



INVERSION ON THE HORIZON

A yield curve inversion occurs when the yields on shorter maturity bonds become higher than those of longer maturity bonds. Prior to the constitution of the Federal Reserve (the Fed) in 1913 an inverted yield curve was the “natural state”. The Fed was created to centralize control of the US monetary system with the goal of stabilizing the domestic economy. Stabilization efforts have been largely successful and a normalized yield curve (upwardly sloping curve, the longer the maturity, the higher the yield) has since prevailed. In the last 90 years, there were only 8 years in which the average weekly yield curve was inverted, and the most recent occurrence was nearly 40 years ago.

So why should investors care? Historically, inversions have been strong leading indicators of recessions. In theory, when a yield curve inverts it represents a lack of investor confidence in the near-term economy and those same investors demand a higher yield to compensate for additional perceived risk. A recent Fed study found an inverted yield curve predicted all nine US recessions since 1955. In those nine recessions, the yield curve inverted 6 to 24 months prior to the beginning of each recession. Combine this historical relationship with the fact that we are in the second longest economic expansion in modern history (111 months) and you can understand why investors may be concerned.

It's different this time. Many economists are quick to point out several inconsistencies with this historical relationship and today's economic environment. As discussed, inversions are supposed to occur when investors lack confidence in the near-term economy. Current indicators show investor confidence near all-time highs and unemployment rates near all-time lows. It's also clear that short-term rates are being driven by Fed policy, not investor demand. The Fed has raised short-term rates eight times in three years including three times in 2018 alone with yet another expected before year-end. This brings into question why the Fed is raising short-term rates and why isn't the back end of the curve rising in conjunction? In short, there is a disconnect between the Fed and the broader markets with respect to projected future economic growth and inflation. The Fed is implementing restrictive monetary policy to keep economic growth and inflation in check. They perceive the risk to be an economy growing too fast. Meanwhile, the broader markets appear to be pricing in lower growth expectations and no meaningful inflation. Hence, we have the Fed controlling the short end of the curve and broad market expectations setting rates at the long end of the curve. Who is right?

There is a “wild card” to be considered in the context of the current yield curve environment. This wild card is foreign demand for US Treasuries and the lack of any real substitute for US Treasuries in the global economy. While domestic yields appear low on a historical basis, they remain among the highest of any developed country. The broad domestic market currently yields 3.5%. This compares to 2.0% for the UK, 0.7% for Germany and 0.3% for Japan. Arguably, US Treasuries have little competition and continued strong global demand would support bond prices and suppress yields.

At present, the yield curve stands extremely flat by historical standards, but is not inverted. The Fed has made it clear that they intend to continue raising short-term rates. We are at an inflection point where if the long end of the curve does not unhook, it is not a matter of if, but when the yield curve inverts.

GLOBAL ECONOMIC LANDSCAPE

- The US economic expansion is entering its 112th month, the second longest on record. The September jobs report recorded 134,000 jobs created and hourly wages rose 2.8% year-over-year. Domestic unemployment fell to 3.7%, the lowest level since 1969.
- Despite recent trade sanctions (tariffs) the US trade deficit widened by \$3.2B in the most recent month.
- The IMF is now projecting that the global economy will grow at 3.7% in 2018. This is in line with 2017 growth rates but down from the 3.9% rate forecast earlier in the year.
- China has implemented massive fiscal stimulus in the form of reduced bank reserve requirements and cash infusions to support domestic growth rates in the wake of US trade sanctions. As a result, China's current account balance is down significantly and is expected to turn negative in 2019. This would be the first time in 24 years.
- Out with NAFTA and in with USMCA. A new trade agreement was approved between the US, Mexico and Canada (USMCA). In short, it looks to boost US auto production, reduce trade barriers for American dairy farmers, provide better access to Canada and Mexico for American financial services companies and extend intellectual property protections of American pharmaceutical companies selling prescription drugs in Canada.
- Italy continues to make headlines for all the wrong reasons. Interest rates spiked and the Euro slumped after Italy submitted a budget to the EU that reflected spending nearly 2.5% more than revenues in each of the next three years. Italy is already strained under high levels of debt.

