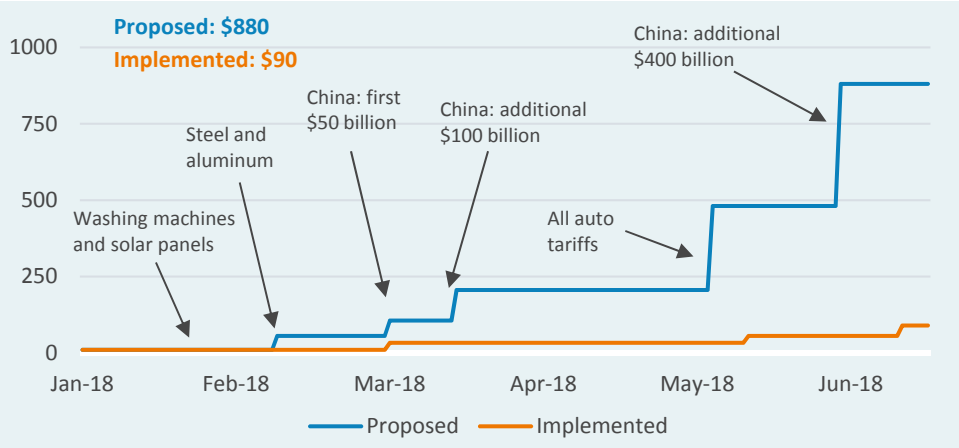
The war of words over trade between the U.S. and much of the rest of the world intensified in recent months, particularly with China. A first round of 10% tariffs on \$34 billion of Chinese goods was implemented on July 6th.

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.

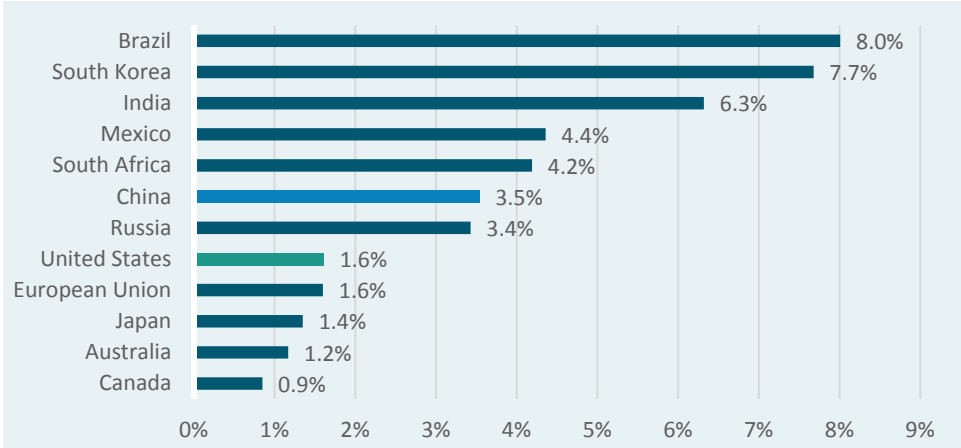
Tariffs in place so far are likely to have a minimal impact on the global economy. We believe that financial markets may be more sensitive to an escalation in the trade conflict than the actual economic impact. Much of the discussion on trade has ignored the fact that the U.S. has upheld less protectionist 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

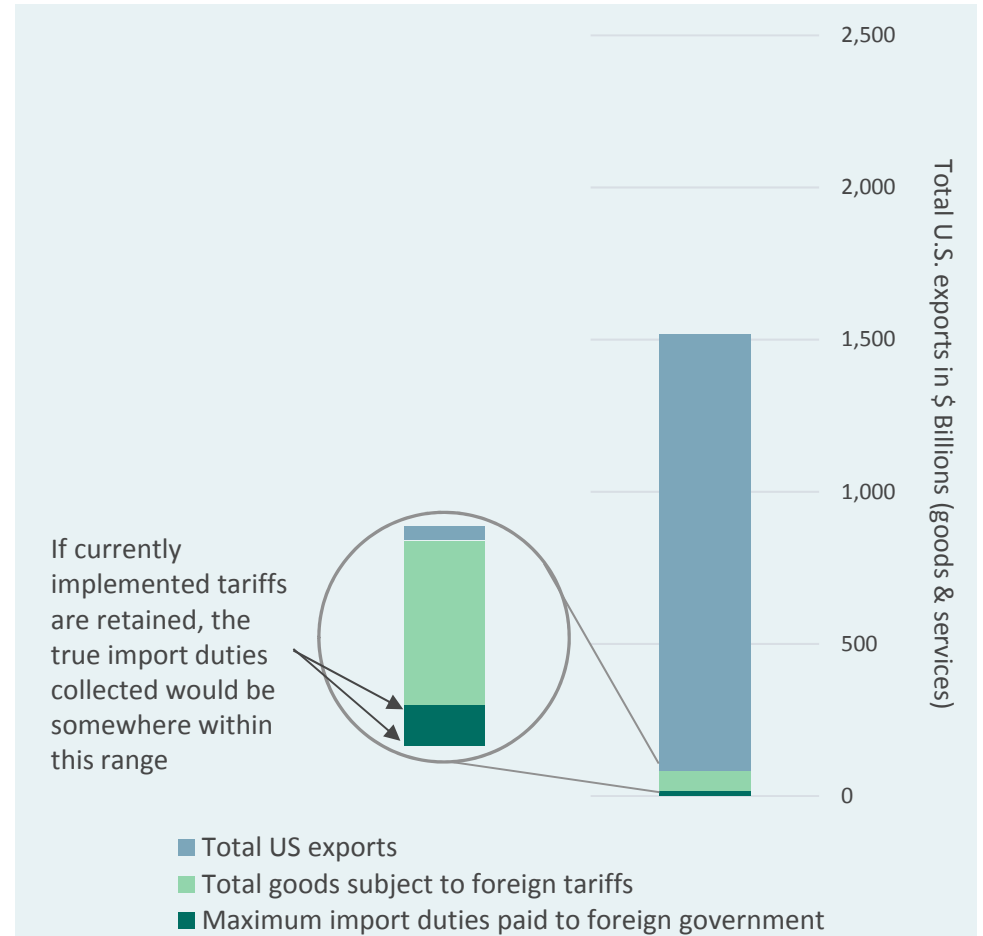
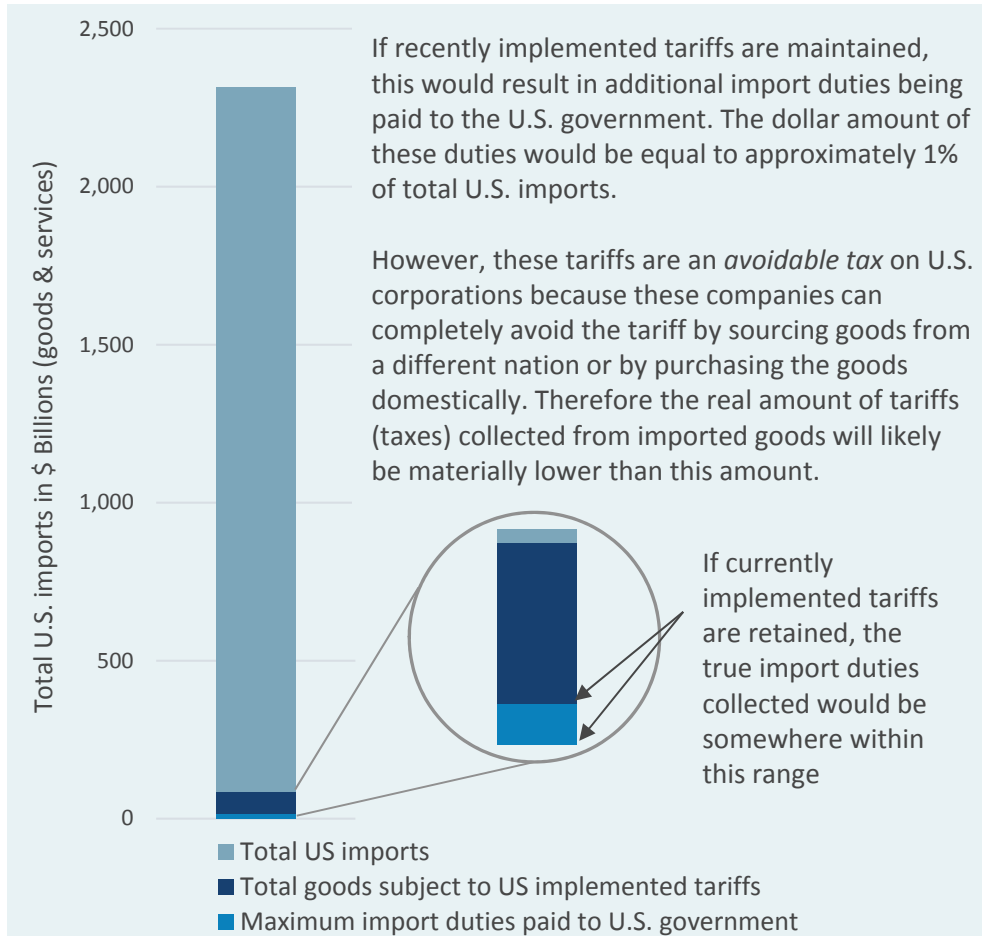
AVERAGE TARIFF RATE



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%.

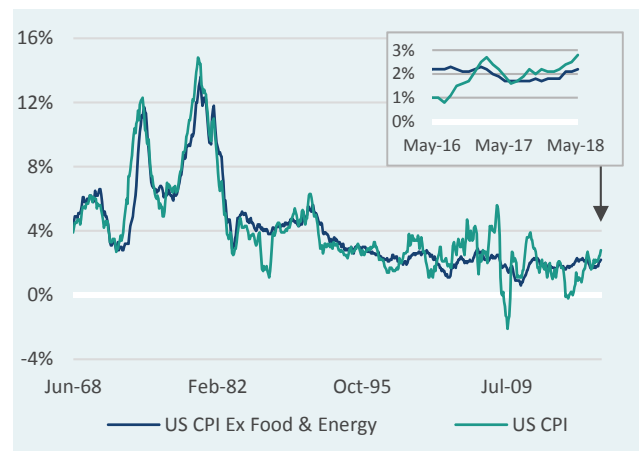
While investors' concerns over inflation have bubbled up occasionally throughout the year, we have yet to see a material increase in price levels. Consumer price inflation

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.

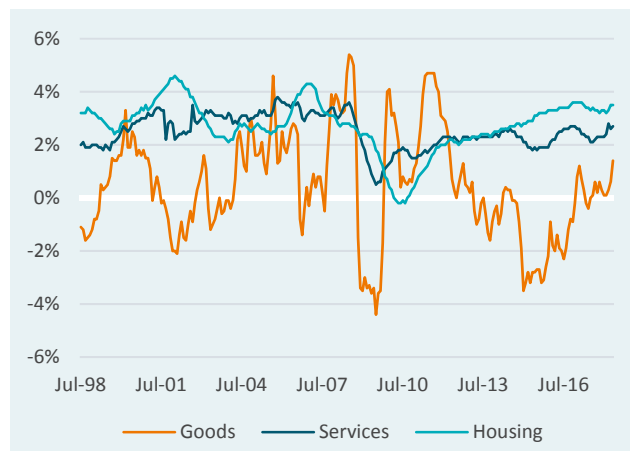
Core inflation remained modest

U.S. CPI (YOY)



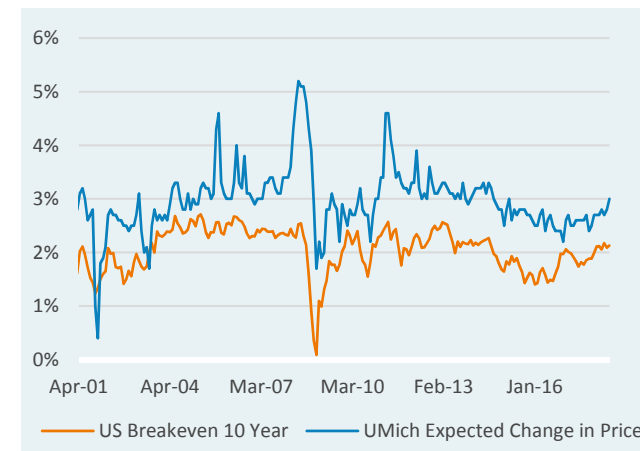
Source: FRED, as of 5/31/18

INFLATION BY PRODUCT TYPE (YOY)



Source: Bloomberg, as of 5/31/18

INFLATION EXPECTATIONS



Source: Bloomberg, as of 6/30/18

Labor market

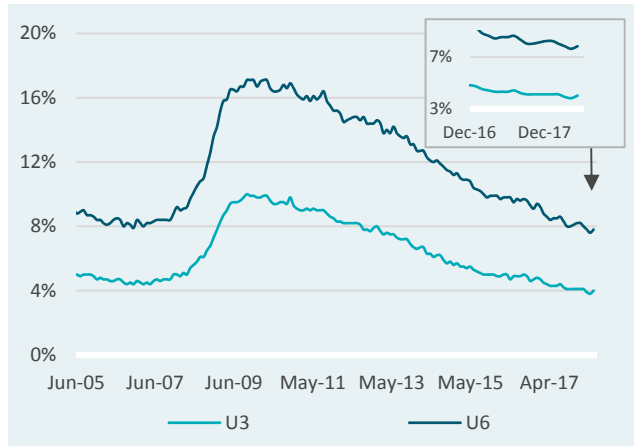
Conditions in the U.S. labor market tightened further in Q2 as unemployment moved from 4.1% to 4.0%. The unemployment rate that includes discouraged and part time workers fell from 8.0% to 7.8%. Despite these headline readings, we believe there may be considerable slack in the U.S. labor force which 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).

