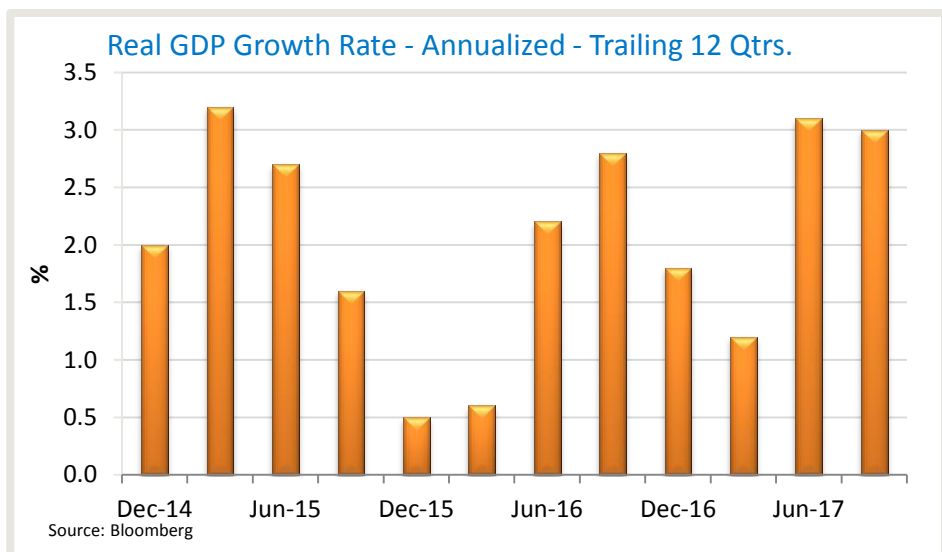


# Weekly Market Review

October 27, 2017

## Chart of the Week



## Weekly Highlights

- **Third quarter gross domestic product (GDP) grew at 3.0% annualized.** The third quarter GDP growth rate follows a second-quarter growth rate of 3.1%, marking the first time GDP has been 3.0% or higher for two consecutive quarters since 2014. Hurricane damage and soft consumer spending provided headwinds in the third quarter. A change in private inventories was a significant factor in the upside surprise, as it contributed 0.7 percentage points.
- **The European Central Bank (ECB) announced** it would begin decreasing bond purchases in January 2018. The ECB is currently purchasing 60 billion euros per month but will reduce the amount to 30 billion per month starting in January. Additionally, the purchase program, originally scheduled to end this December, will be extended to September.
- **The US House of Representatives** passed a budget resolution on Thursday. The resolution includes reconciliation rules that will allow the Senate to pass tax reform with only a simple majority. The passage of the resolution is a significant victory for Republicans, as their majority is very narrow, and clears the way for Republicans to push through an ambitious tax cut plan.

## Talking Points

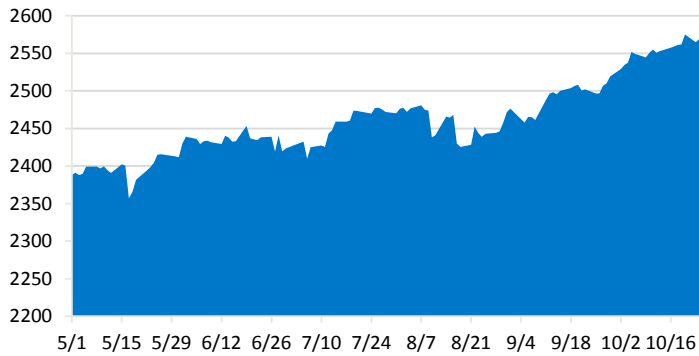
- **Equity markets were relatively flat this week.** Markets traded down through Thursday but rallied on Friday. A strong US GDP report for the third quarter, and strong earnings from Alphabet, Amazon, and Microsoft helped boost stocks on Friday.
- **Treasury yields increased slightly for the week** but ended down from their highs. The dip on Friday was amid speculation that Jerome Powell is the frontrunner to replace Janet Yellen as the next Chairman of the Federal Reserve. It is believed he will continue the current course of monetary policy.
- **Commodity prices were up slightly for the week.** Crude oil prices closed out the week with a strong gain on Friday. Grain prices were flat for the week.
- **Among economic data released this week,** the third quarter GDP grew 3.0%, following 3.1% growth in the second quarter. Housing data was also stronger than expected, with the FHFA Housing Price Index growing at 0.7% for August and new home sales of 667,000 in September. Consumer sentiment also remains strong, as the Michigan Consumer Sentiment Index for October was 100.7. This is up from a 95.1 reading in September and is at its highest level since 2004.

## Market Dashboard

	Last Price	Change	% Chg.	YTD %
<b>S&amp;P 500</b>	2,581.07	5.86	0.23%	15.3%
<b>Dow Industrials</b>	23,434.19	105.56	0.45%	18.6%
<b>Nasdaq</b>	6,701.26	72.21	1.09%	24.5%
<b>Russell 2000</b>	1,508.32	-0.93	-0.06%	11.1%
<b>Euro Stoxx Index</b>	393.43	3.30	0.85%	8.9%
<b>Shanghai Composite</b>	3,416.81	38.17	1.13%	10.1%
<b>Russell Global</b>	2,061.40	-11.17	-0.54%	17.0%

Source: Bloomberg; Index % change is based on price.

S&P 500 Index: Trailing 180 Days



	Last Price	Change	% Chg.	YTD %
<b>Russell Global EM</b>	3,480.67	-28.65	-0.82%	27.4%
<b>10-Year US Treas.</b>	2.43	5 bps	NM	NM
<b>DJ UBS Comm. Idx.</b>	85.87	0.60	0.70%	-1.9%
<b>Gold</b>	\$1,273.23	-\$6.87	-0.54%	11.0%
<b>Crude Oil</b>	\$54.02	\$2.13	4.11%	-5.4%
<b>Dollar Index</b>	94.82	1.14	1.22%	-7.2%
<b>VIX Index</b>	9.80	-0.17	-1.71%	-30.2%

One Week			YTD		
Value	Growth		Value	Growth	
L -0.51%	0.43%	1.28%	7.30%	16.37%	25.31%
-0.60%	-0.41%	-0.16%	6.70%	12.26%	19.58%
S -0.24%	-0.06%	0.11%	5.07%	11.14%	17.90%

Source: Bloomberg

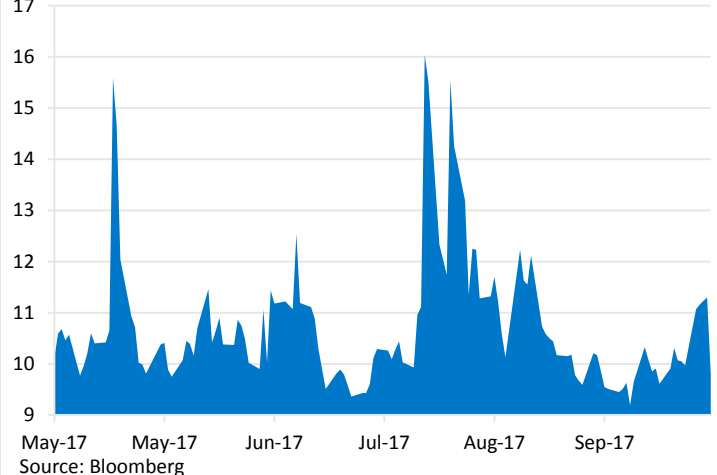
### Sector Performance:

#### S&P/Global Industry Classification Sectors (GICS)

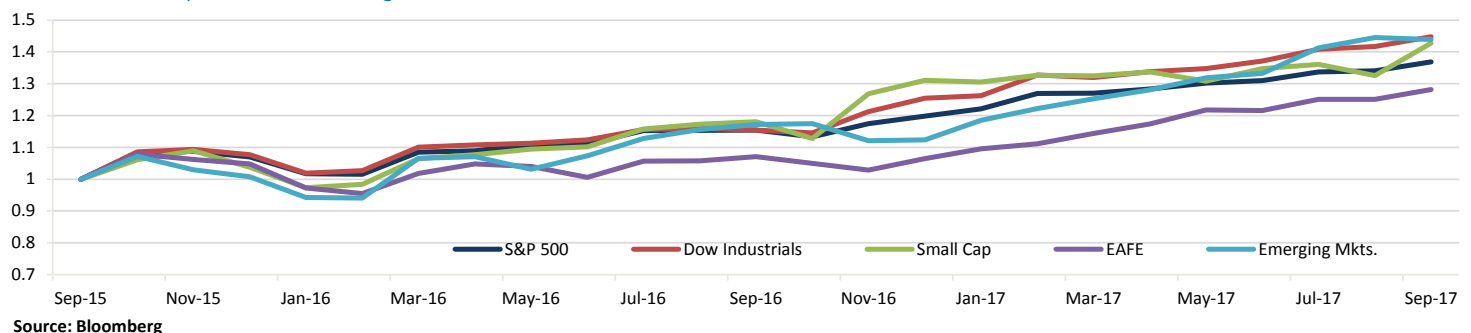
	% Wgt in S&P 500	Week % Chg.	YTD % Chg.
<b>Consumer Discretionary</b>	11.9	1.12%	13.5%
<b>Consumer Staples</b>	7.9	-1.47%	2.9%
<b>Energy</b>	5.9	-0.56%	-9.9%
<b>Financials</b>	14.8	0.56%	15.0%
<b>Health Care</b>	14.2	-2.09%	19.2%
<b>Industrials</b>	10.1	-1.24%	13.8%
<b>Information Technology</b>	24.2	2.87%	34.6%
<b>Materials</b>	3.0	0.69%	18.7%
<b>Real Estate</b>	2.9	-1.62%	4.5%
<b>Telecom Services</b>	1.9	-3.16%	-15.1%
<b>Utilities</b>	3.2	0.30%	13.1%

Source: Bloomberg

VIX Index: Trailing 180 Days



Wealth Index|Growth of \$1: Trailing 24 Months



## The Economy and Markets

### A Macro View: The 401k Deduction—A Taxing Conundrum

The subject of taxes has dominated policy news as Republicans work on an ambitious overhaul of the US tax system. Lawmakers are looking to cut taxes paid by businesses and individuals by an estimated \$1.5 trillion over the next decade. To help pay for the potential cuts, some Republicans have proposed a reduction in the amount Americans can contribute on a pre-tax basis to their 401(k) retirement plans. Currently, employees are allowed to contribute up to \$18,000 per year (\$24,000 for those over age 50) to their retirement accounts. There have been reports that proposed changes could lower this amount to \$2,400. Although President Trump tweeted that the tax plan will not include changes to the 401(k) plan, Republican leadership has indicated this change may still be on the table. Since its creation in 1978, the 401(k) plan has been an immensely popular vehicle for Americans to save for retirement, as pensions have fallen largely by the wayside. Because of this popularity, any changes are likely to be politically challenging, but if enacted, what impact could these proposed changes have on participants in these plans?

At first glance, a change in contribution limits would seem to be a disadvantage for plan participants. By limiting the deductibility of contributions, employees will likely have less incentive to contribute to workplace savings plans, potentially decreasing the amount Americans save for retirement. Given the current state of American's inadequate retirement savings, this certainly seems detrimental. However, employees will still have the option of contributing to plans on an after-tax basis. With this option, participants pay taxes on their contributions in the year in which they contribute. The earnings will grow tax-deferred, and participants can withdraw the money tax-free once they reach retirement age.

The traditional rule of thumb has been that participants expecting to pay a higher tax rate during retirement than in their working years are better off paying the taxes now and enjoying tax-free withdrawals in their retirement years. However, most Americans expect to earn less income in their retirement years, which assumes a lower tax rate then. In this scenario, a participant is better off contributing on a pre-tax basis and paying taxes (at a lower rate) on withdrawals during retirement. Given these assumptions, it would seem that drastically reducing the deductibility of contributions could be disastrous for savers.

However, this might not be the case for most Americans. Recently, John Beshears, a behavioral economist at Harvard Business School, conducted a study<sup>1</sup> in which he looked at long-term retirement outcomes for participants of both pre-tax traditional 401(k)s and after-tax Roth 401(k)s. His results concluded that using this traditional rule of thumb didn't lead to better outcomes for most participants. Rather, participants in Roth 401(k)s consistently ended up with more spending power in retirement than those with a traditional 401(k), regardless of tax rates during working years and retirement. The reason for this comes down to human behavior. Most plan participants use rules to determine their contribution amounts, and these rules are similar, regardless of contributions' deductibility. As a result, participants contribute the same amount to after-tax plans as they would to pre-tax plans, thereby nullifying the advantage of pre-tax plans. If participants don't take advantage of the tax incentive to contribute more, account balances will end up being the same amount at retirement, whether they are in pre-tax or after-tax vehicles. With account balances being equal, the after-tax account will provide greater spending power due to tax-free withdrawals.

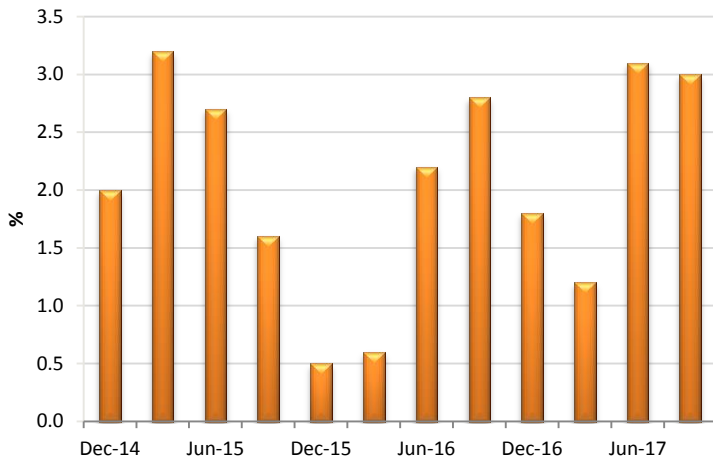
The bipartisan popularity of the traditional 401(k) plan certainly makes any proposed changes a political unknown, especially if the taxes slashed by these savings are seen to benefit disproportionately the very wealthy. Coupled with President Trump's opposition to these changes, it is difficult to predict the likelihood of any proposals ultimately becoming law. The actual impact for Americans is also difficult to assess. At first pass, basic math would indicate many Americans would be worse off in retirement. However, human behavior doesn't always follow mathematical principles, and there is at least some evidence many Americans would be better off by contributing after-tax dollars to their retirement plan.

Greg Richards, CFA, CFP®  
Senior Investment Analyst

<sup>1</sup> [Harvard Business School](#)

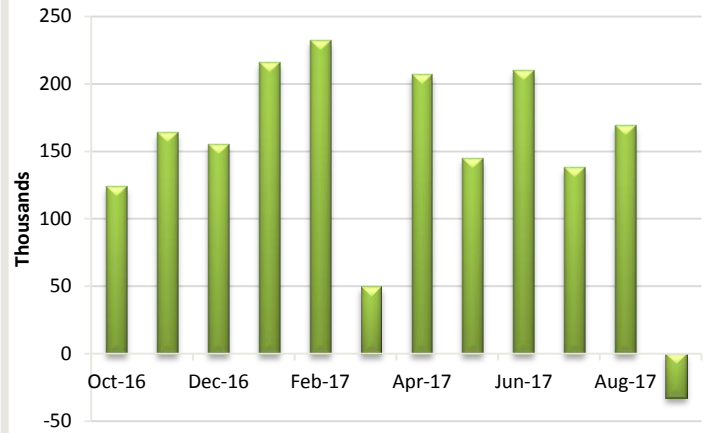
## Economic Data

Real GDP Growth Rate - Annualized - 12 Qtrs.



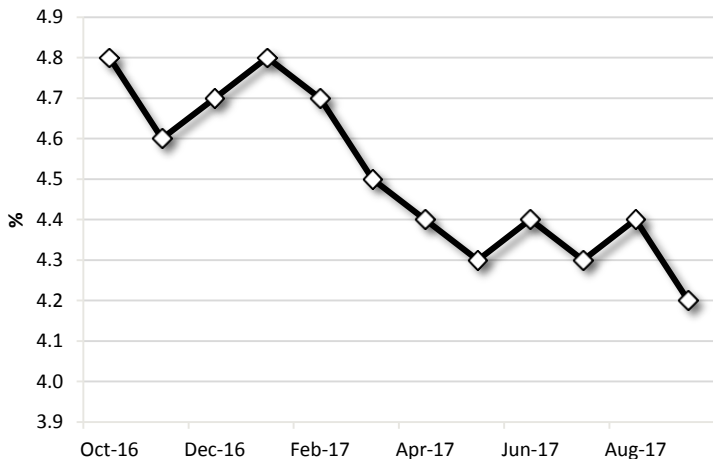
Source: Bloomberg

Non-Farm Payrolls-Trailing 12 Mos.