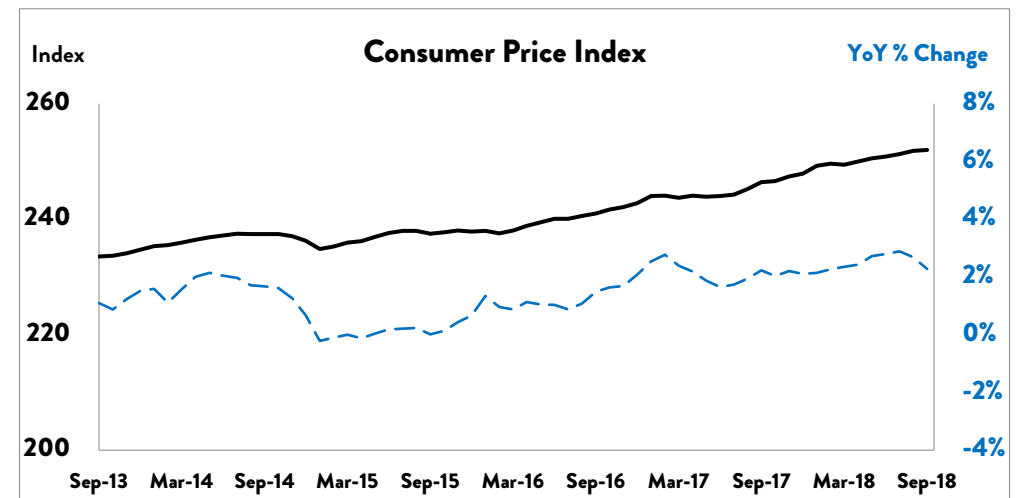
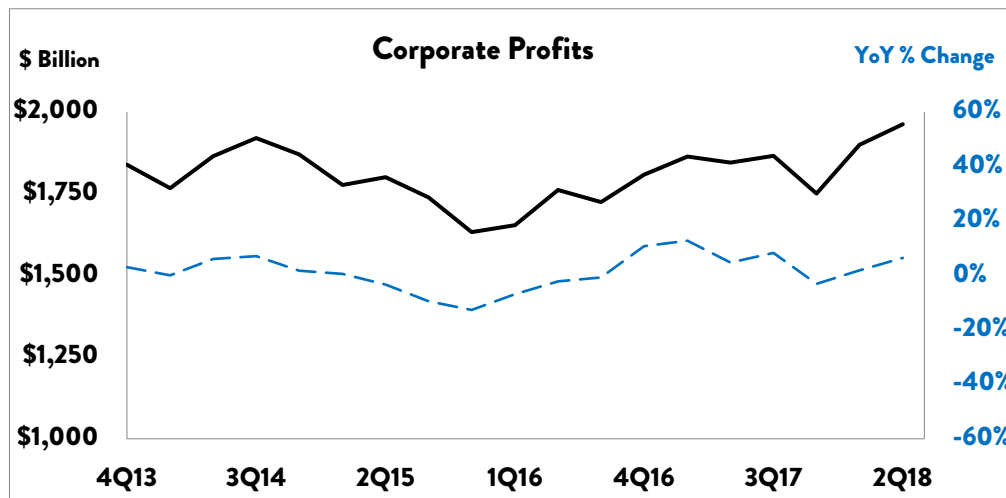
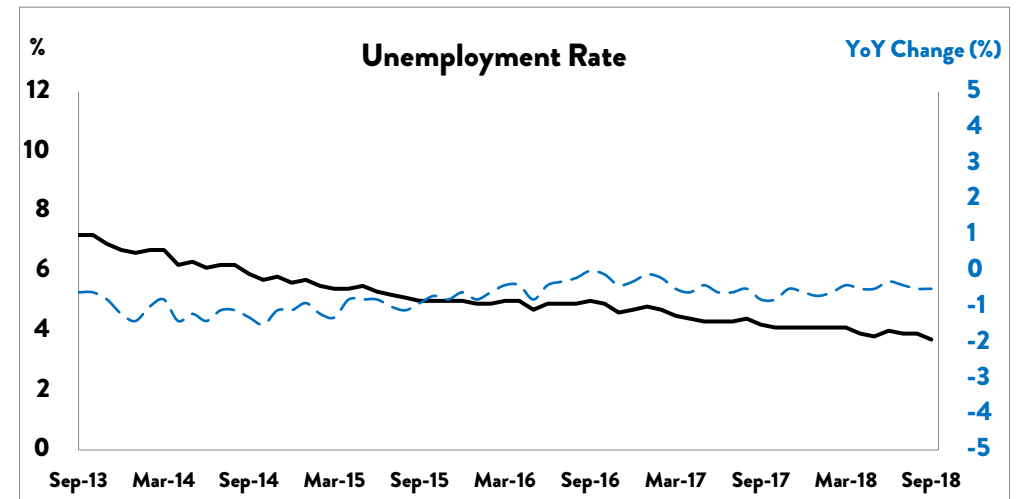
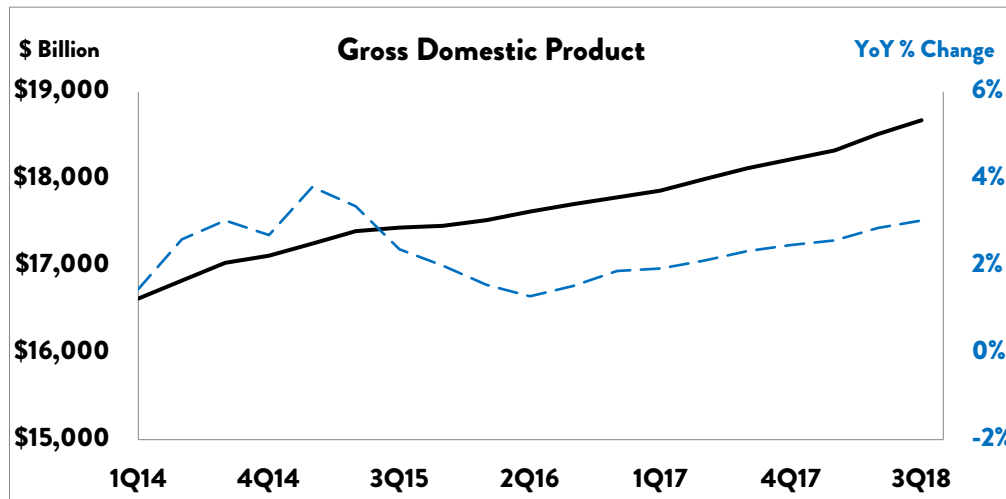
GLOBAL FINANCIAL MARKETS