Traditional unemployment metrics may understate labor market slack

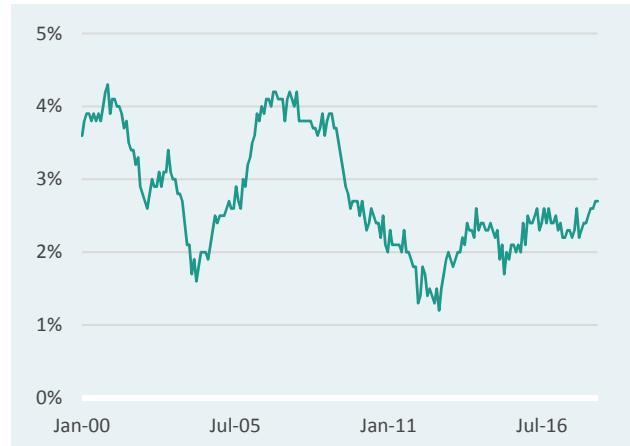
Average hourly earnings growth ticked up to 2.7%, continuing a mild positive trend since the bottom of the U.S. recession.

UNEMPLOYMENT RATE



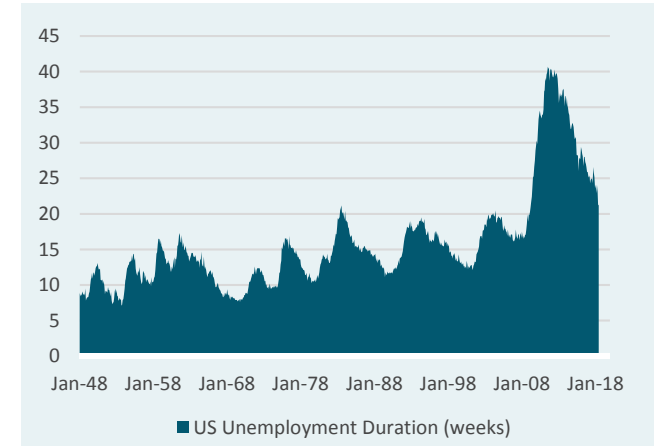
Source: FRED, as of 6/30/18

AVERAGE HOURLY EARNINGS (YOY)



Source: Bloomberg, as 5/31/18

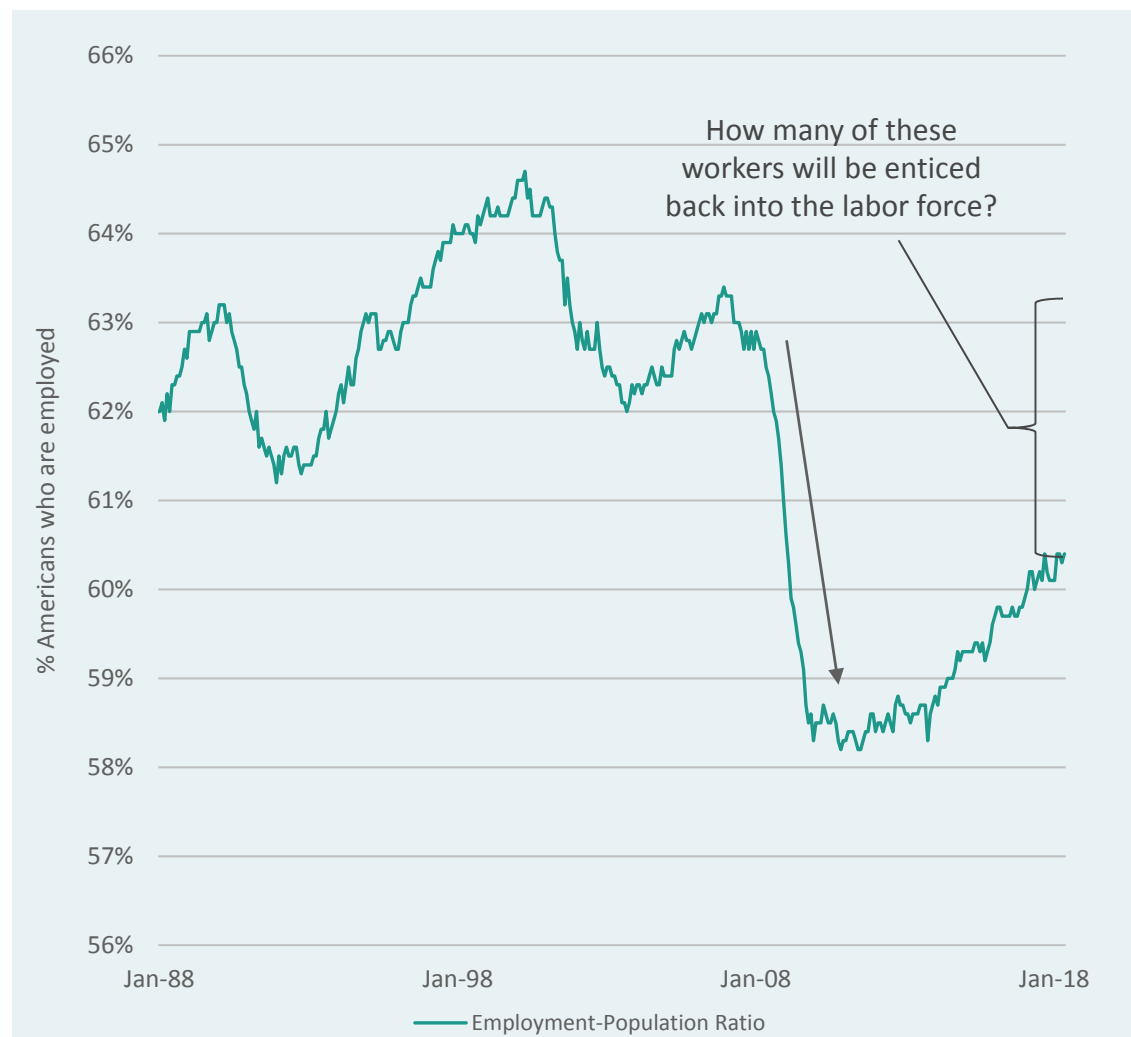
UNEMPLOYMENT DURATION



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.

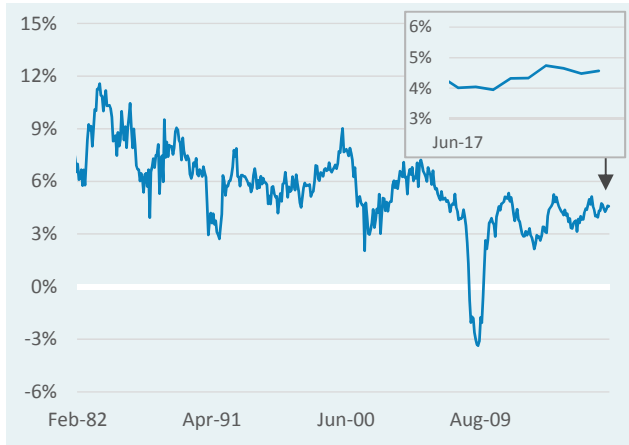
Consumers have also been timid with credit use during the current cycle. Households deleveraged following the financial crisis primarily through less mortgage debt, although this trend has flattened out more recently. Despite this

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.

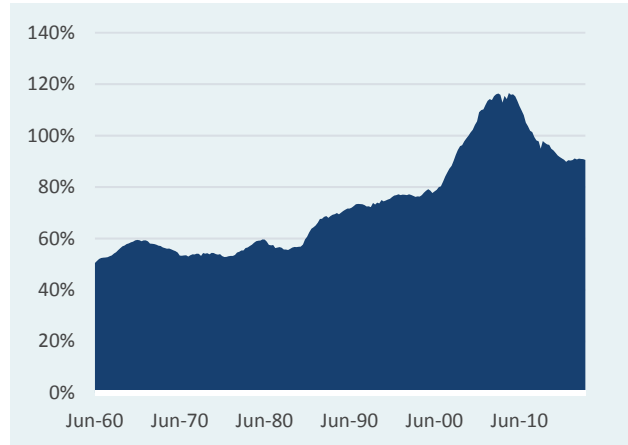
Economic conditions are still supportive of consumer spending

CONSUMER SPENDING GROWTH (YOY)



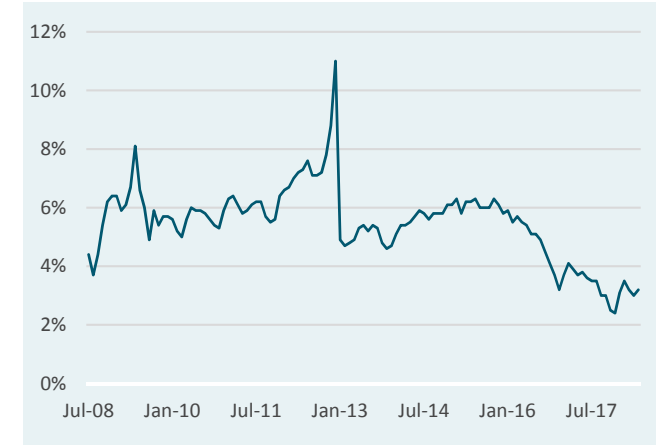
Source: Bloomberg, as of 5/31/18

HOUSEHOLD DEBT (% OF DISPOSABLE INCOME)



Source: Bloomberg, as of 3/31/18

PERSONAL SAVINGS RATE



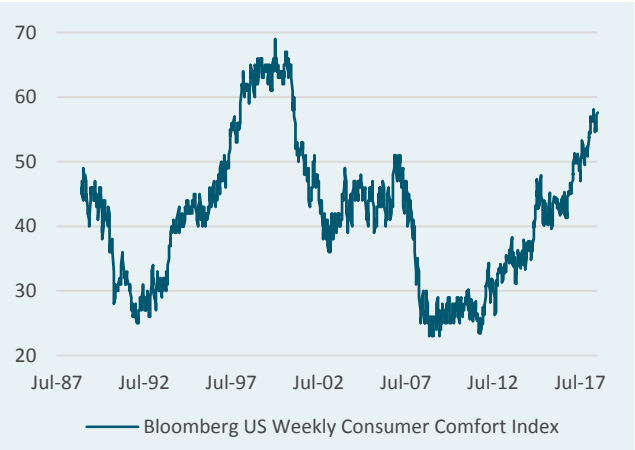
Source: FRED, as of 5/31/18

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.

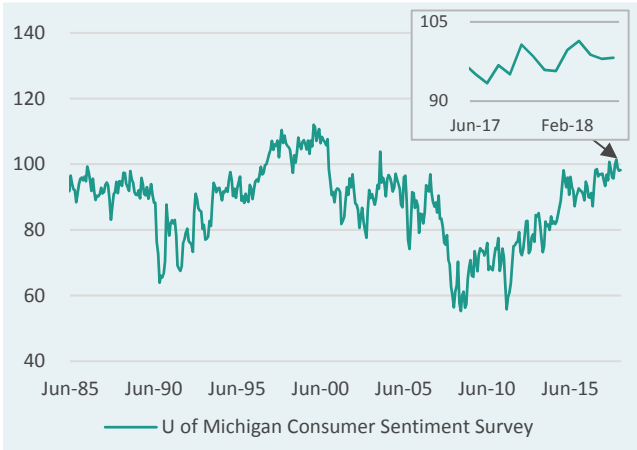
The NFIB Small Business Optimism Index was 107.2 at the end of the quarter – its 6th highest reading in survey history. NFIB noted that “small business owners continue to report astounding optimism as they celebrate strong sales, the creation of jobs, and more profits.” Business owners are concerned 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



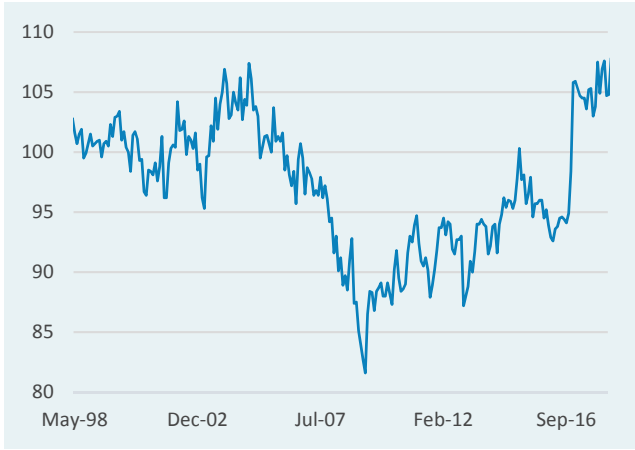
Source: Bloomberg, as of 6/30/18 (see Appendix)

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

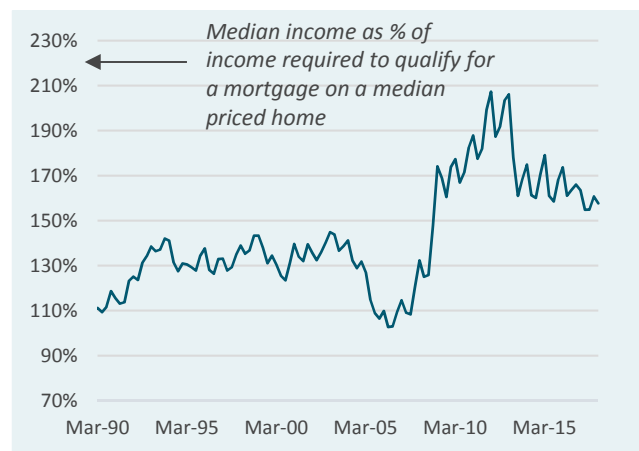
Single-family home prices have risen steadily thus far this year. As of April, the Case-Shiller National Home Price Index was up 6.4% from the previous year, and was 8.8% above the pre-crisis peak. Since the housing market bottomed in February of 2012, home prices have jumped by nearly 50% while personal 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.