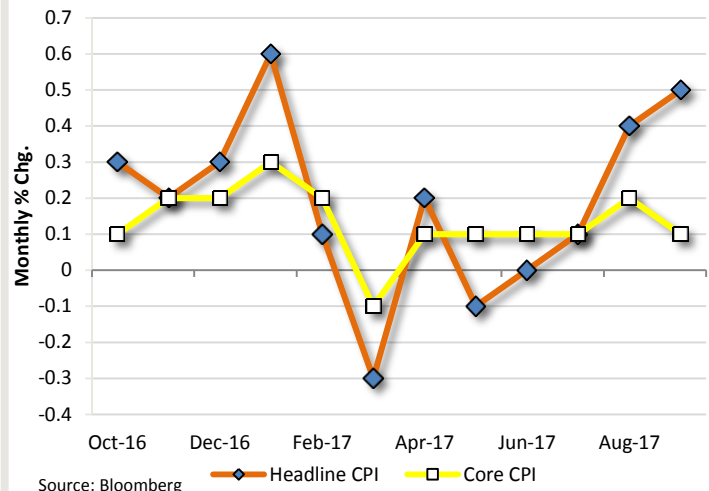
Source: Bloomberg

Unemployment Rate-Trailing 12 Mos.



Source: Bloomberg

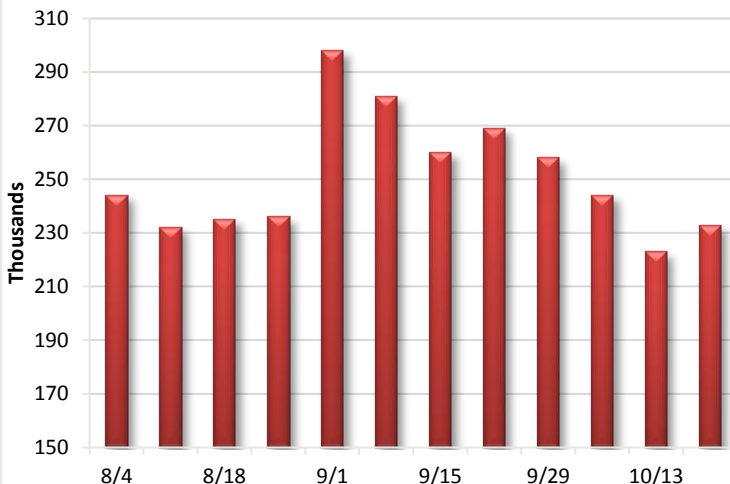
Consumer Price Index-Trailing 12 Mos.



Source: Bloomberg

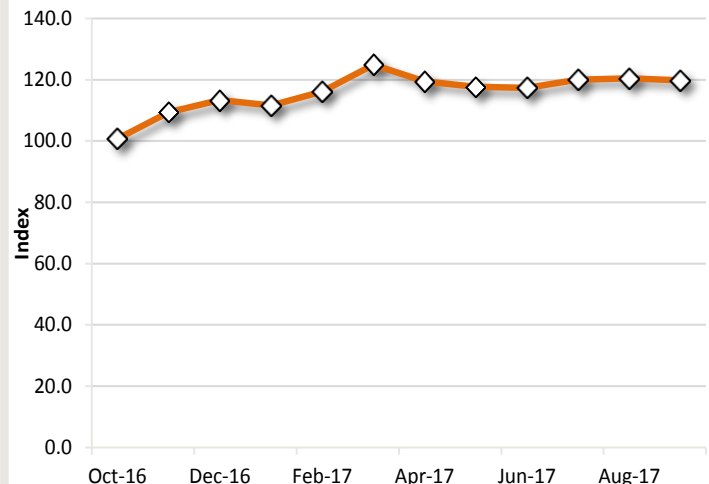
—◆— Headline CPI —□— Core CPI

Initial Jobless Claims-Trailing 12 Wks.



Source: Bloomberg

Consumer Board Confidence Index - Trailing 12 Mos.



Source: Bloomberg

## Eurozone

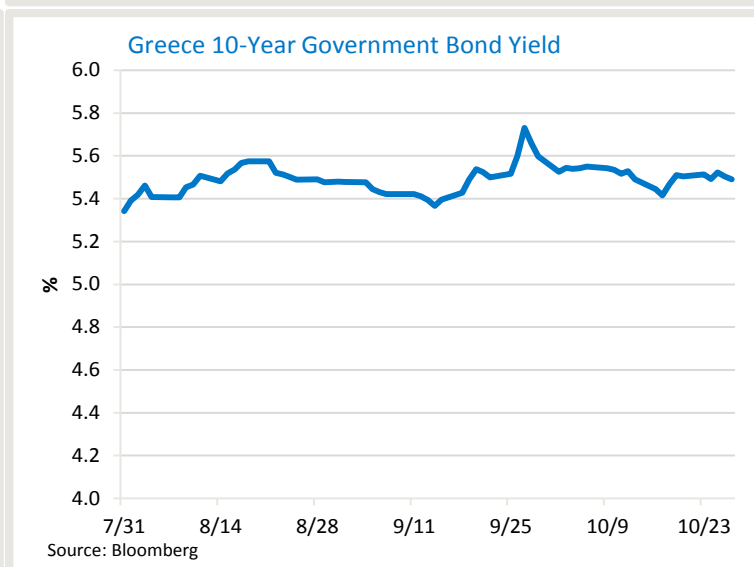
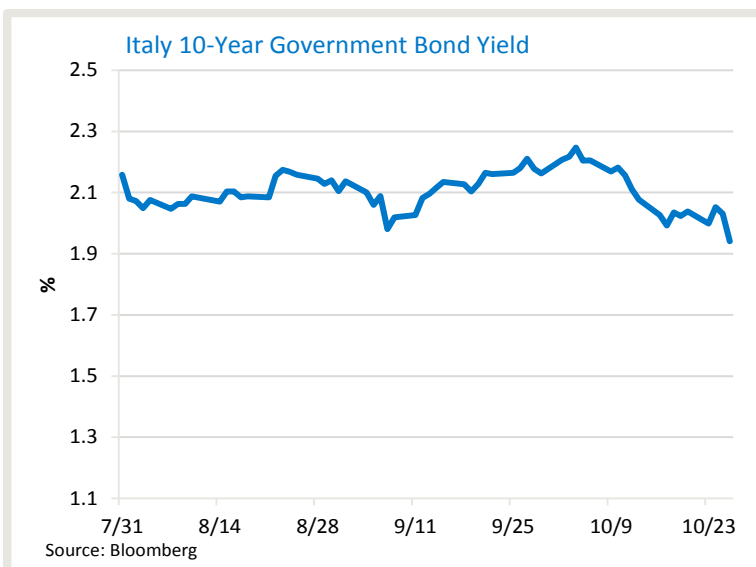
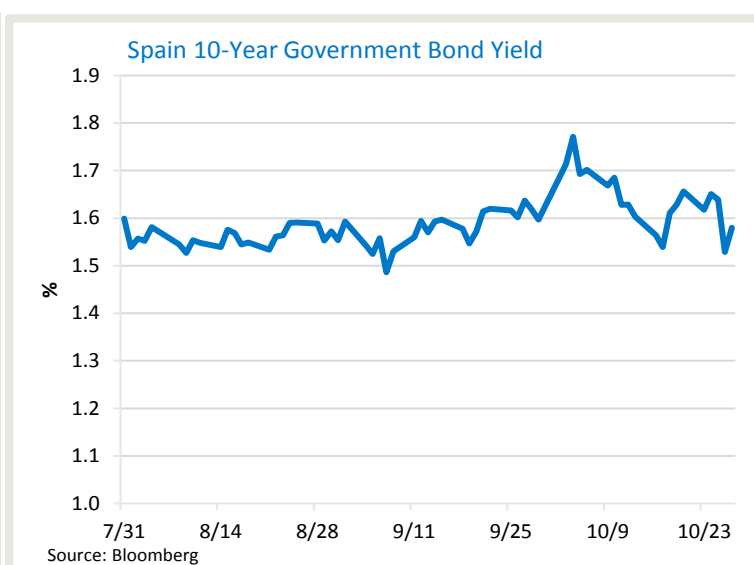
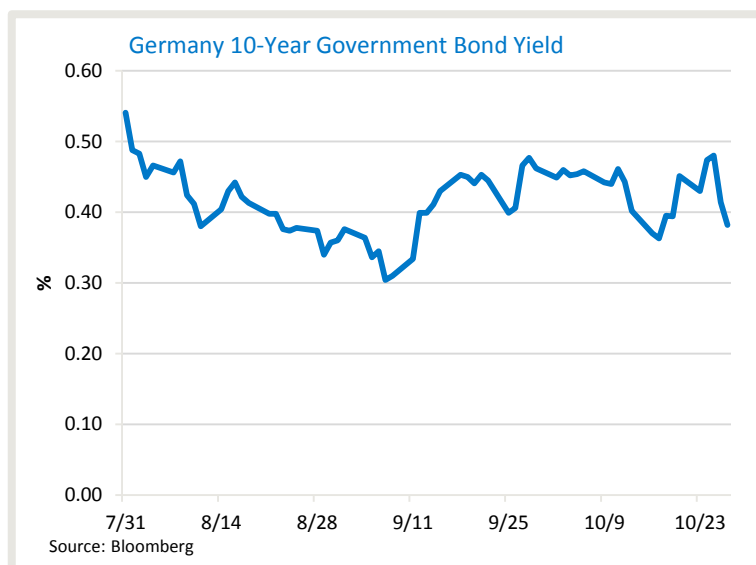
## SELECTED EUROPEAN SOVEREIGN YIELD PERFORMANCE