- The US equity markets currently trade at 16.8x forward earnings, slightly above the 20-year average of 15.9x. Absolute earnings reached another high at the end of the most recent quarter and profit margins rose slightly to 11.5%, the highest in nearly 30 years. In contrast, international stocks trade at 12.9x forward earnings, well off their 20-year average of 14.3x. Earnings, while still strong, have fallen off their all-time highs.
- Factor performance shows that momentum stocks returned to leadership this quarter and have dominated year-to-date performance followed closely by quality stocks (low debt). The laggards include high dividend stocks and defensive stocks.
- Oil prices toppled from \$105 USD/barrel to a low of \$33 as of January 2016. Since this low, oil prices have steadily risen to north of \$73 today.
- The domestic yield curve continues to flatten as the Fed increases short-term rates and the long end of the curve remains largely unchanged. Real yields, as reflected by the 10-year Treasury, stand at 0.86% versus an average of 2.36% over the past 60 years.
- Domestic equity markets continue to outpace international markets. The US market has gained 10.6% YTD, while developed markets have declined by 2.7% and emerging markets have declined 7.4%. The combination of Fed rate hikes (stronger dollar) and escalation of US-China trade sanctions continue to put downward pressure on emerging markets.
- Headline inflation increased to 2.7% at the end of August. However, core inflation, which excludes the volatile energy sector, continues to plod along at a 2.2% clip. Both continue to run well below their 50-year average of 4.0%. Commodity spot prices for hard and soft commodities continue to run well below historical averages with agriculture (grains) near all-time lows. Crude oil is the only exception, trading at the 10-year average.

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3Q2018 Economic Data



Labor Market Statistics (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	5-Yr Avg.	Date
Jobs Added/Lost Monthly	134,000	351,000	14,000	210,800	Sep-18
Unemployment Rate	3.7%	7.2%	3.7%	5.1%	Sep-18
Median Unemployment Length (Weeks)	9.4	18.4	6.6	11.6	Sep-18
Average Hourly Earnings	\$27.24	\$27.24	\$24.09	\$25.54	Sep-18

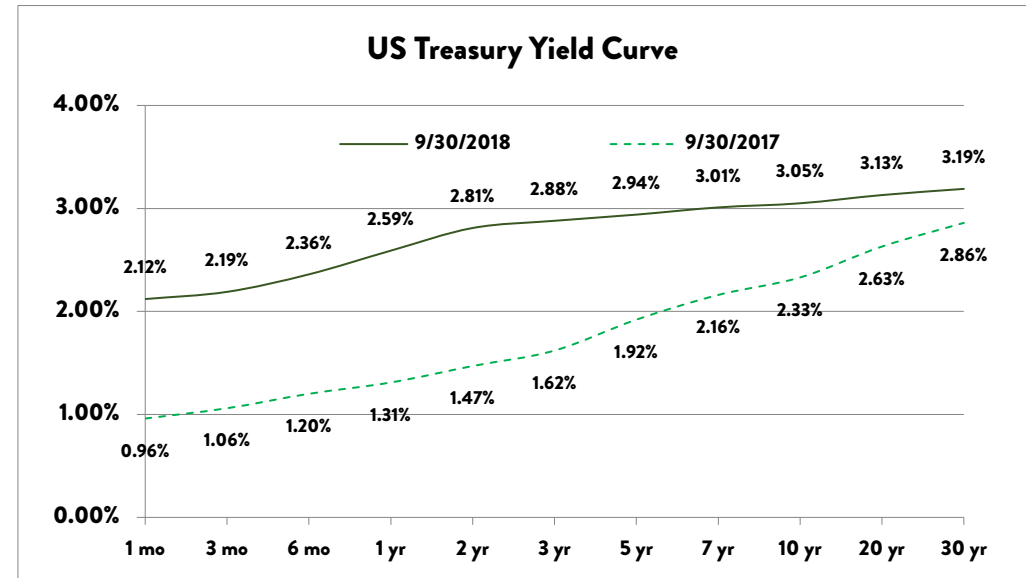
Other Prices and Indexes (Monthly)					
Category	Recent	5-Yr High	5-Yr Low	% Off Peak	Date
Gas: Price per Gallon	\$2.83	\$3.70	\$1.79	-23.4%	Sep-18
Spot Oil	\$70.23	\$105.79	\$30.32	-33.6%	Sep-18
Case-Shiller Home Price Index	211.7	211.7	163.3	29.6%*	Aug-18
Medical Care CPI	485.1	486.3	428.5	13.2%*	Sep-18