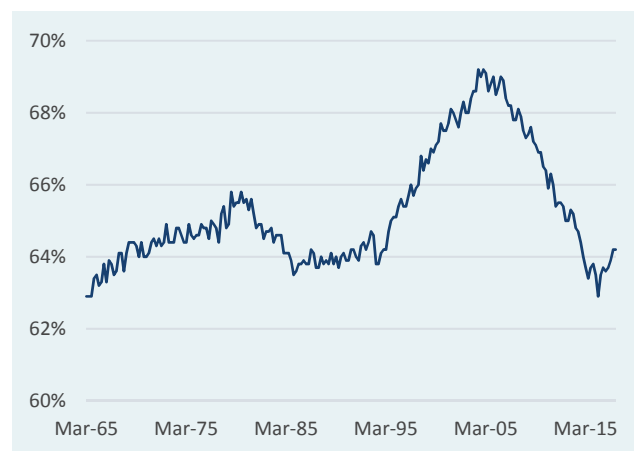
Home ownership rose for the first time in 13 years

HOUSING AFFORDABILITY INDEX



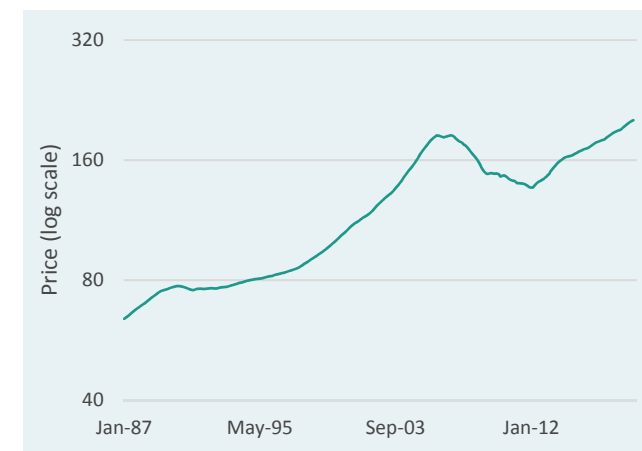
Source: Bloomberg, as of 3/31/18

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% <i>3/31/18</i>	2.8% <i>5/31/18</i>	4.0% <i>6/30/18</i>
Eurozone	2.5% <i>3/31/18</i>	2.0% <i>6/30/18</i>	8.6% <i>3/31/18</i>
Japan	1.1% <i>3/31/18</i>	0.7% <i>5/31/18</i>	2.2% <i>5/31/18</i>
BRICS Nations	5.8% <i>3/31/18</i>	2.5% <i>6/30/18</i>	5.6% <i>3/31/18</i>
Brazil	1.2% <i>3/31/18</i>	4.4% <i>6/30/18</i>	12.8% <i>6/30/18</i>
Russia	1.3% <i>3/31/18</i>	2.3% <i>6/30/18</i>	4.7% <i>5/31/18</i>
India	7.7% <i>3/31/18</i>	5.0% <i>6/30/18</i>	8.8% <i>12/31/17</i>
China	6.8% <i>3/31/18</i>	1.9% <i>6/30/18</i>	3.9% <i>3/31/18</i>

International economics

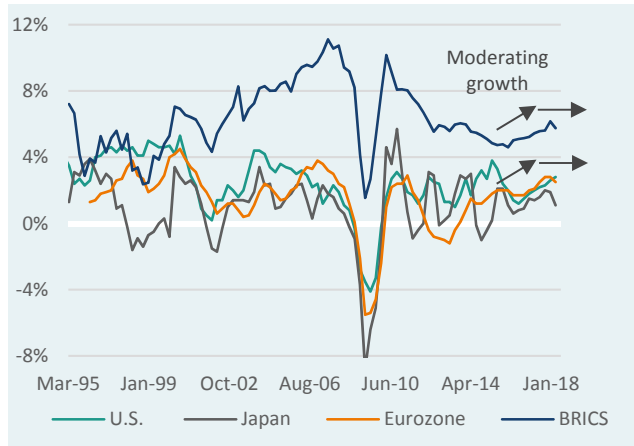
The synchronized global growth story of the past year has shifted as economies display more disparate economic performance. The change has not been too dramatic - growth continues to be positive but more moderate in places. Since 2016 we have been discussing political and economic risks which exist in 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.

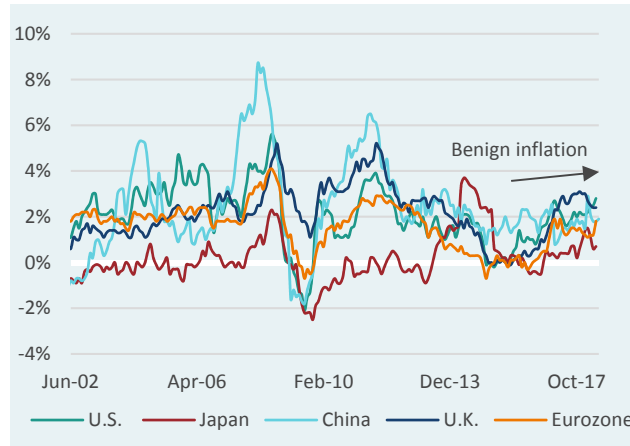
Synchronized global growth has moderated

REAL GDP GROWTH (YOY)



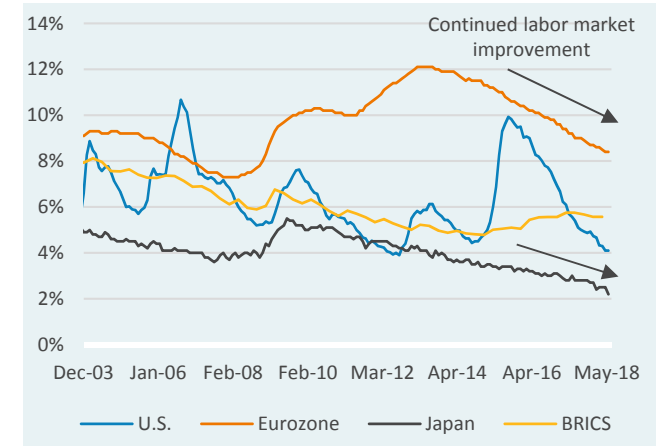
Source: Bloomberg, as of 3/31/18

INFLATION (CPI YOY)



Source: Bloomberg, as of 5/31/18

UNEMPLOYMENT RATE



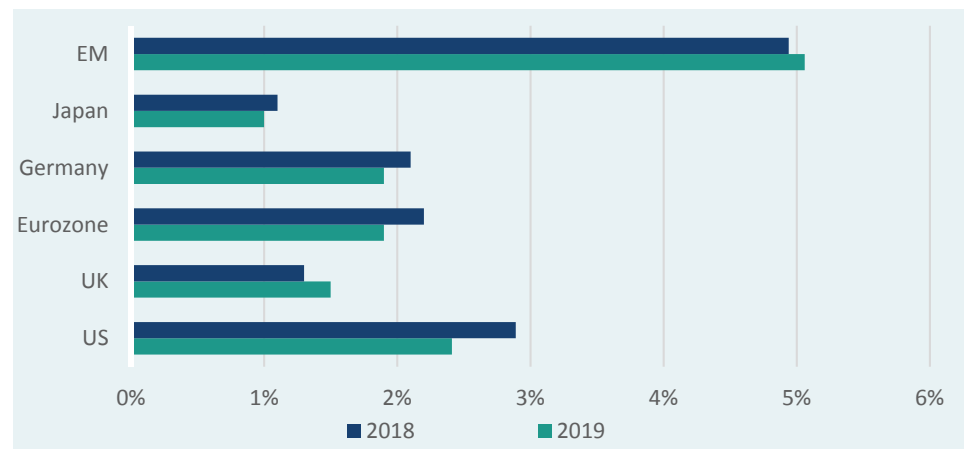
Source: Bloomberg, as of 5/31/18 or most recent release

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.

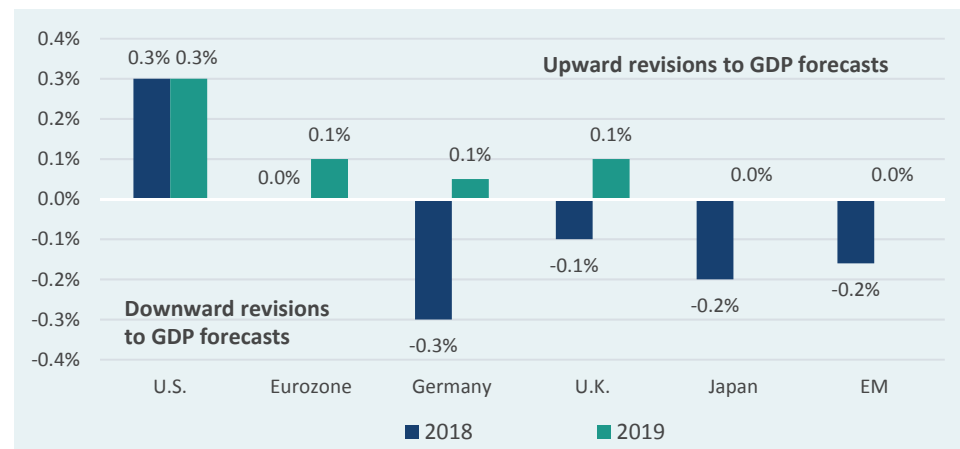
In 2019, growth is expected to moderate in every major developed country as risks develop further, such as tighter monetary conditions. Achieving the right balance of monetary tightening at this stage of the economic cycle becomes increasingly difficult, and the risk of a policy mistake is greater. However, 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

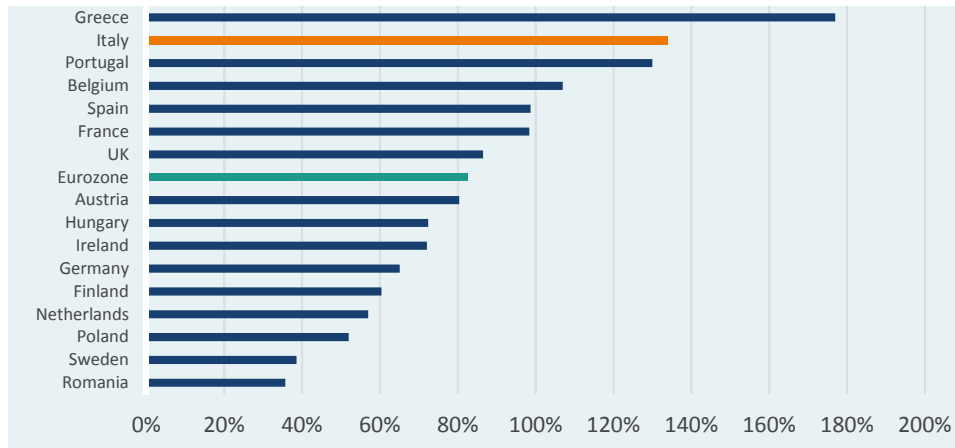
Fears were raised over Italy's possible exit from the Eurozone following a coalition of the anti-establishment Five Star Movement and League Party. Italian bond yields spiked severely during the move, but have since moderated.

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.

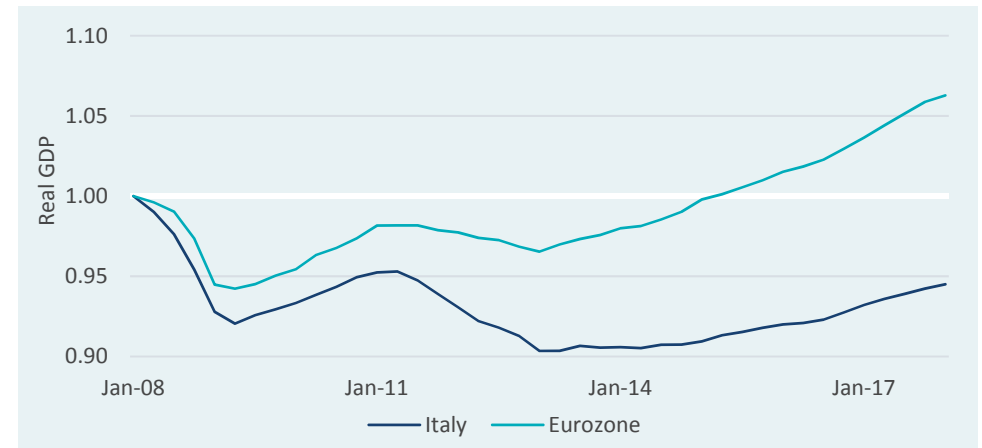
The political events in Italy tie into a broader European trend – the growing power and influence of populism. Populist movements have been fueled by severe economic disparity between some Eurozone economies as well as controversial EU policies relating open borders and immigration. This populist trend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