	Last	Change	% Chg.	YTD %
Germany 10-Yr. Govt.	0.38	7 bps	NM	NM
Greece 10-Yr. Govt.	5.49	1 bps	NM	NM
Italy 10-Yr. Govt.	1.94	8 bps	NM	NM
Spain 10-Yr. Govt.	1.58	7 bps	NM	NM
Belgium 10-Yr. Govt.	0.63	7 bps	NM	NM

Source: Bloomberg

Basis points (bps)

	Last	Change	% Chg.	YTD %
France 10-Yr. Govt.	0.79	7 bps	NM	NM
Ireland 10-Yr. Govt.	0.60	6 bps	NM	NM
Portugal 10-Yr. Govt.	2.18	10 bps	NM	NM
Netherlands 10-Yr. Govt.	0.48	7 bps	NM	NM
U.K. 10-Yr. Govt.	1.35	-2 bps	NM	NM



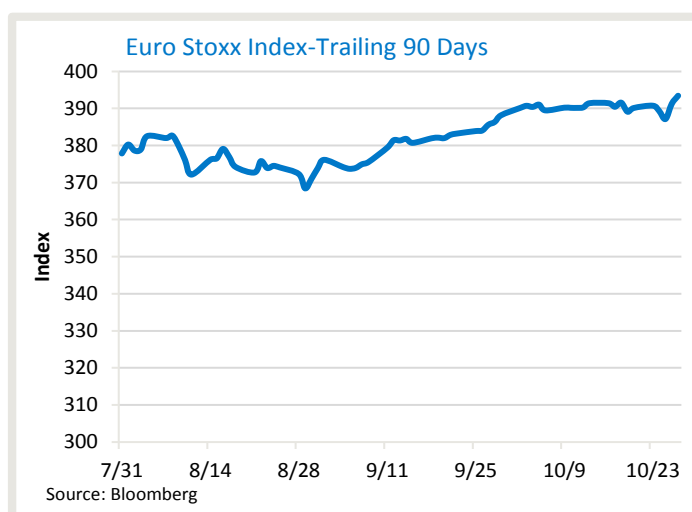
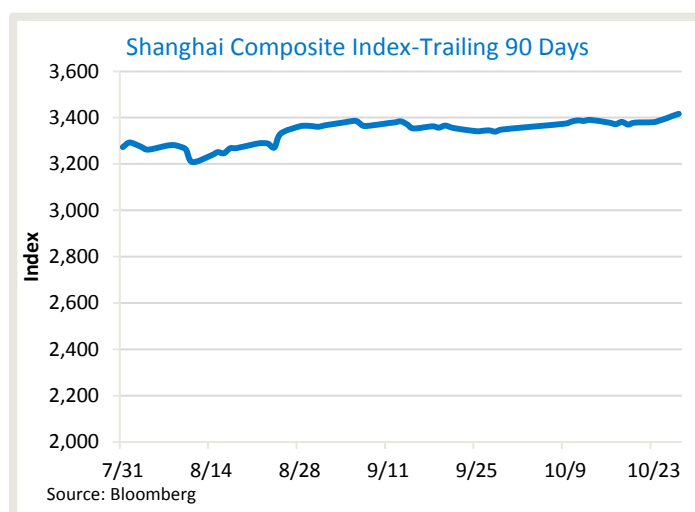
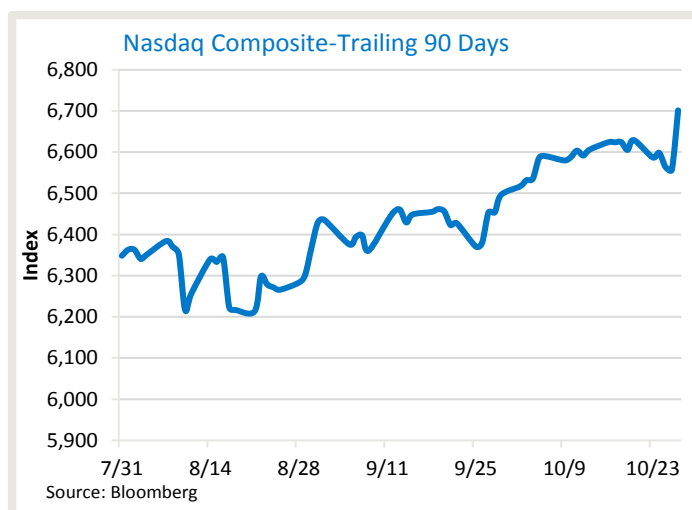
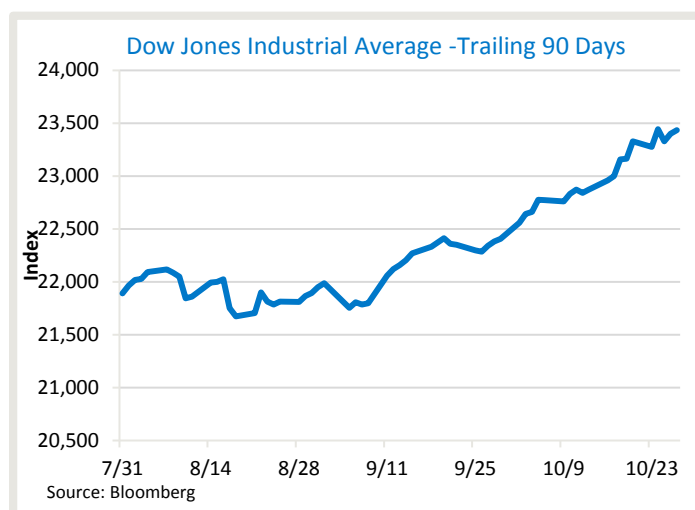
## Equities

## WORLD MARKET PERFORMANCE

	Last	Change	% Chg.	YTD %
<b>S&amp;P 500</b>	<b>2,581.07</b>	<b>5.86</b>	<b>0.23%</b>	<b>15.29%</b>
<b>Dow Industrials</b>	<b>23,434.19</b>	<b>105.56</b>	<b>0.45%</b>	<b>18.58%</b>
<b>Nasdaq Composite</b>	<b>6,701.26</b>	<b>72.21</b>	<b>1.09%</b>	<b>24.49%</b>
<b>Russell Global</b>	<b>2,061.40</b>	<b>-11.17</b>	<b>-0.54%</b>	<b>17.0%</b>
<b>Russell Global EM</b>	<b>3,480.67</b>	<b>-28.65</b>	<b>-0.82%</b>	<b>27.4%</b>
<b>S&amp;P/TSX (Canada)</b>	<b>15,953.51</b>	<b>96.29</b>	<b>0.61%</b>	<b>4.36%</b>
<b>Mexico IPC</b>	<b>49,209.58</b>	<b>-779.13</b>	<b>-1.56%</b>	<b>7.81%</b>
<b>Brazil Bovespa</b>	<b>75,975.71</b>	<b>-414.81</b>	<b>-0.54%</b>	<b>26.15%</b>
<b>Euro Stoxx 600</b>	<b>393.43</b>	<b>3.30</b>	<b>0.85%</b>	<b>8.86%</b>
<b>FTSE 100</b>	<b>7,505.03</b>	<b>-18.20</b>	<b>-0.24%</b>	<b>5.07%</b>
<b>IBEX 35 (Spain)</b>	<b>10,197.50</b>	<b>-25.20</b>	<b>-0.25%</b>	<b>9.04%</b>

Source: Bloomberg; Index % change is based on price.