Source: Federal Reserve Bank of St. Louis and Bureau of Labor Statistics

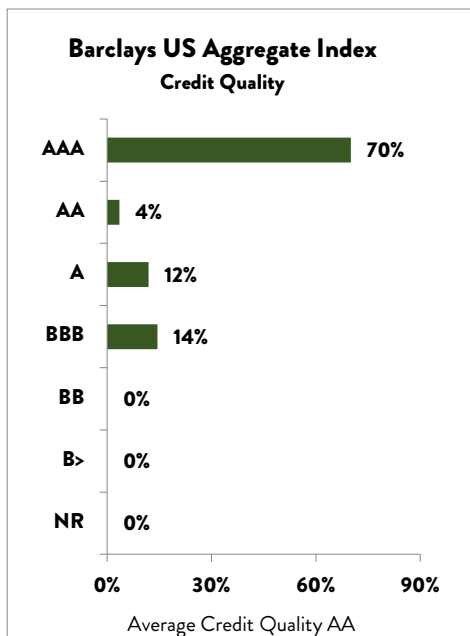
*% Off Low

3Q2018 Bond Market Data

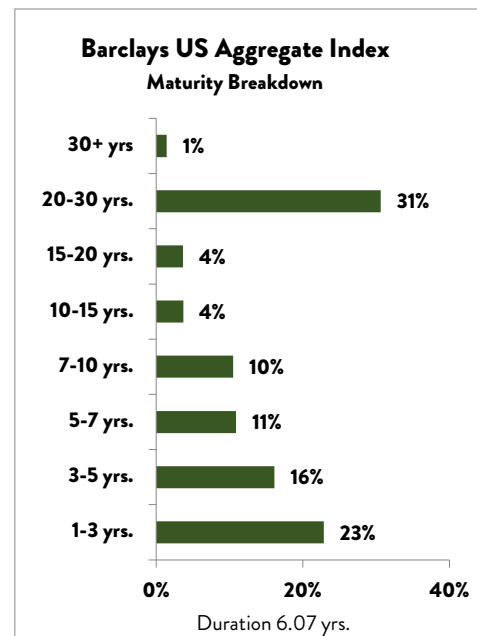
Index	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
90-Day T-Bill	0.45%	1.18%	1.39%	0.71%	0.45%	0.30%
Barclays US Aggregate	0.02%	-1.60%	-1.22%	1.31%	2.16%	3.77%
Barclays Short US Treasury	0.49%	1.27%	1.50%	0.86%	0.57%	0.47%
Barclays Int. US Treasury	-0.12%	-0.81%	-1.22%	0.17%	0.93%	2.20%
Barclays Long US Treasury	-2.88%	-5.79%	-3.56%	0.72%	4.41%	5.45%
Barclays US TIPS	-0.82%	-0.84%	0.41%	2.04%	1.37%	3.32%
Barclays US Credit	0.89%	-2.12%	-1.10%	2.98%	3.40%	5.94%
Barclays US Mortgage-Backed	-0.12%	-1.07%	-0.92%	0.98%	2.02%	3.33%
Barclays US Asset-Backed	0.49%	0.52%	0.51%	1.17%	1.51%	3.69%
Barclays US 20-Yr Municipal	-0.14%	-0.74%	1.03%	3.06%	4.84%	6.07%
Barclays US High Yield	2.40%	2.57%	3.05%	8.15%	5.54%	9.46%
Barclays Global	-0.92%	-2.37%	-1.32%	1.98%	0.75%	2.89%
Barclays International	-1.74%	-3.03%	-1.45%	2.41%	-0.33%	2.20%
Barclays Emerging Market	1.61%	-2.28%	-1.68%	5.46%	4.51%	7.43%



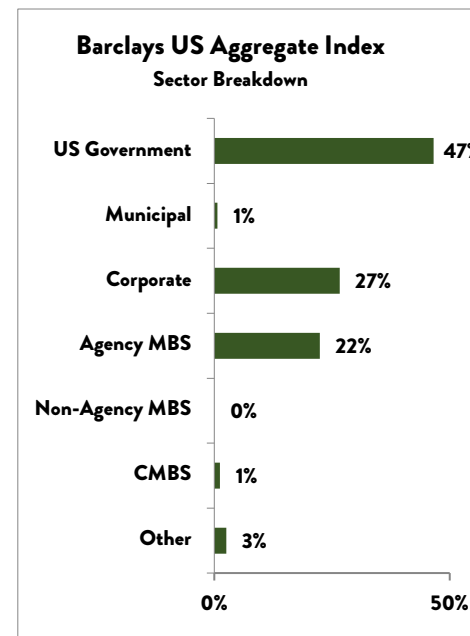
Source: Department of US Treasury



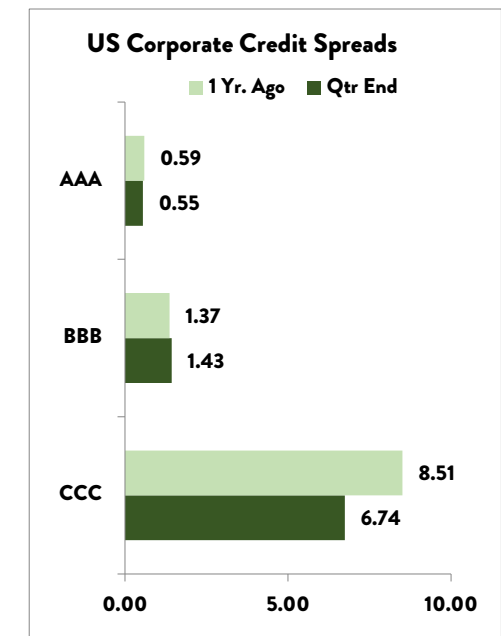
Source: Morningstar



Source: Morningstar



Source: Morningstar



Source: Federal Reserve / Bank of America

3Q2018 US Equity Market Data

Sectors Weights/Returns (ranked by quarter performance)