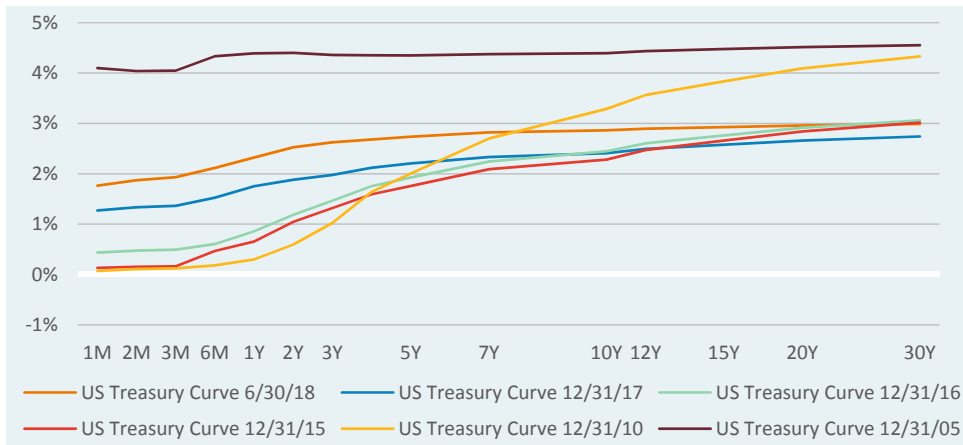
- The Fed raised interest rates in June for the second time this year to a target range of 1.8-2.0%. The balance sheet unwind continued as planned with approximately \$18 billion in Treasuries and \$12 billion in MBS coming off each month during the quarter.
- According to the Fed dot plot, officials 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%

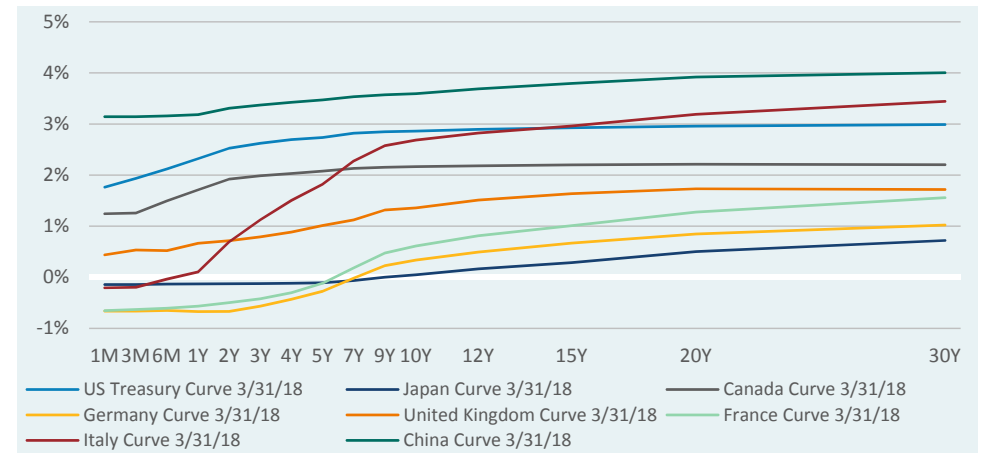
Source: Bloomberg, as of 6/30/18

Yield environment

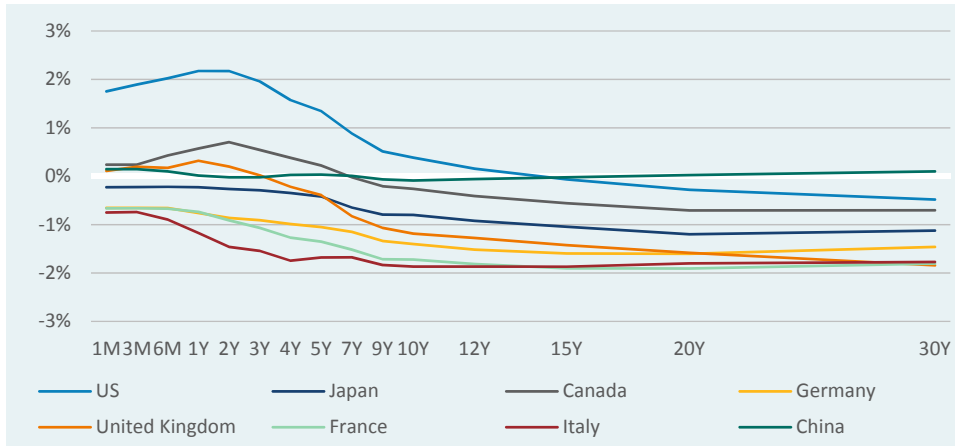
U.S. YIELD CURVE



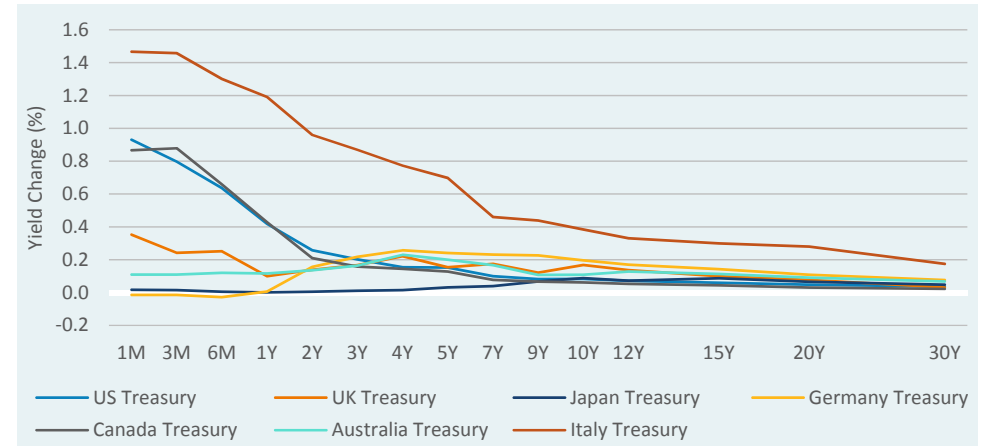
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS

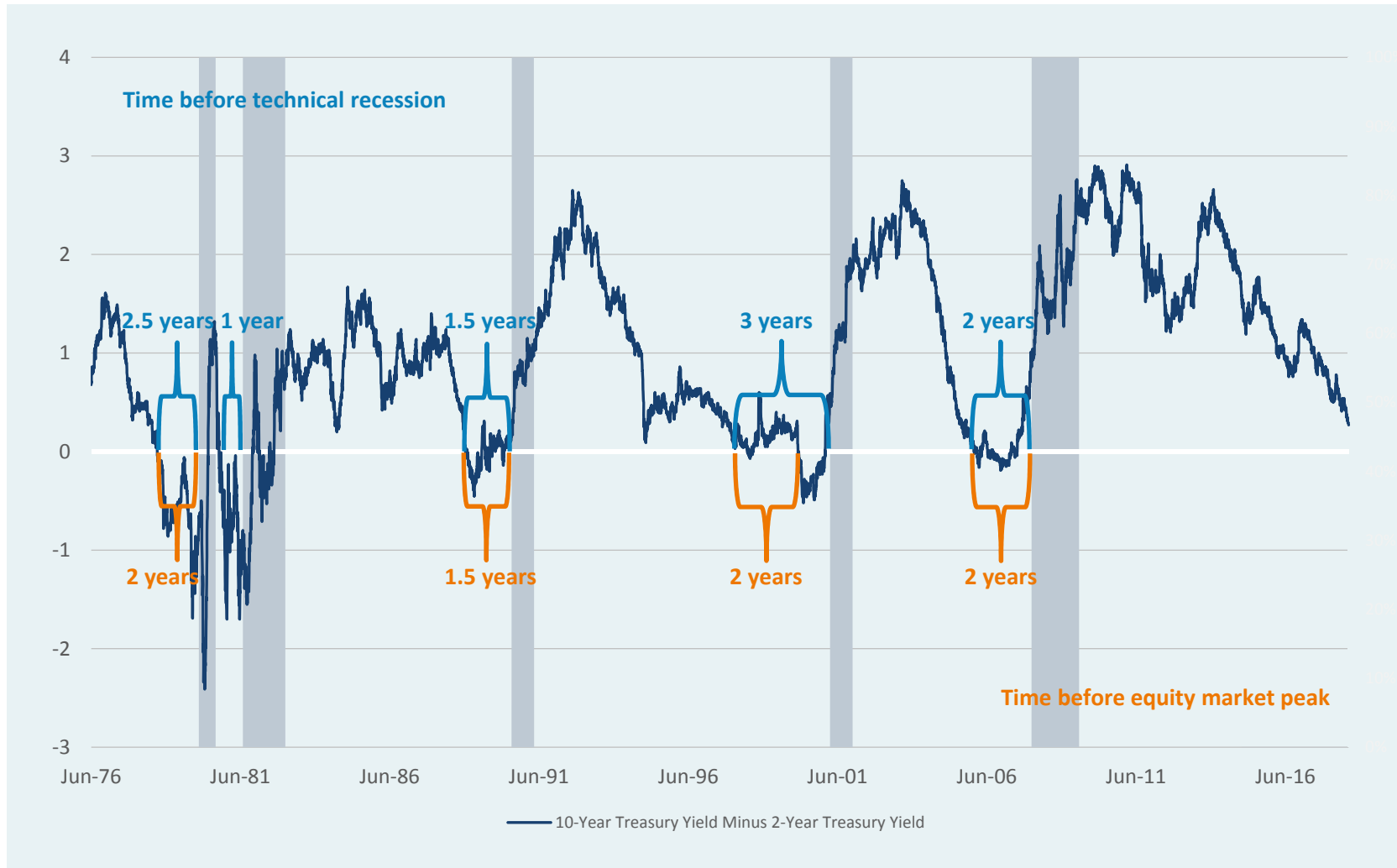


IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/18

What does an inverted curve indicate?



Yield curve inversions often occur during the late-cycle

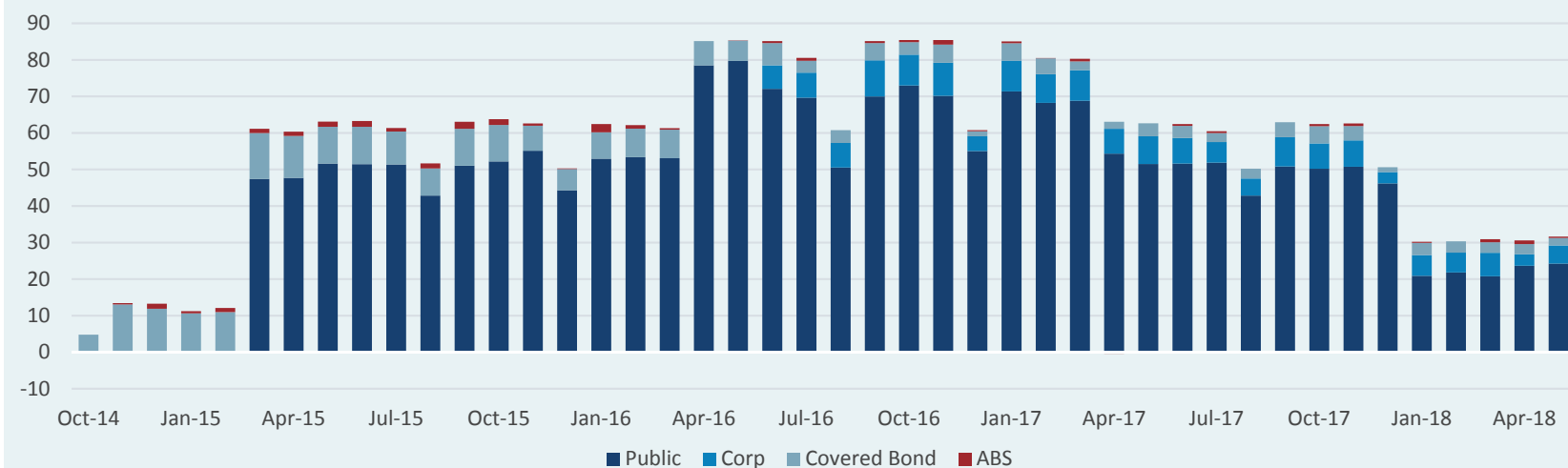
Recession and equity market peaks typically do not occur immediately after an inversion

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.

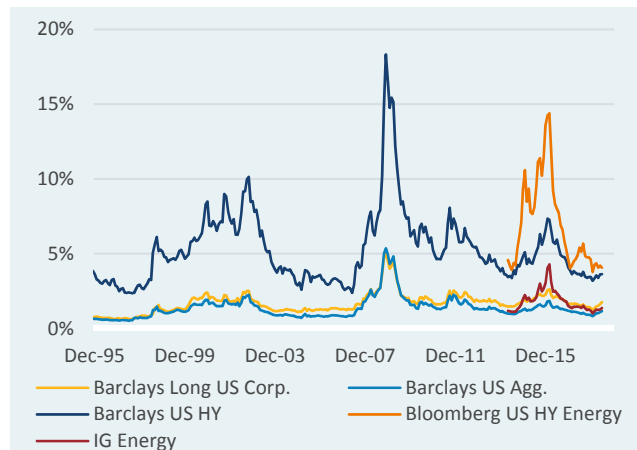
U.S. high yield option-adjusted spreads widened slightly in the second quarter to 3.6% – the asset class generated a

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.

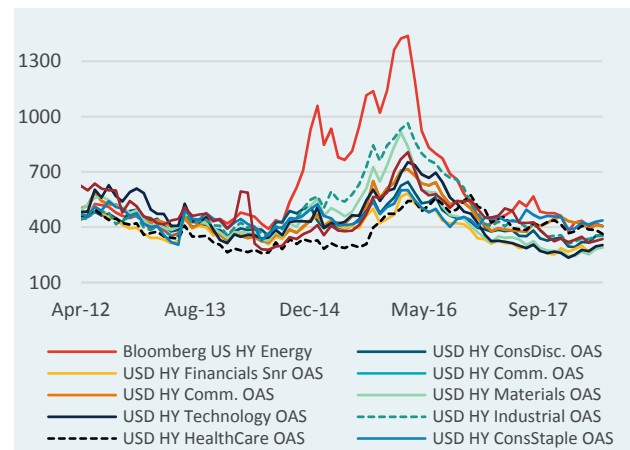
Credit spreads are tight across the capital structure

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

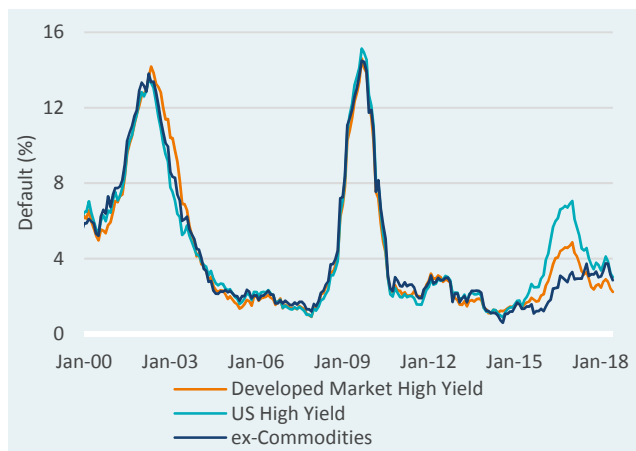
Issuance and default

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.