	Last	Change	% Chg.	YTD %
<b>Swiss Market Index</b>	<b>9,183.42</b>	<b>-53.71</b>	<b>-0.58%</b>	<b>11.72%</b>
<b>CAC 40 Index (France)</b>	<b>5,494.13</b>	<b>121.75</b>	<b>2.27%</b>	<b>12.99%</b>
<b>DAX Index (Germany)</b>	<b>13,217.54</b>	<b>226.26</b>	<b>1.74%</b>	<b>15.12%</b>
<b>Irish Overall Index</b>	<b>6,901.33</b>	<b>111.55</b>	<b>1.64%</b>	<b>5.89%</b>
<b>Nikkei 225</b>	<b>22,008.45</b>	<b>550.81</b>	<b>2.57%</b>	<b>15.14%</b>
<b>Hang Seng Index</b>	<b>28,438.85</b>	<b>-48.39</b>	<b>-0.17%</b>	<b>29.26%</b>
<b>Shanghai Composite</b>	<b>3,416.81</b>	<b>38.17</b>	<b>1.13%</b>	<b>10.09%</b>
<b>Kospi Index (S. Korea)</b>	<b>2,496.63</b>	<b>7.09</b>	<b>0.28%</b>	<b>23.20%</b>
<b>Taiwan Taiex Index</b>	<b>10,709.11</b>	<b>-19.77</b>	<b>-0.18%</b>	<b>15.73%</b>
<b>Tel Aviv 25 Index</b>	<b>1,438.18</b>	<b>2.62</b>	<b>0.18%</b>	<b>-2.22%</b>
<b>MICEX Index (Russia)</b>	<b>2,068.76</b>	<b>-3.07</b>	<b>-0.15%</b>	<b>-7.34%</b>



## Equities – Emerging and Frontier Markets

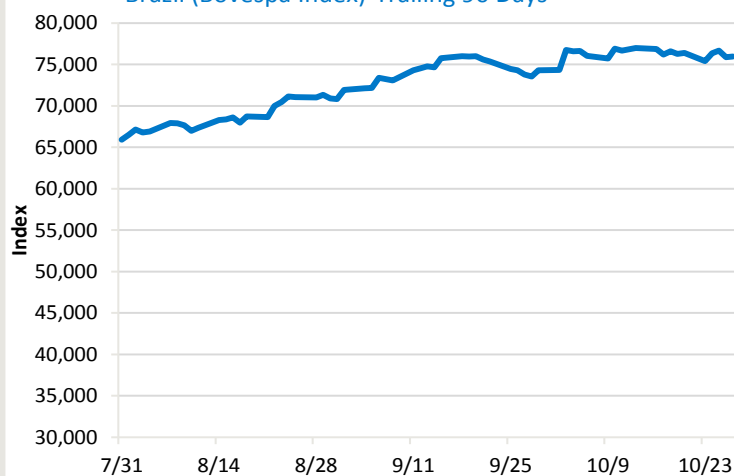
### EMERGING AND FRONTIER MARKET PERFORMANCE

	Last	Change	% Chg.	YTD %
Mexico IPC	49,209.58	-779.13	-1.6%	7.8%
Brazil (Bovespa Index)	75,975.71	-414.81	-0.5%	26.1%
MICEX Index (Russia)	2,068.76	-3.07	-0.1%	-7.3%
Czech Republic (Prague)	1,062.28	5.67	0.5%	15.3%
Turkey (Istanbul)	107,884.03	-604.70	-0.6%	38.1%
Egypt (Hermes Index)	1,320.88	13.40	1.0%	21.3%
Kenya (Nairobi 20 Index)	3,648.31	104.32	2.9%	14.5%
Saudi Arabia (TASI Index)	6,910.65	-100.61	-1.4%	-4.2%
Lebanon (Beirut BLOM Index)	1,160.50	8.72	0.8%	-4.2%
Palestine	575.07	-2.71	-0.5%	8.5%

Source: Bloomberg; Index % change is based on price.

	Last	Change	% Chg.	YTD %
Hang Seng Index	28,438.85	-48.39	-0.2%	29.3%
India (Sensex 30)	33,157.22	767.26	2.4%	24.5%
Malaysia (KLCI Index)	1,746.13	5.48	0.3%	6.4%
Singapore (Straits Times Index)	3,386.44	45.71	1.4%	17.6%
Thailand (SET Index)	1,716.03	8.50	0.5%	11.2%
Indonesia (Jakarta)	5,975.28	45.73	0.8%	12.8%
Pakistan (Karachi KSE 100)	41,105.40	-982.49	-2.3%	-14.0%
Vietnam (Ho Chi Minh)	840.37	13.53	1.6%	26.4%
Sri Lanka (Colombo)	6,612.91	40.21	0.6%	6.2%
Cambodia (Laos)	1,031.08	7.15	0.7%	1.6%