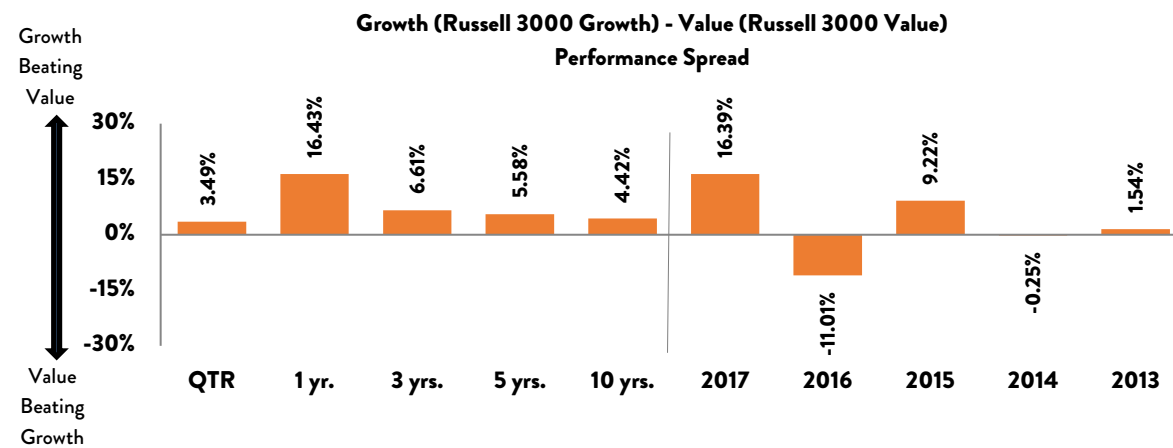
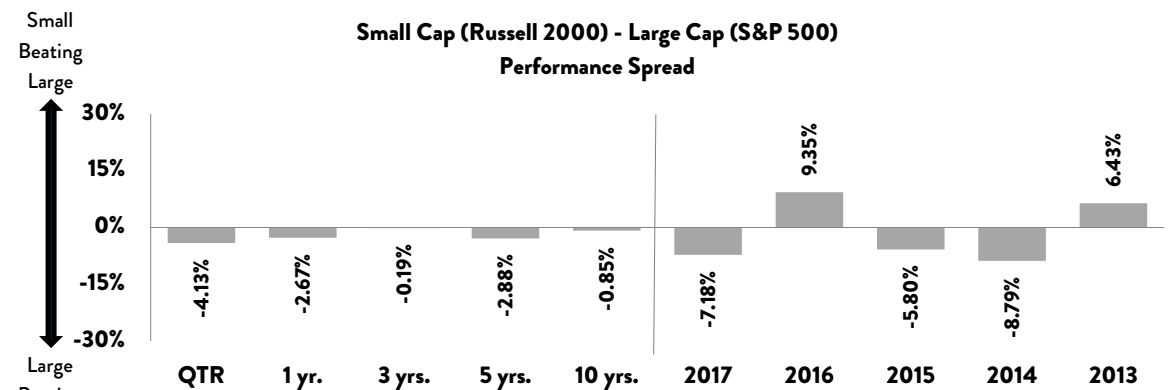
S&P 500 Index	Wgt.	Sector	QTR	YTD	1 Yr.
	15%	Health Care	14.53%	16.63%	18.35%
	10%	Industrials	10.00%	4.84%	11.18%
	10%	Communication Services	9.94%	0.75%	4.39%
	21%	Information Technology	8.80%	20.62%	31.49%
	10%	Consumer Discretionary	8.18%	20.64%	32.54%
	7%	Consumer Staples	5.70%	-3.34%	2.93%
	13%	Financials	4.36%	0.09%	8.73%
	3%	Utilities	2.39%	2.72%	2.93%
	3%	Real Estate	0.86%	1.67%	4.95%
	6%	Energy	0.61%	7.46%	13.94%
	2%	Materials	0.36%	-2.73%	4.01%

S&P Midcap 400 Index	Wgt.	Sector	QTR	YTD	1 Yr.
	2%	Communication Services	13.85%	13.60%	7.09%
	10%	Health Care	12.05%	33.02%	35.61%
	15%	Industrials	8.06%	4.54%	13.54%
	17%	Information Technology	7.80%	13.68%	21.07%
	5%	Energy	3.69%	20.99%	32.99%
	5%	Utilities	3.30%	7.59%	10.33%
	7%	Materials	0.37%	-1.08%	4.97%
	3%	Consumer Staples	0.04%	0.94%	6.33%
	9%	Real Estate	-0.16%	5.12%	7.54%
	16%	Financials	-0.30%	-0.21%	6.03%
	12%	Consumer Discretionary	-0.62%	0.28%	10.31%