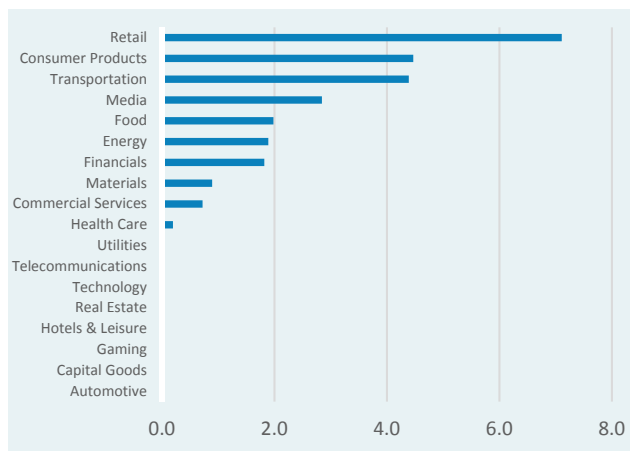
Issuance in high yield bonds totaled \$126 billion compared with \$176 billion across the first half of 2017. Similarly, issuance in leveraged loans totaled \$501 billion, compared with over \$577 billion in the first half of 2017. New issue spreads continue to compress with strong demand supported by 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.

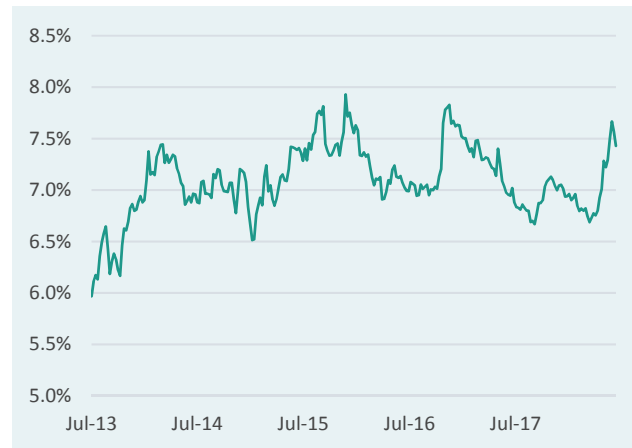
We maintain a positive outlook on emerging market debt

EMD HARD YIELDS



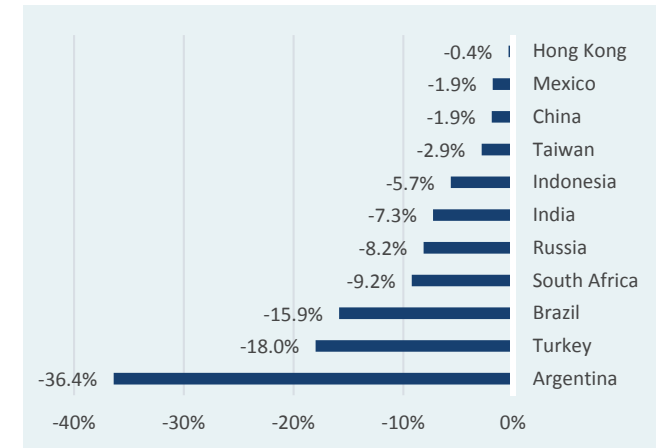
Source: Bloomberg, as of 6/30/18

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

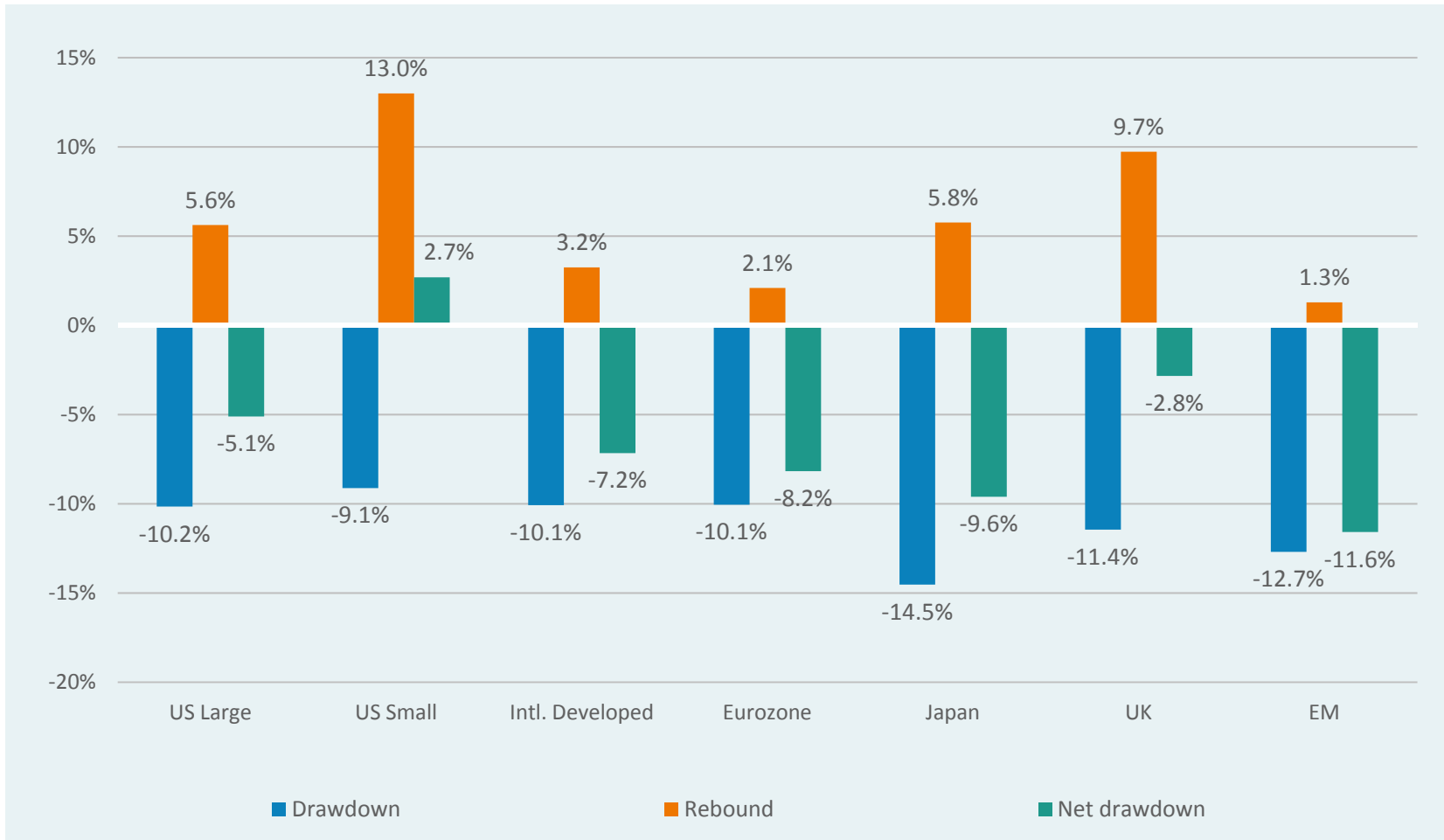
- We maintain an overweight position to equities through a positive tilt to emerging markets. We do not believe recent price swings reflect any major fundamental change to the trajectory of emerging markets. Equity bull runs in these markets have typically incurred a 10% or larger drawdown sometime during 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.

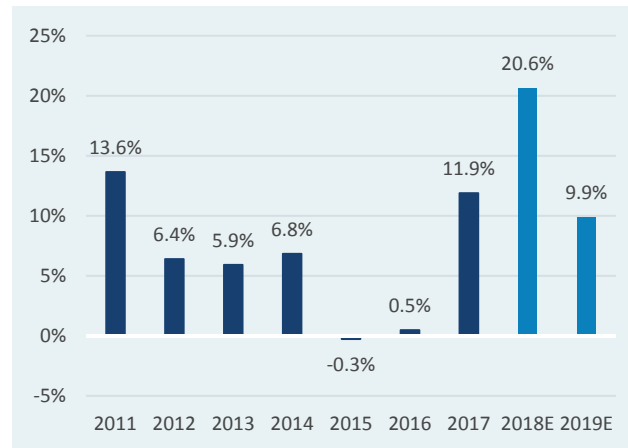
Fundamentals appear unchanged despite falling prices

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

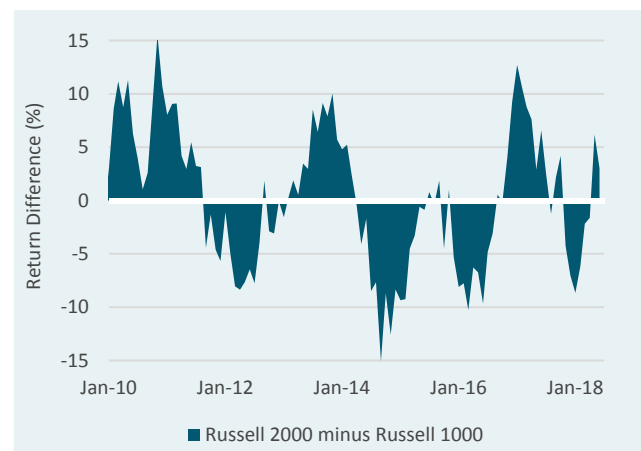
Large cap equities (Russell 1000 3.6%) underperformed small cap (Russell 2000 7.8%) during the quarter. Value stocks continued to lag growth (Russell 1000 Value 1.2% vs. Russell 1000 Growth 5.8%).

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.

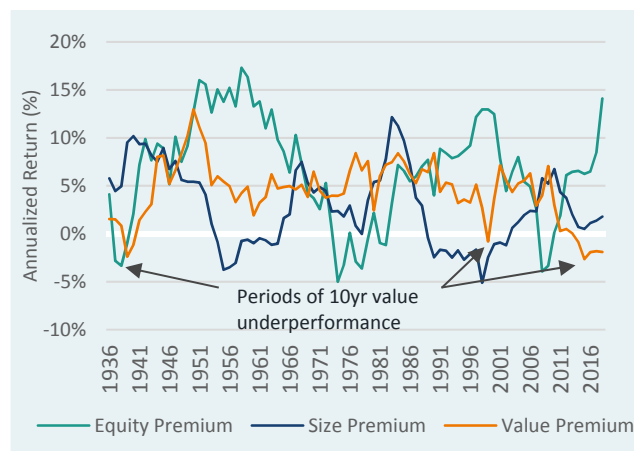
We do not yet see a catalyst for a value comeback, and it is possible that when value bounces back there will not be obvious signals beforehand. Poor recent performance is not always a solid standalone indicator of future reversal. Relative valuations are fairly in line with history, and the economic 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)



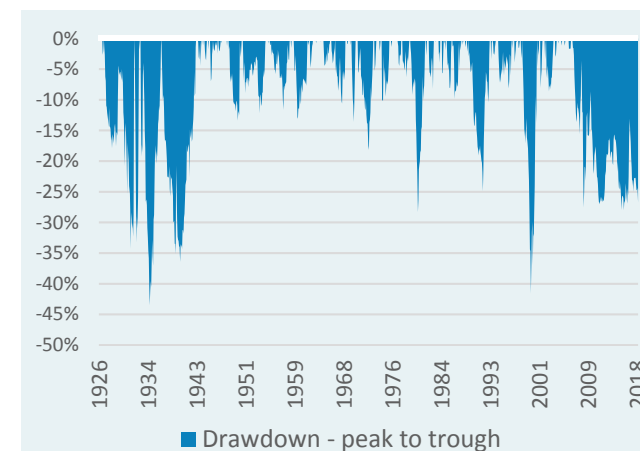
Source: FTSE, as of 6/30/18

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

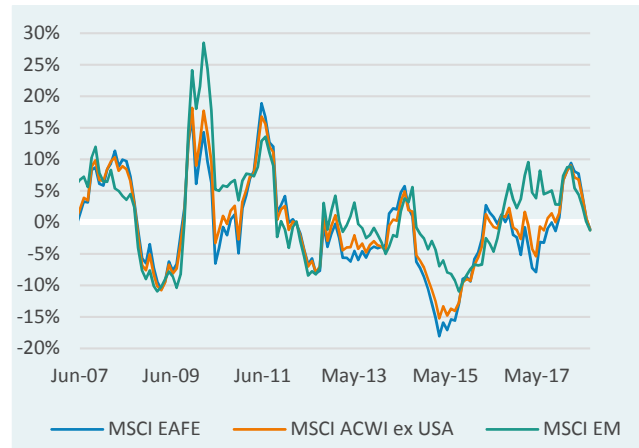
International developed equity

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.