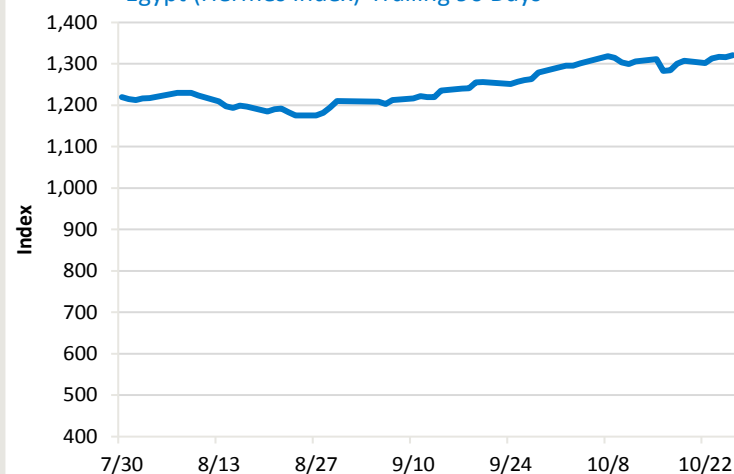
Brazil (Bovespa Index)-Trailing 90 Days



India (Sensex Index)-Trailing 90 Days



Egypt (Hermes Index)-Trailing 90 Days



Singapore (Straits Times Index)-Trailing 90 Days

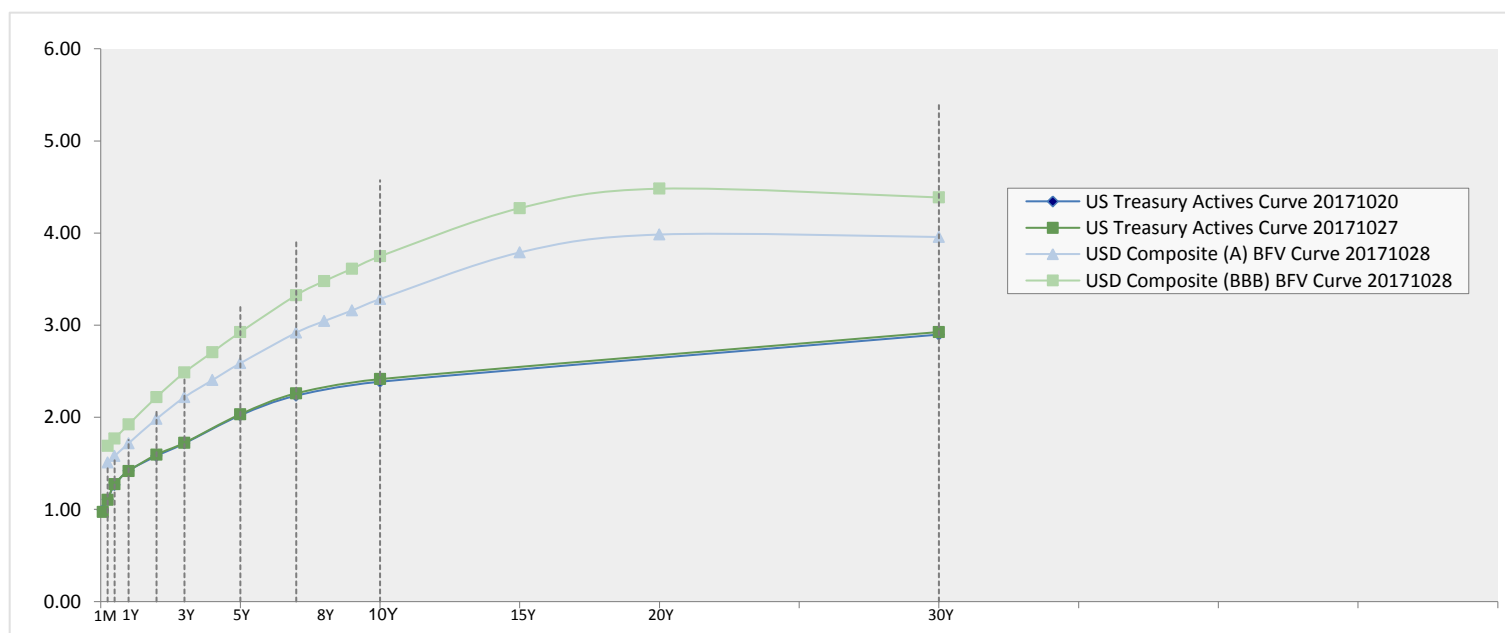


## Interest Rates

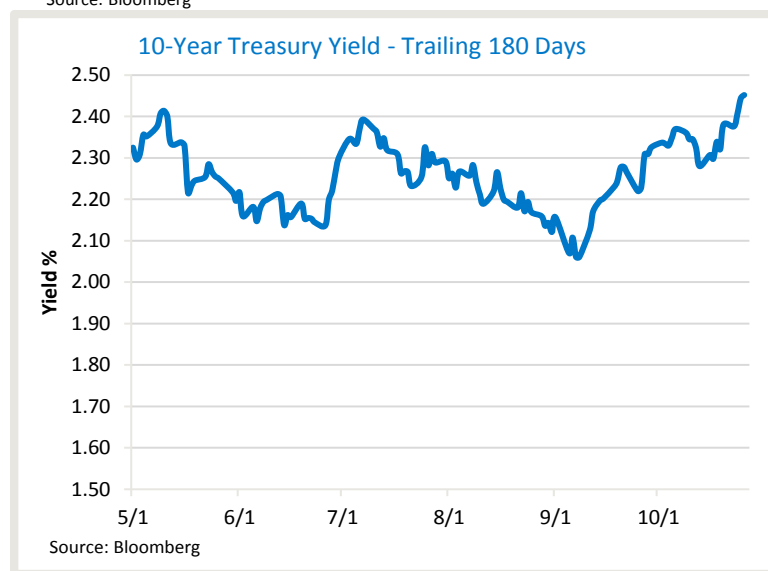
SELECTED INTEREST RATES

	Last	Change	% Chg.	YTD %		Last	Change	% Chg.	YTD %
2-Yr. U.S. Treasury	1.59%	0 bps	NM	NM	Prime Rate	4.25%	0.00	NM	NM
5-Yr. U.S. Treasury	2.04%	2 bps	NM	NM	Fed Funds Rate	1.25%	0.00	NM	NM
10-Yr. U.S. Treasury	2.43%	5 bps	NM	NM	Discount Rate	1.75%	0.00	NM	NM
30-Yr. U.S. Treasury	2.94%	4 bps	NM	NM	LIBOR (3 Mo.)	1.38%	1 bps	NM	NM
German 10-Yr. Govt.	0.38%	7 bps	NM	NM	Bond Buyer 40 Muni	3.53%	11 bps	NM	NM
France 10-Yr.	0.79%	7 bps	NM	NM	Bond Buyer 40 G.O.	3.65%	NA	NM	NM
Italy 10-Yr.	1.94%	8 bps	NM	NM	Bond Buyer 40 Rev.	3.98%	NA	NM	NM
Fed 5-Yr Fwd BE Inf.	1.79%	-1 bps	NM	NM					

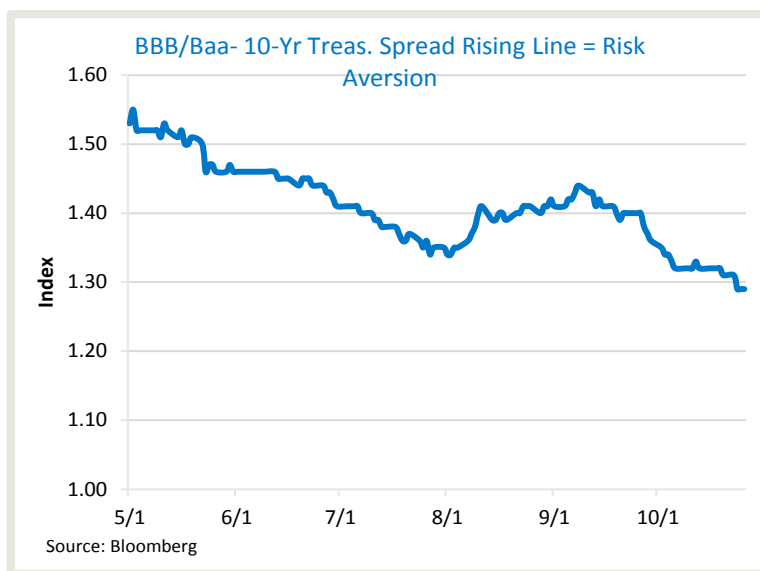
Source: Bloomberg



Source: Bloomberg



Source: Bloomberg



Source: Bloomberg



## Currencies

### SELECTED CURRENCY PERFORMANCE

	Last	Change	% Chg.	YTD %
<b>Dollar Index</b>	<b>94.81</b>	<b>1.139</b>	<b>1.22%</b>	<b>-7.21%</b>
<b>Euro</b>	<b>1.16</b>	<b>-0.018</b>	<b>-1.49%</b>	<b>10.37%</b>
<b>Japanese Yen</b>	<b>113.68</b>	<b>0.130</b>	<b>-0.11%</b>	<b>2.91%</b>
<b>British Pound</b>	<b>1.31</b>	<b>-0.006</b>	<b>-0.42%</b>	<b>6.44%</b>
<b>Canadian Dollar</b>	<b>1.28</b>	<b>0.020</b>	<b>-1.55%</b>	<b>4.79%</b>

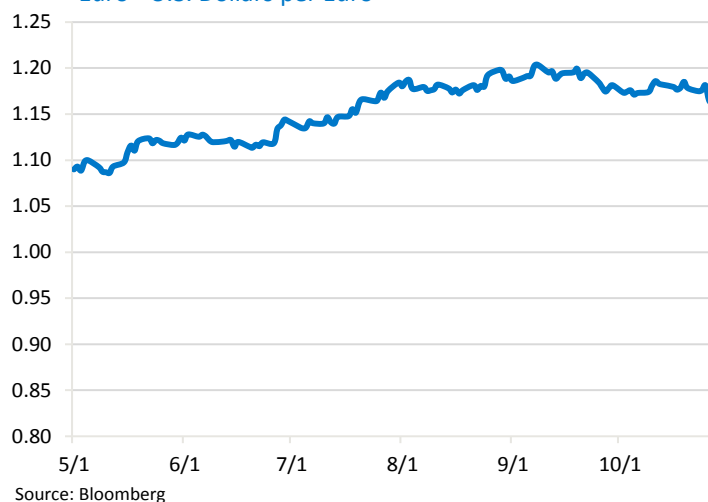
Source: Bloomberg

	Last	Change	% Chg.	YTD %
<b>Chinese Yuan</b>	<b>6.65</b>	<b>0.030</b>	<b>-0.45%</b>	<b>4.43%</b>
<b>Swiss Franc</b>	<b>1.00</b>	<b>0.013</b>	<b>-1.30%</b>	<b>2.19%</b>
<b>New Zealand Dollar</b>	<b>0.69</b>	<b>-0.009</b>	<b>-1.29%</b>	<b>-0.88%</b>
<b>Brazilian Real</b>	<b>3.24</b>	<b>0.042</b>	<b>-1.30%</b>	<b>0.45%</b>
<b>Mexican Peso</b>	<b>19.16</b>	<b>0.156</b>	<b>-0.81%</b>	<b>8.22%</b>