S&P Smallcap 600 Index	Wgt.	Sector	QTR	YTD	1 Yr.
	2%	Communication Services	14.60%	27.82%	26.39%
	12%	Health Care	9.53%	42.90%	51.72%
	20%	Industrials	8.65%	14.57%	21.53%
	14%	Consumer Discretionary	5.10%	14.19%	23.47%
	3%	Consumer Staples	4.57%	11.06%	16.35%
	5%	Materials	3.79%	5.72%	11.23%
	2%	Utilities	3.51%	5.54%	6.85%
	14%	Information Technology	2.72%	10.61%	7.39%
	17%	Financials	2.08%	9.21%	13.51%
	6%	Real Estate	-0.72%	0.07%	-0.18%
	4%	Energy	-4.15%	5.58%	10.13%

Index Performance Data

Index	QTR	YTD	1 yr.	Annualized		
				3 yrs.	5 yrs.	10 yrs.
S&P 500	7.71%	10.56%	17.91%	17.31%	13.95%	11.97%
Russell 1000 Value	5.70%	3.92%	9.45%	13.55%	10.72%	9.79%
Russell 1000 Growth	9.17%	17.09%	26.30%	20.55%	16.58%	14.31%
Russell Mid Cap	5.00%	7.46%	13.98%	14.52%	11.65%	12.31%
Russell Mid Cap Value	3.30%	3.13%	8.81%	13.09%	10.72%	11.29%
Russell Mid Cap Growth	7.57%	13.38%	21.10%	16.65%	13.00%	13.46%
Russell 2000	3.58%	11.51%	15.24%	17.12%	11.07%	11.11%
Russell 2000 Value	1.60%	7.14%	9.33%	16.12%	9.91%	9.52%
Russell 2000 Growth	5.52%	15.76%	21.06%	17.98%	12.14%	12.65%
Russell 3000	7.12%	10.57%	17.58%	17.07%	13.46%	12.01%
DJ US Select REIT	0.72%	2.56%	4.59%	6.88%	9.14%	7.21%



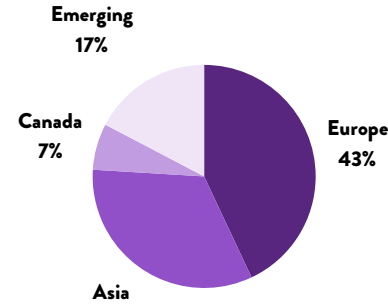
3Q2018 International Market Data

Index Performance Data (net)

Index (US\$)	QTR	YTD	1 yr.	3 yrs.	5 yrs.	10 yrs.
MSCI ACWI ex-US	0.71%	-3.09%	1.76%	9.97%	4.12%	5.18%
MSCI EAFE	1.35%	-1.43%	2.74%	9.23%	4.42%	5.38%
Europe	0.80%	-2.46%	-0.30%	7.71%	3.70%	4.85%
United Kingdom	-1.66%	-2.69%	2.87%	6.19%	2.23%	4.92%
Germany	-0.57%	-7.92%	-5.37%	9.17%	3.78%	4.86%
France	2.82%	2.70%	4.24%	12.13%	5.76%	4.79%
Pacific	2.28%	0.21%	8.22%	12.35%	5.77%	6.55%
Japan	3.68%	1.58%	10.20%	12.13%	6.76%	5.96%
Hong Kong	-0.95%	-3.46%	2.89%	12.54%	7.74%	10.43%
Australia	-0.94%	-2.20%	4.44%	12.86%	2.42%	6.64%
Canada	0.80%	-2.25%	1.92%	10.28%	2.50%	3.25%
MSCI EM	-1.09%	-7.68%	-0.81%	12.36%	3.61%	5.40%
MSCI EM Latin America	4.77%	-6.91%	-9.09%	13.67%	-2.27%	0.66%
MSCI EM Asia	-1.83%	-6.79%	1.00%	13.50%	6.75%	8.23%
MSCI EM Eur/Mid East	3.46%	-3.93%	0.16%	8.42%	-4.16%	-0.97%
MSCI ACWI Value ex-US	1.72%	-3.66%	0.42%	9.30%	2.87%	4.50%
MSCI ACWI Growth ex-US	-0.26%	-2.54%	3.08%	10.59%	5.32%	5.83%
MSCI ACWI Sm Cap ex-US	-1.51%	-4.41%	1.86%	11.24%	6.14%	8.73%

Regional Exposure

MSCI ACWI ex-USA

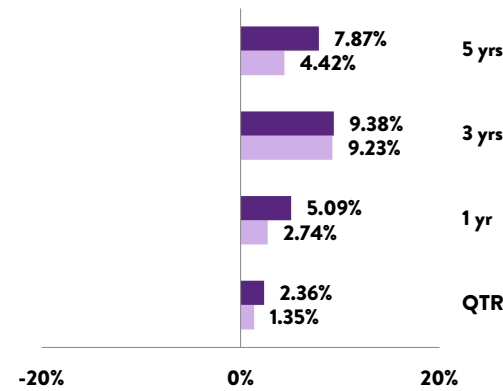


Top 10 Countries (MSCI AC World ex-USA)