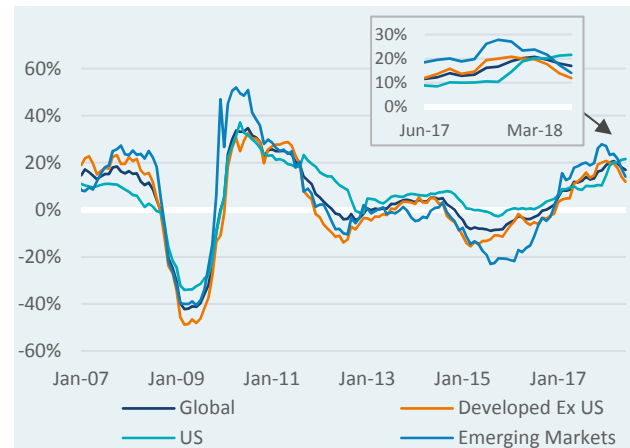
P/E multiples have moved lower as equity prices remain range bound and earnings grow at a brisk pace. Equity valuations are now closer to the longer-term average – a notable change from recent years.

EFFECT OF CURRENCY (1-YEAR ROLLING)



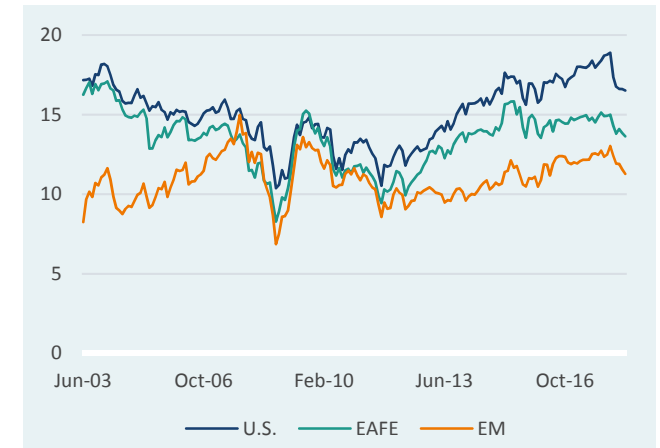
Source: MSCI, as of 6/30/18

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.

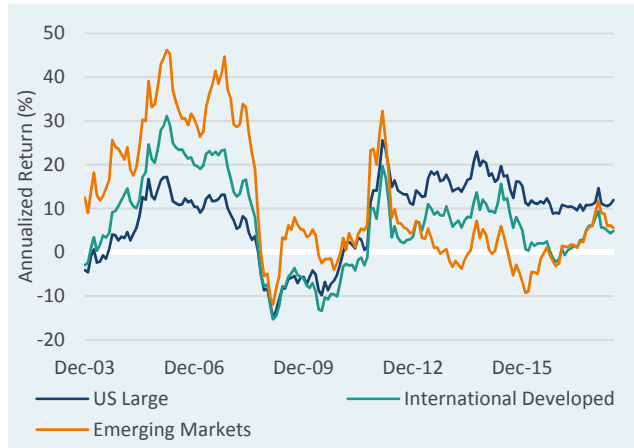
We maintain an overweight position to equities through a positive tilt to emerging markets. Equity bull runs in these markets through history typically incur at least a 10% drawdown sometime during the rally (see next page). Recent price swings were driven by valuation changes rather than by a fundamental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

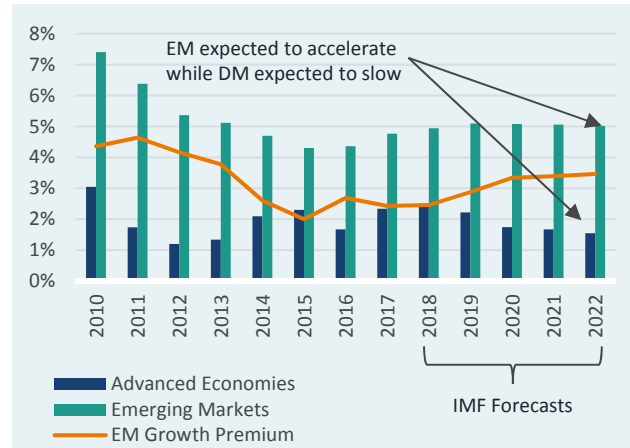
Conditions remain positive for EM equity

EQUITY PERFORMANCE (3YR ROLLING)



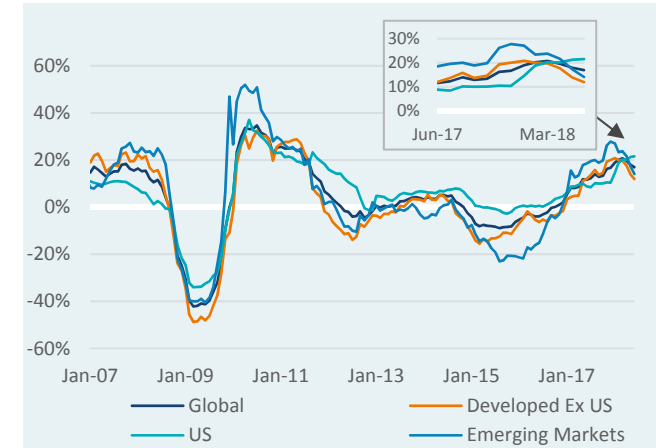
Source: Standard & Poor's, MSCI, as of 6/30/18

EM GROWTH PREMIUM



Source: IMF

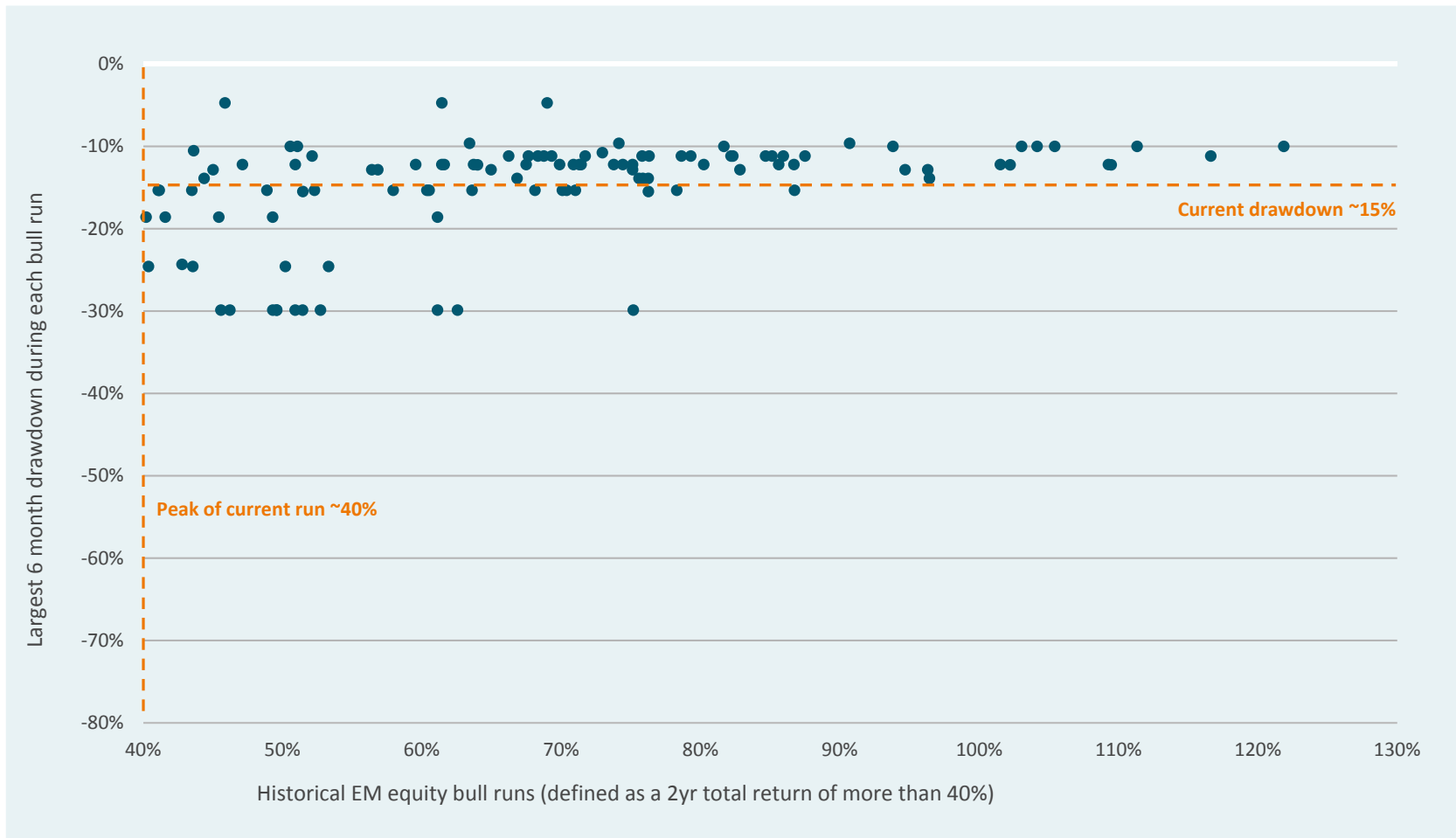
EARNINGS GROWTH (YOY)



Source: MSCI, as of 6/30/18

Emerging market volatility

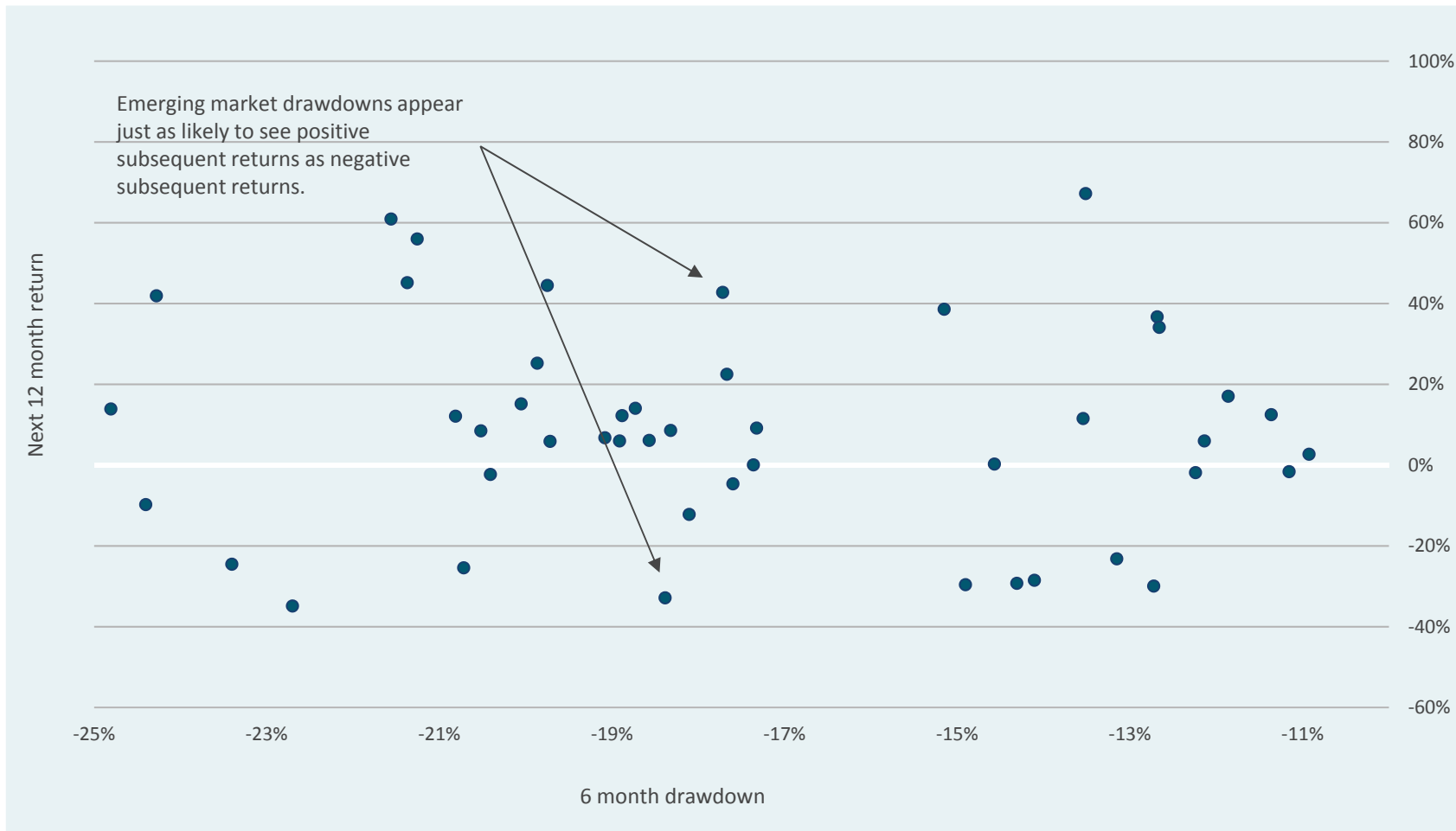
Drawdowns of 10% or more are typical during EM bull runs



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

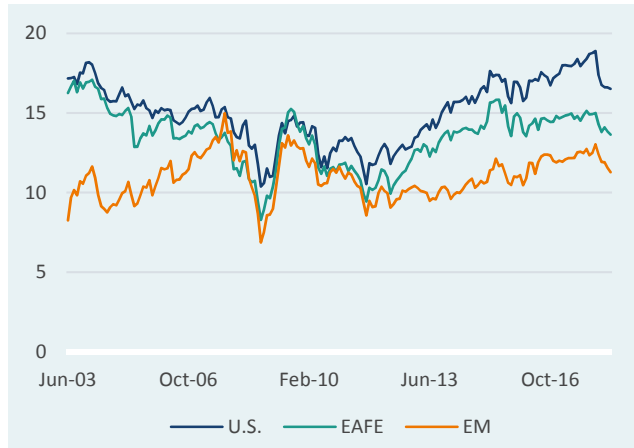
Equity valuations have moved lower year-to-date as prices fell and earnings increased at a strong pace. U.S. equity valuations have fallen the most as domestic earnings growth recently took the lead year-over-year against other markets.