U.S. Dollar Index - Trailing Six Months



Euro - U.S. Dollars per Euro



Chinese yuan - yuan per U.S. Dollar



Japanese yen - Yen per U.S. Dollar



## Commodities

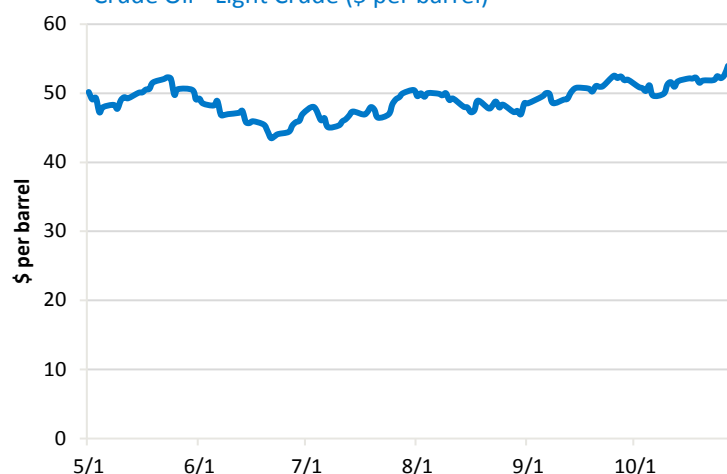
### SELECTED COMMODITY MARKET PERFORMANCE

	Last	Change	% Chg.	YTD %
<b>Bloomberg Comm. Idx.</b>	<b>85.87</b>	<b>0.60</b>	<b>0.70%</b>	<b>-1.88%</b>
<b>Crude Oil</b>	<b>\$54.01</b>	<b>\$2.13</b>	<b>4.11%</b>	<b>-5.42%</b>
<b>Natural Gas</b>	<b>\$2.97</b>	<b>-\$0.15</b>	<b>-4.69%</b>	<b>-19.88%</b>
<b>Gasoline (\$/Gal.)</b>	<b>\$2.47</b>	<b>\$0.01</b>	<b>0.29%</b>	<b>5.57%</b>
<b>Heating Oil</b>	<b>187.11</b>	<b>6.56</b>	<b>3.63%</b>	<b>4.46%</b>
<b>Gold Spot</b>	<b>\$1,272.99</b>	<b>-\$6.87</b>	<b>-0.54%</b>	<b>10.99%</b>
<b>Silver Spot</b>	<b>\$16.85</b>	<b>-\$0.18</b>	<b>-1.04%</b>	<b>5.80%</b>

Source: Bloomberg; % change is based on price.

	Last	Change	% Chg.	YTD %
<b>Platinum Spot</b>	<b>\$916.33</b>	<b>-\$7.54</b>	<b>-0.82%</b>	<b>1.46%</b>
<b>Corn</b>	<b>348.75</b>	<b>4.25</b>	<b>1.23%</b>	<b>-8.22%</b>
<b>Wheat</b>	<b>427.25</b>	<b>1.25</b>	<b>0.29%</b>	<b>-8.12%</b>
<b>Soybeans</b>	<b>986.50</b>	<b>-2.75</b>	<b>-0.28%</b>	<b>-0.65%</b>
<b>Sugar</b>	<b>14.63</b>	<b>0.63</b>	<b>4.50%</b>	<b>-21.26%</b>
<b>Orange Juice</b>	<b>153.85</b>	<b>-1.35</b>	<b>-0.87%</b>	<b>-17.42%</b>
<b>Aluminum</b>	<b>2,190.00</b>	<b>54.00</b>	<b>2.53%</b>	<b>29.36%</b>
<b>Copper</b>	<b>6,986.00</b>	<b>34.00</b>	<b>0.49%</b>	<b>26.20%</b>

Crude Oil - Light Crude (\$ per barrel)



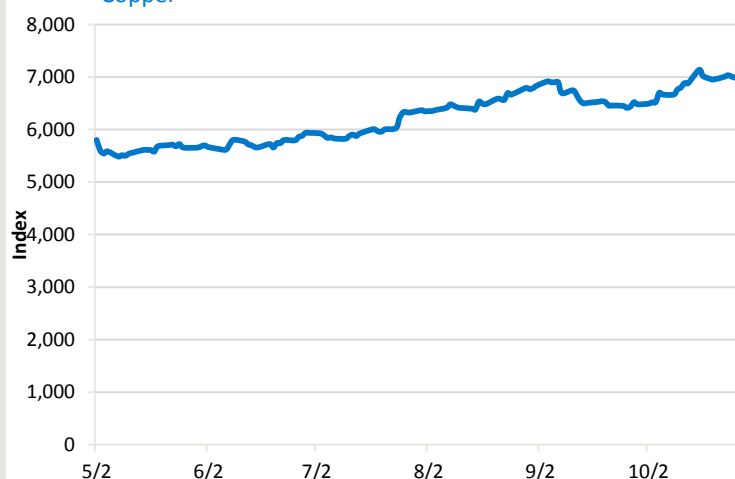
Source: Bloomberg

Gold - Spot gold price (\$ per ounce)



Source: Bloomberg

Copper



Source: Bloomberg

Corn - Active Contract



Source: Bloomberg

## Alternative Investments

### SELECTED ALTERNATIVE INVESTMENT INDEX PERFORMANCE

	Last	Change	% Chg.	YTD %
HFRX Global Hedge Fund Index	1260.34	-3.36	-0.27%	4.73%
HFRX Equity Market Neutral	1013.76	5.42	0.54%	2.68%
HFRX Equity Hedge Index	1240.85	-5.11	-0.41%	7.39%
HFRX Event-Driven Index	1661.59	-3.37	-0.20%	6.21%
HFRX Absolute Return Index	1064.30	0.31	0.03%	3.48%

	Last	Change	% Chg.	YTD %
HFRX Distressed Index	1088.26	-2.99	-0.27%	1.42%
HFRX Merger Arbitrage Index	1841.20	-2.50	-0.14%	1.58%
HFRX Convertible Arbitrage Index	788.70	-0.30	-0.04%	6.21%
HFRX Macro CTA Index	1148.55	-1.00	-0.09%	1.16%
IQ Fixed Income Beta Arb Index	1463.80	0.14	0.01%	3.09%

Source: Bloomberg; Index % change is based on price.

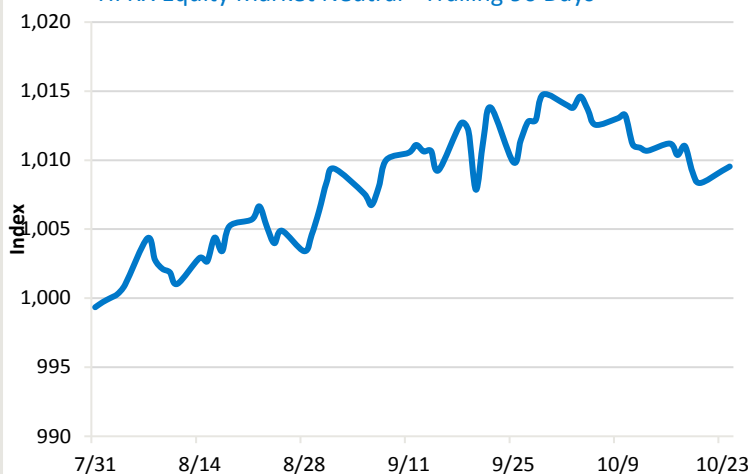
HFRX Global Hedge Fund Index - Trailing 90 Days