Japan	17%
UK	12%
France	8%
China	8%
Canada	7%
Germany	7%
Switzerland	6%
Australia	5%
South Korea	4%
Taiwan	3%

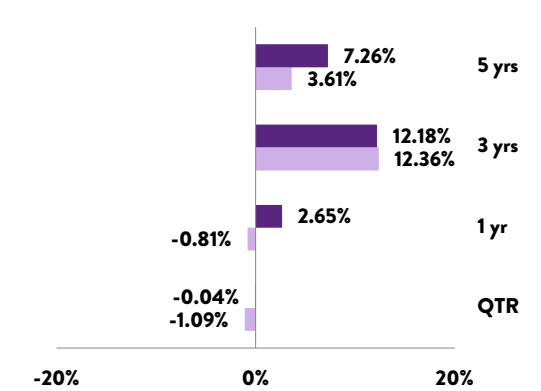
MSCI EAFE Index Return

Local (Dark Purple) vs US\$ (Light Purple)



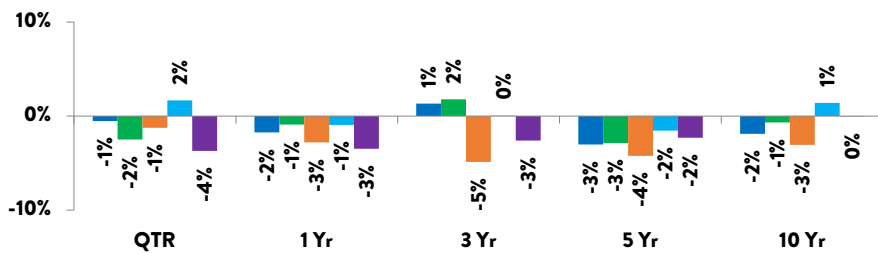
MSCI Emerging Index Return

Local (Dark Purple) vs US\$ (Light Purple)



Foreign Currency v. US\$ Returns

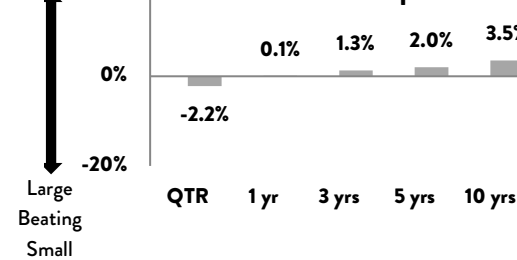
Euro (Blue), Japanese Yen (Green), Pound Sterling (Orange), Swiss Franc (Cyan), Chinese Yuan (Purple)



Exchange Rates	QTR	2Q18	1Q18	4Q17	3Q17	2Q17
Japanese Yen	113.48	110.71	106.20	112.69	112.64	112.40
Euro	0.86	0.86	0.81	0.83	0.85	0.88
British Pound	0.77	0.76	0.71	0.74	0.75	0.77
Swiss Franc	0.98	0.99	0.95	0.97	0.97	0.96
Chinese Yuan	6.87	6.62	6.27	6.51	6.65	6.78