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.

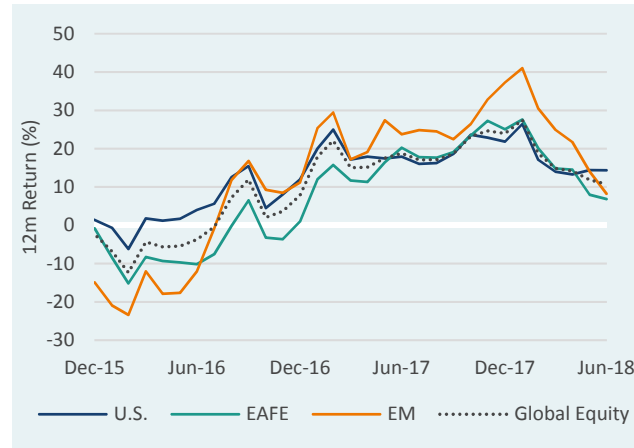
When examining equity markets through our *carry, value, trend,* and *macro* lens, *carry* has improved through lower prices (higher dividend and earnings yields), *value* has improved through lower equity multiples (range bound prices with rising earnings has pushed multiples downward), *trend* has 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



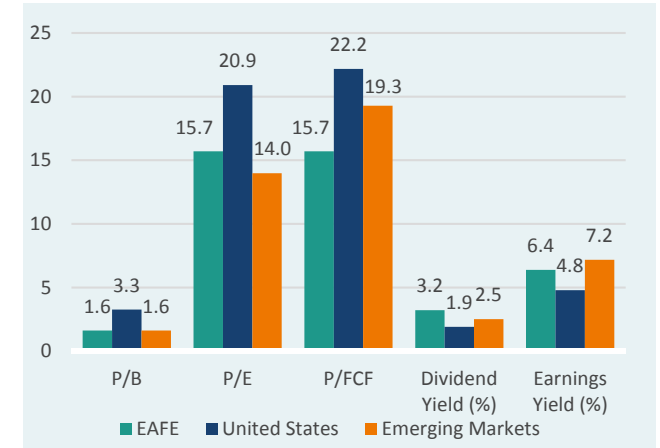
Source: MSCI, as of 6/30/18

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.

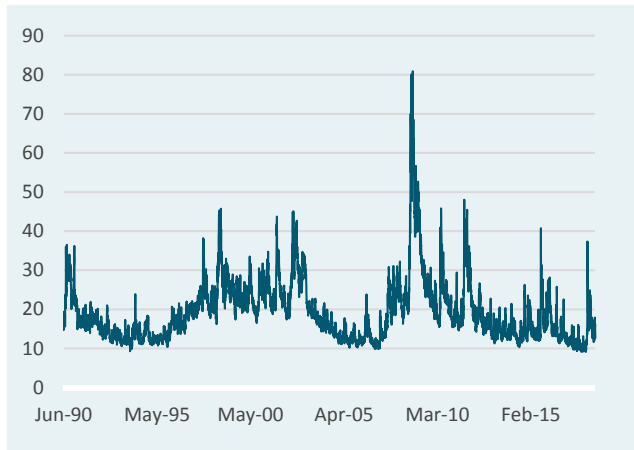
Realized volatility was below average in domestic and international equity markets in the second quarter, despite the concerns over a global trade war. Emerging markets experienced the greatest volatility, although the annualized standard deviation of daily returns in Q2 were

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.

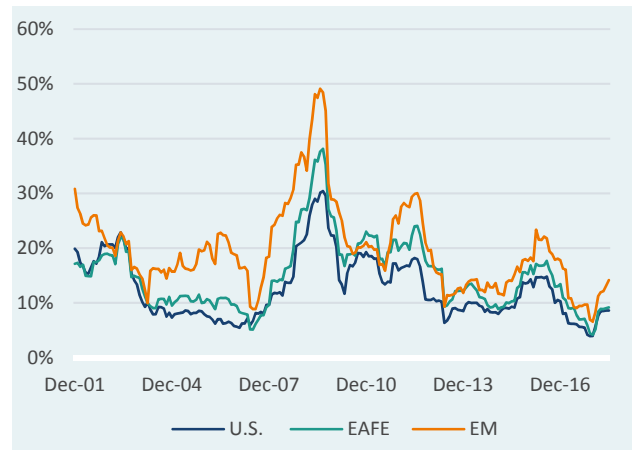
Equity volatility subsided back to below average levels

U.S. IMPLIED VOLATILITY (VIX)



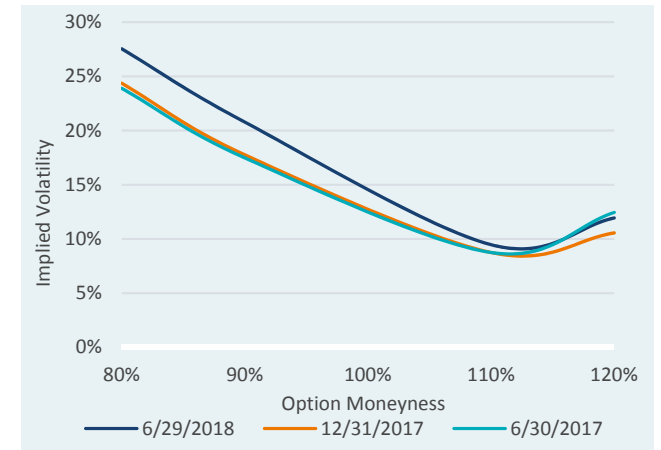
Source: CBOE, as of 6/30/18

REALIZED 1-YEAR ROLLING VOLATILITY



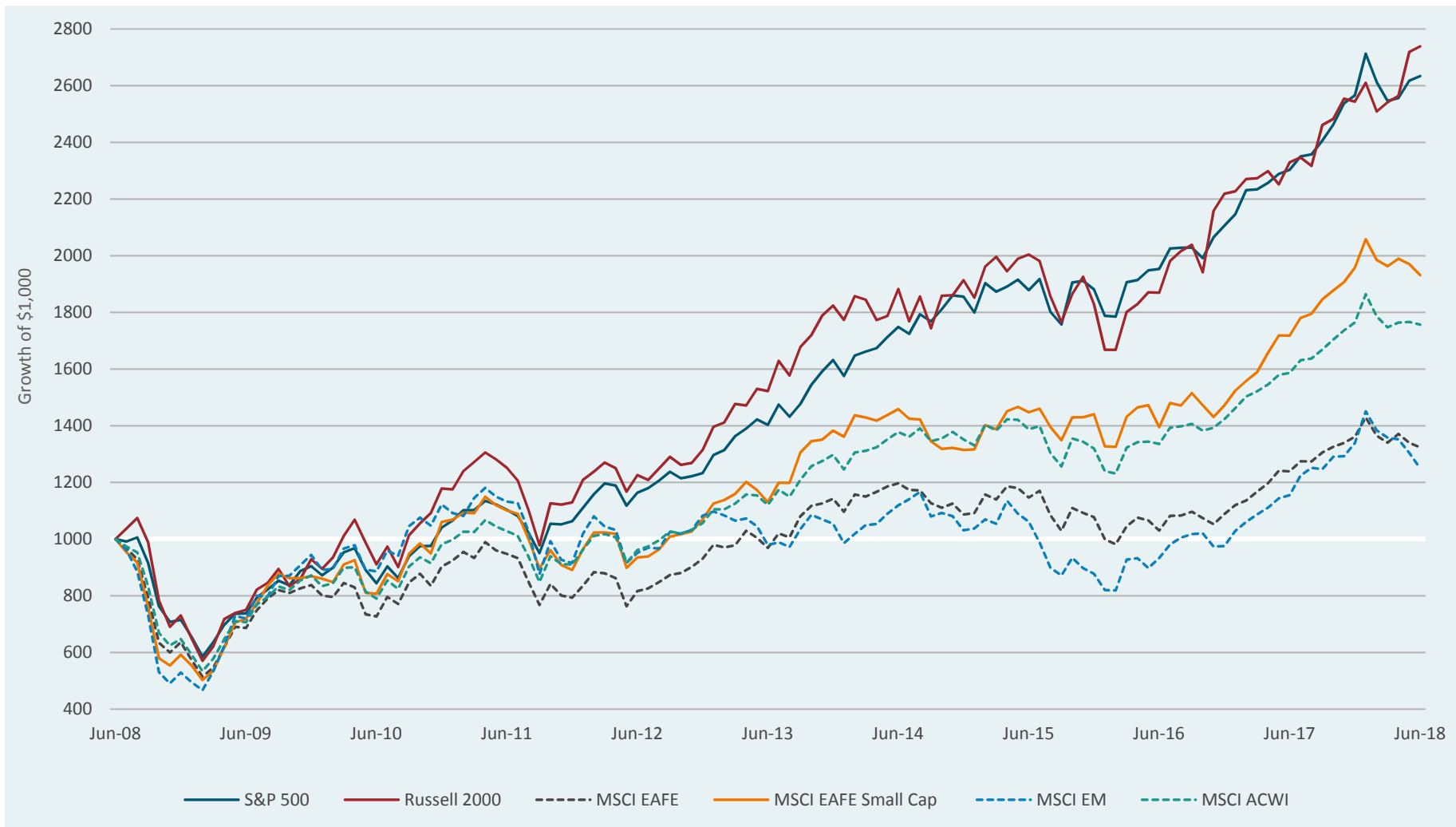
Source: Bloomberg, as of 6/30/18

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



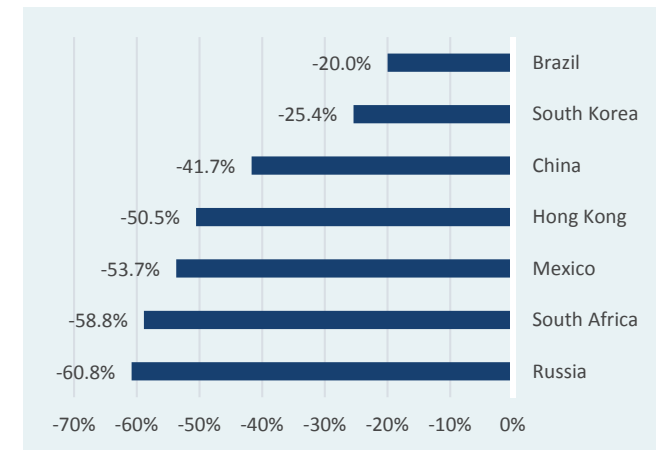
Source: Federal Reserve, as of 6/30/18

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

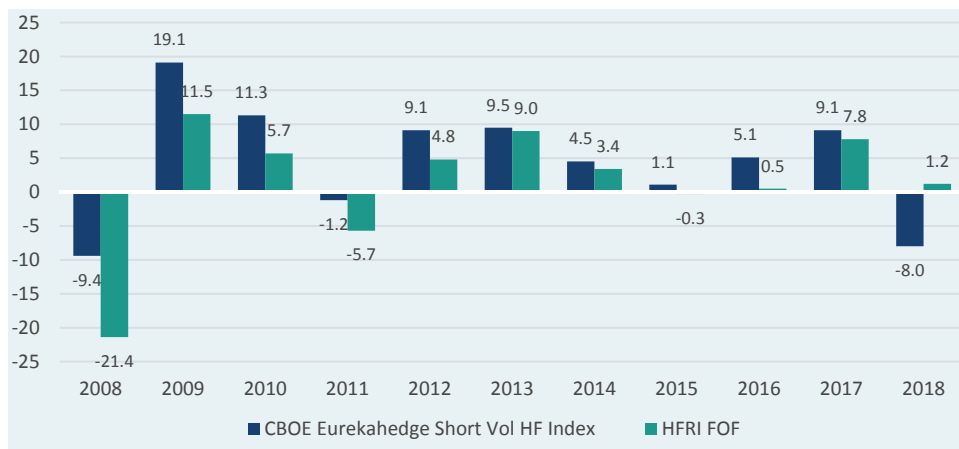
Alternative beta strategies have posted losses in Q2 and year-to-date. Equity value exposures accounted for the largest component of strategy losses in Q2 and year-to-date. Short volatility, a strong performing strategy over the past 10 years, also suffered a severe drawdown in Q1 and affected returns.

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.