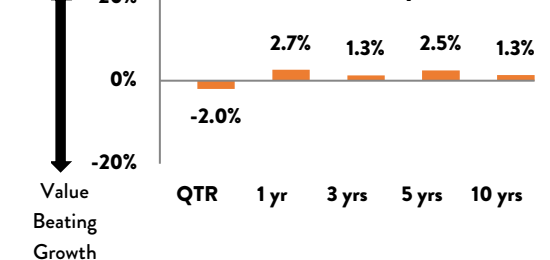
MSCI ACWI Ex US

Large v. Small Cap Performance Spread



MSCI ACWI Ex US

Value v. Growth Performance Spread



Historical Market Returns

Ranked by Performance

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD	3Q18
Emerging Markets 55.82%	Emerging Markets 25.55%	Emerging Markets 34.00%	Emerging Markets 32.14%	Emerging Markets 39.42%	US Bonds 5.24%	Emerging Markets 78.51%	Small Cap 26.85%	Core Real Estate 14.96%	Emerging Markets 18.22%	Small Cap 38.82%	Large Cap 13.68%	Core Real Estate 13.95%	Small Cap 21.30%	Emerging Markets 37.28%	Small Cap 11.51%	Large Cap 7.71%
Small Cap 47.25%	Intl 20.91%	Commod. 21.36%	Intl 26.65%	Intl 16.65%	Global Bonds 4.79%	High Yield 58.21%	Mid Cap 25.48%	TIPS 13.56%	Mid Cap 17.28%	Mid Cap 34.76%	Mid Cap 13.21%	Large Cap 1.38%	High Yield 17.12%	Intl 27.19%	Large Cap 10.56%	Mid Cap 5.00%
Intl 40.83%	Mid Cap 20.22%	Core Real Estate 20.15%	Small Cap 18.37%	Commod. 16.23%	Cash 1.39%	Intl 41.45%	Emerging Markets 18.88%	US Bonds 7.84%	Intl 16.83%	Large Cap 32.39%	Core Real Estate 11.44%	US Bonds 0.55%	Mid Cap 13.79%	Large Cap 21.83%	Mid Cap 7.46%	Small Cap 3.58%
Mid Cap 40.06%	Small Cap 18.33%	Intl 16.62%	Large Cap 15.79%	Core Real Estate 14.84%	TIPS -2.35%	Mid Cap 40.48%	Commod. 16.83%	Global Bonds 5.64%	Small Cap 16.35%	Intl 15.29%	US Bonds 5.97%	Cash 0.03%	Large Cap 11.95%	Mid Cap 18.52%	Core Real Estate 5.76%	Global Balanced 2.69%
High Yield 28.97%	Global Balanced 12.18%	Mid Cap 12.65%	Core Real Estate 15.27%	TIPS 11.64%	Core Real Estate -10.70%	Small Cap 27.17%	Core Real Estate 15.26%	High Yield 4.98%	Large Cap 16.00%	Global Balanced 14.46%	Small Cap 4.89%	TIPS -1.43%	Commod. 11.76	Global Balanced 15.87%	High Yield 2.57%	High Yield 2.40%
Large Cap 28.68%	Core Real Estate 12.00%	Large Cap 4.91%	Mid Cap 15.26%	Global Bonds 9.48%	Global Balanced -24.51%	Large Cap 26.46%	High Yield 15.12%	Large Cap 2.11%	High Yield 15.81%	Core Real Estate 12.95%	TIPS 3.64%	Global Balanced -1.45%	Emerging Markets 11.18%	Small Cap 14.65%	Global Balanced 2.49%	Core Real Estate 1.87%
Global Balanced 24.27%	High Yield 11.13%	Small Cap 4.55%	Global Balanced 14.53%	Global Balanced 9.07%	High Yield -26.16%	Global Balanced 20.49%	Large Cap 15.06%	Cash 0.06%	Global Balanced 11.06%	High Yield 7.44%	Global Balanced 3.17%	Mid Cap -2.43%	Core Real Estate 7.76%	High Yield 7.50%	Cash 1.18%	Intl 0.71%
Commod. 23.93%	Large Cap 10.88%	Global Balanced 4.16%	High Yield 11.85%	US Bonds 6.97%	Small Cap -33.79%	Commod. 18.91%	Intl 11.15%	Global Balanced -0.97%	Core Real Estate 9.76%	Cash 0.07%	High Yield 2.45%	Global Bonds -3.15%	Global Balanced 5.38%	Global Bonds 7.39%	TIPS -0.84%	Cash 0.45%
Global Bonds 12.51%	Global Bonds 9.27%	Cash 3.25%	Global Bonds 6.64%	Mid Cap 5.60%	Commod. -35.65%	TIPS 11.41%	Global Balanced 9.40%	Mid Cap -1.55%	TIPS 6.98%	US Bonds -2.02%	Global Bonds 0.59%	Small Cap -4.41%	TIPS 4.68%	Core Real Estate 6.66%	US Bonds -1.60%	US Bonds 0.02%
TIPS 8.40%	Commod. 9.15%	TIPS 2.84%	Cash 4.85%	Large Cap 5.49%	Large Cap -37.00%	Global Bonds 6.93%	US Bonds 6.54%	Small Cap -4.18%	Global Bonds 4.32%	Global Bonds -2.60%	Cash 0.04%	High Yield -4.46%	Intl 4.50%	US Bonds 3.54%	Commod. -2.03%	TIPS -0.82%
Core Real Estate 8.28%	TIPS 8.46%	High Yield 2.74%	US Bonds 4.33%	Cash 4.44%	Mid Cap -41.46%	US Bonds 5.93%	TIPS 6.31%	Commod. -13.32%	US Bonds 4.21%	Emerging Markets -2.60%	Emerging Markets -2.18%	Intl -5.66%	US Bonds 2.65%	TIPS 3.01%	Global Bonds -2.37%	Global Bonds -0.92%
US Bonds 4.10%	US Bonds 4.34%	US Bonds 2.43%	Commod. 2.07%	High Yield 1.87%	Intl -45.53%	Cash 0.16%	Global Bonds 5.54%	Intl -13.71%	Cash 0.08%	TIPS -8.61%	Intl -3.86%	Emerging Markets -14.90%	Global Bonds 2.09%	Commod. 1.70%	Intl -3.09%	Emerging Markets -1.09%
Cash 1.03%	Cash 1.44%	Global Bonds -4.49%	TIPS 0.41%	Small Cap -1.57%	Emerging Markets -53.33%	Core Real Estate -30.40%	Cash 0.15%	Emerging Markets -18.42%	Commod. -1.06%	Commod. -9.52%	Commod. -17.00%	Commod. -24.60%	Cash 0.25%	Cash 0.71%	Emerging Markets -7.68%	Commod. -2.02%

Global Balanced is composed of 60% MSCI World Stock Index, 35% Barclays Global Aggregate Bond Index, and 5% US 90-Day T-Bills.