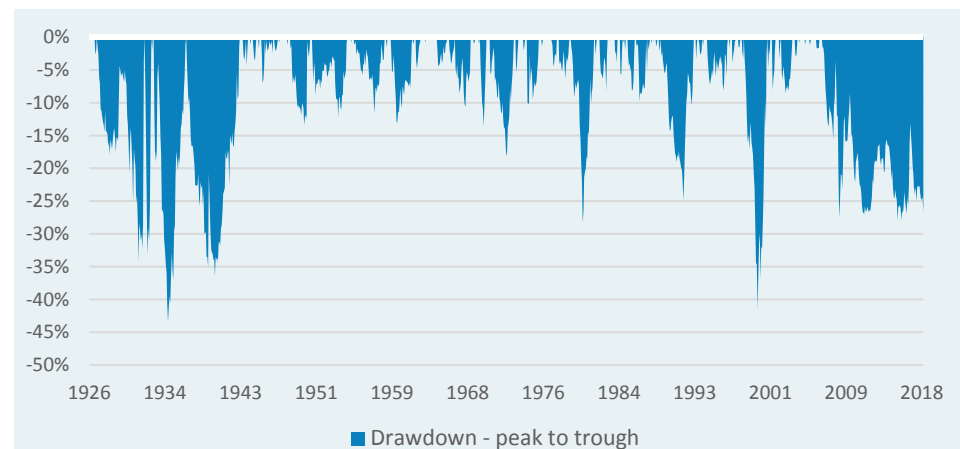
Attribution analyses on the Alt Beta strategies we follow confirm that recent performance is in line with 8-12% target volatility levels of each strategy. We are closely monitoring these funds through an environment of heightened volatility and are continuing discussions with managers. These losses are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

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD	5-Year	10-Year
Small Cap Growth	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	9.7	16.4	11.8
Small Cap Equity	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	7.7	13.6	11.2
Large Cap Growth	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	7.3	13.4	10.6
Small Cap Value	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	5.4	12.5	10.2
Large Cap Equity	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	2.9	11.2	9.9
Real Estate	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	1.7	10.3	8.5
Hedge Funds of Funds	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	1.2	10.0	6.1
Cash	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	0.8	6.4	4.8
Commodities	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	0.0	6.3	3.7
60/40 Global Portfolio	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-0.8	5.0	2.8
US Bonds	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	5.1	-1.6	3.6	2.3
Large Cap Value	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-1.7	2.3	1.5
International Equity	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-2.7	0.4	0.4
Emerging Markets Equity	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-6.7	-6.4	-9.0

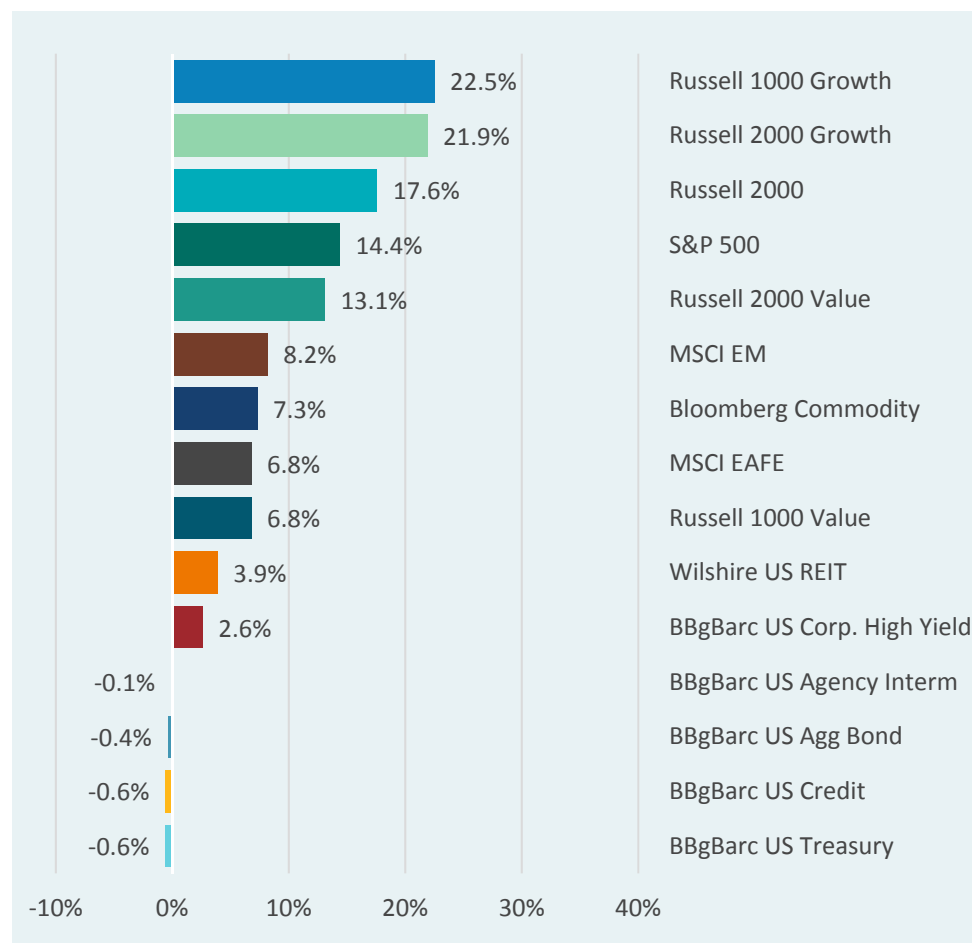
↑ BEST
↓ WORST

 Large Cap Equity	 Small Cap Growth	 Commodities
 Large Cap Value	 International Equity	 Real Estate
 Large Cap Growth	 Emerging Markets Equity	 Hedge Funds of Funds
 Small Cap Equity	 US Bonds	 60% MSCI ACWI/40% BBgBarc Global Bond
 Small Cap Value	 Cash	

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.

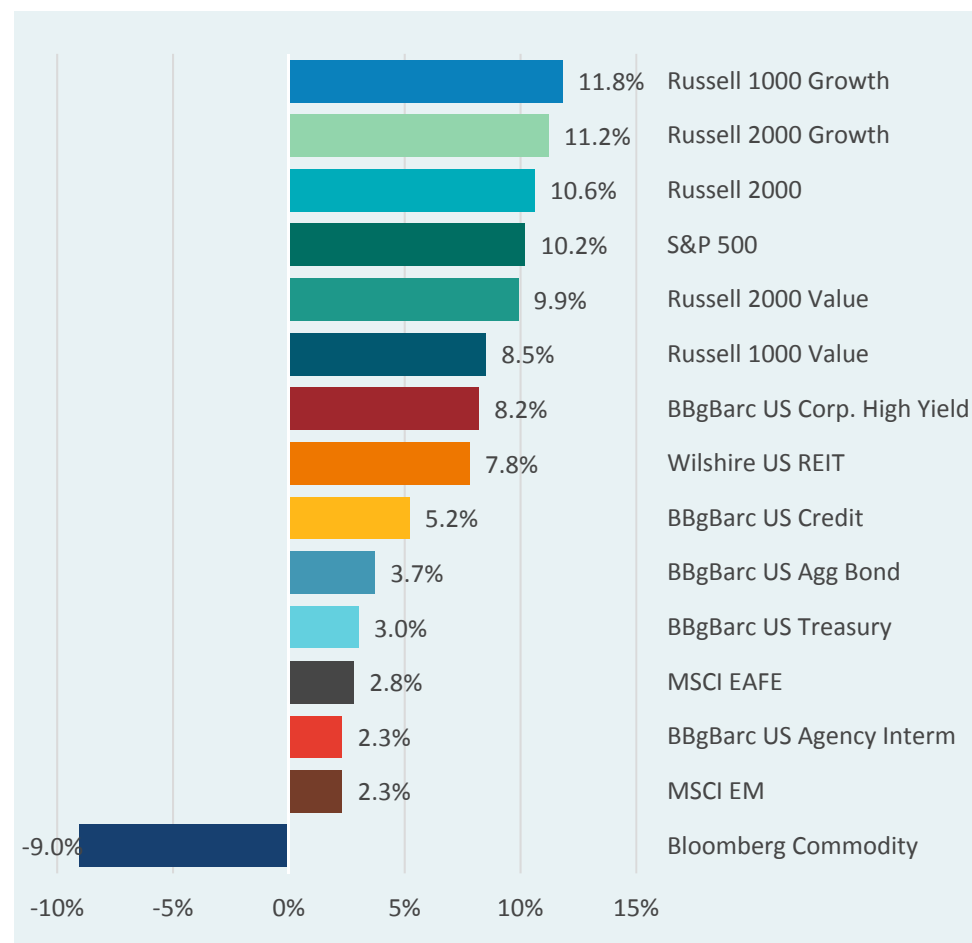
Major asset class returns

ONE YEAR ENDING JUNE



Source: Morningstar, as of 6/30/18

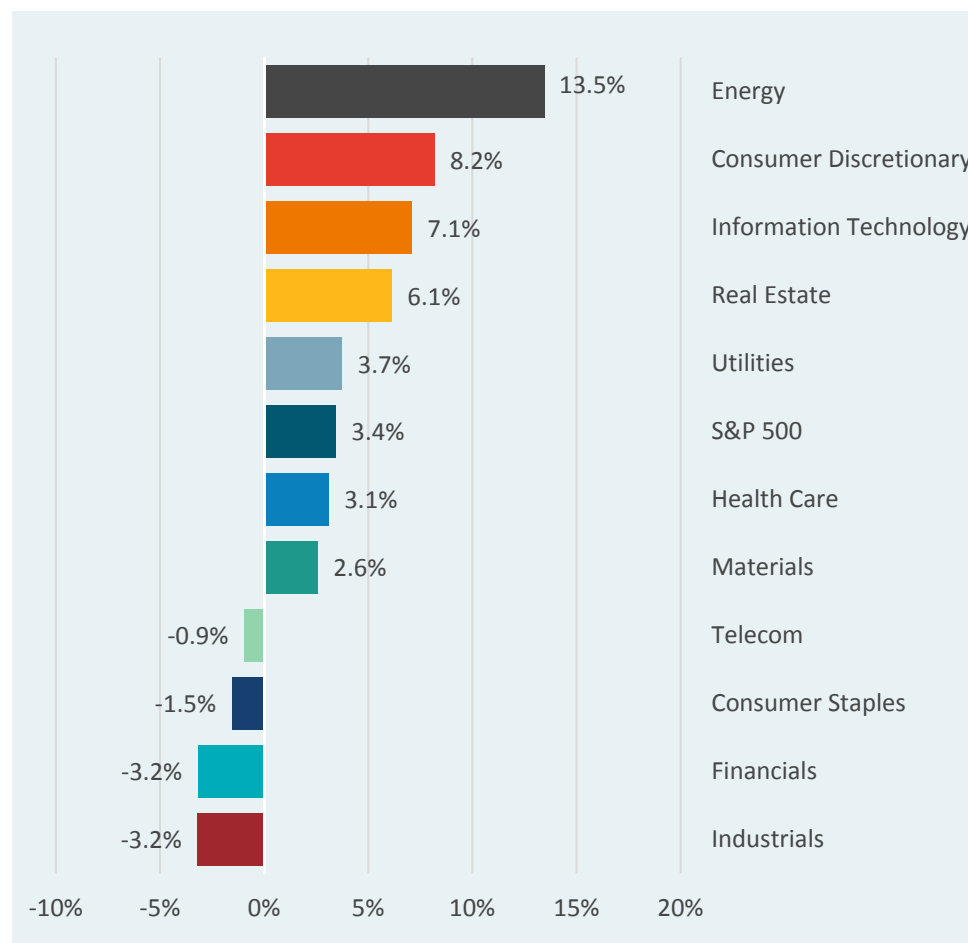
TEN YEARS ENDING JUNE



Source: Morningstar, as of 6/30/18

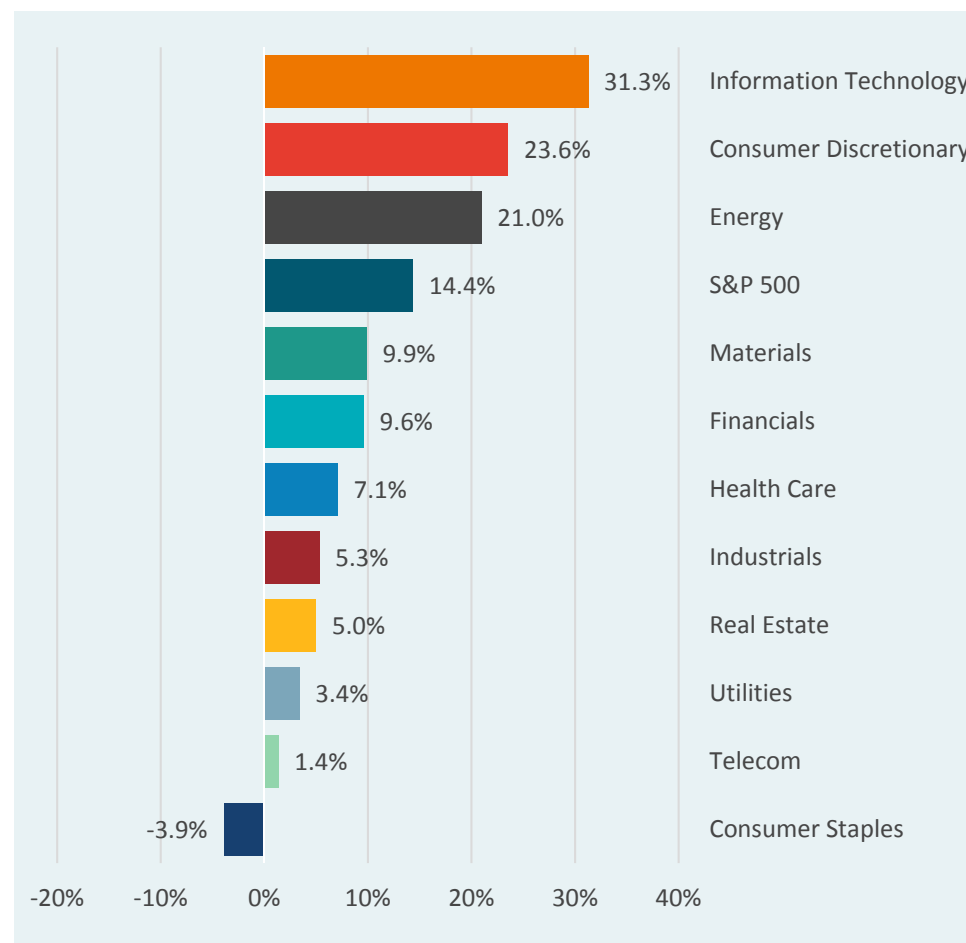
S&P 500 sector returns

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.lanqerresearch.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)

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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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