HFRX Equity Hedge Index - Trailing 90 Days



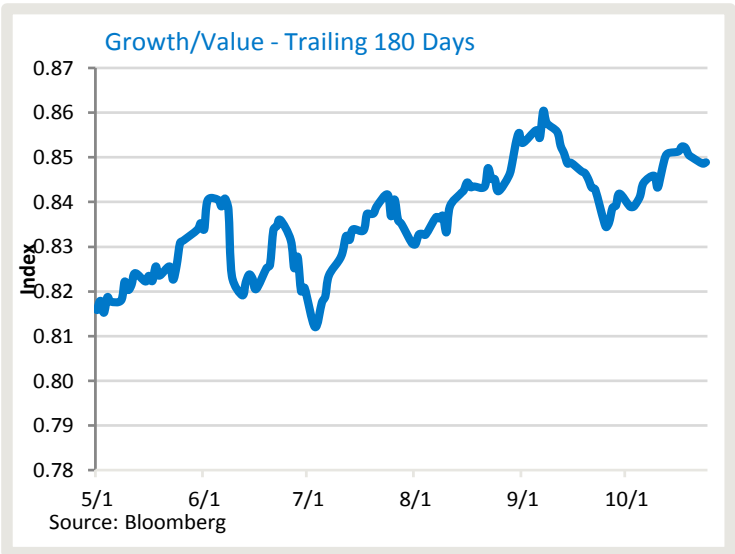
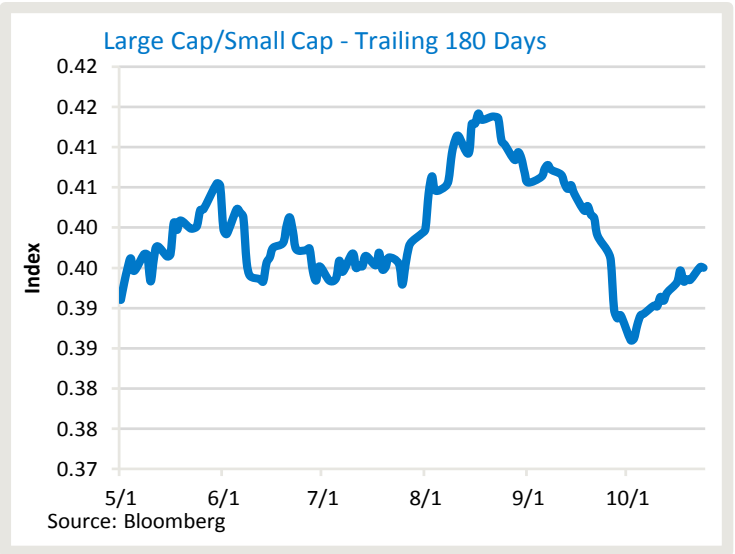
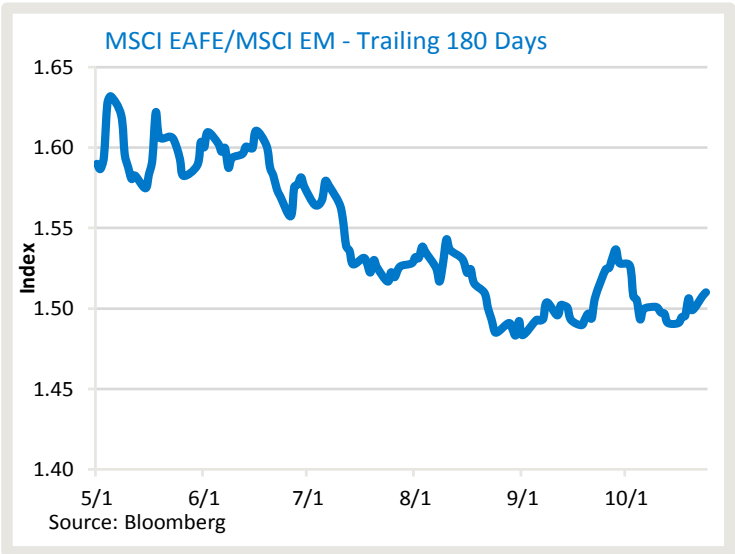
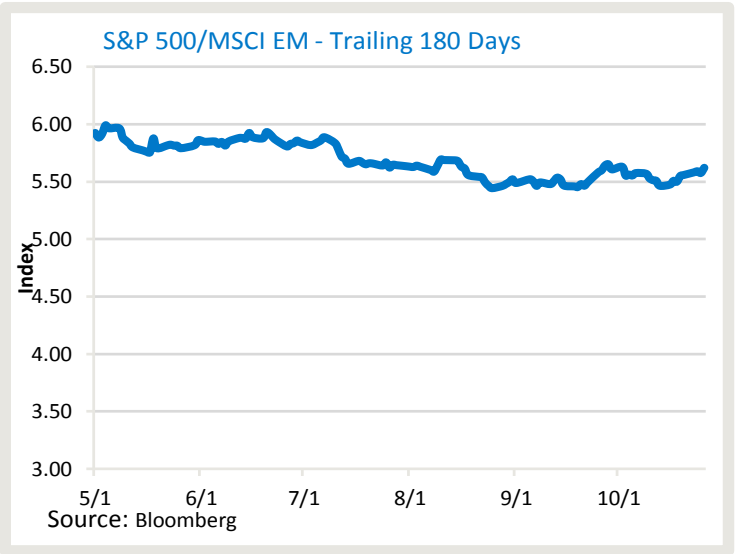
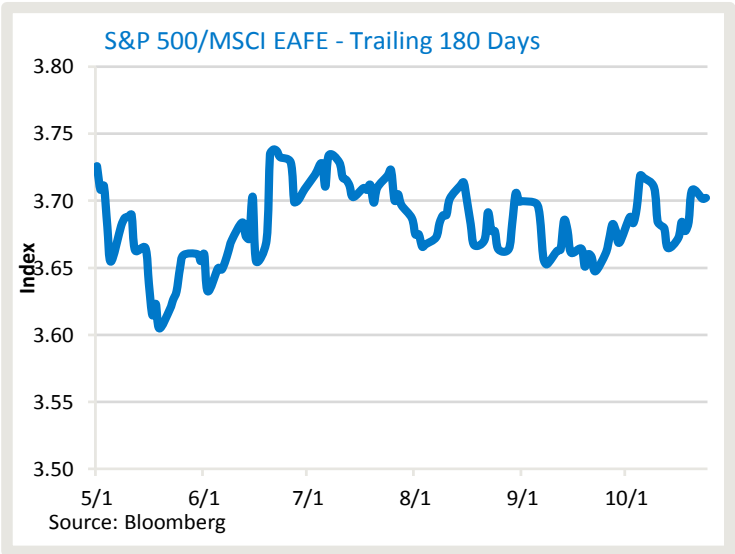
HFRX Equity Market Neutral - Trailing 90 Days



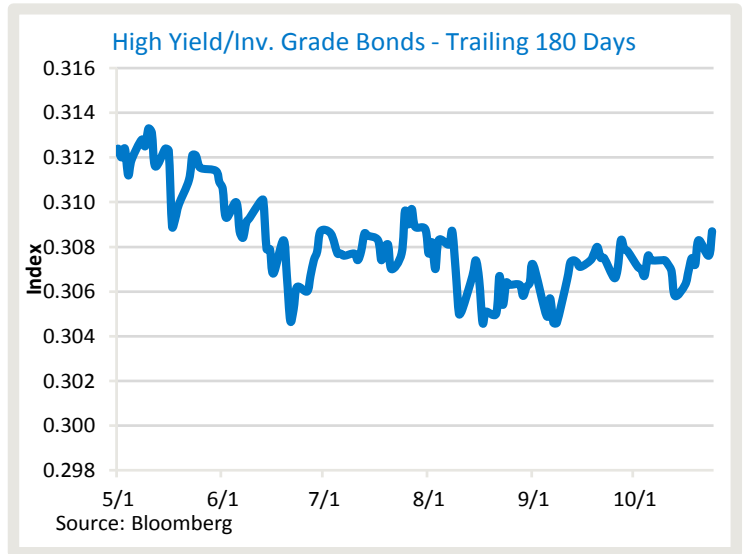
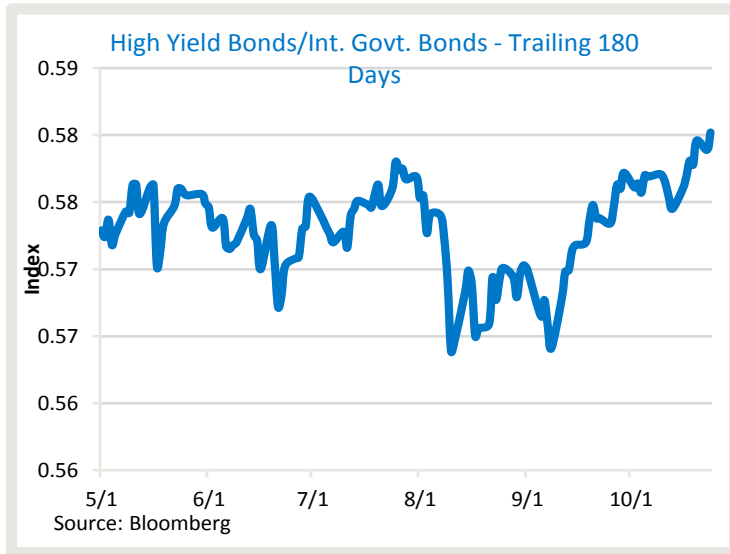
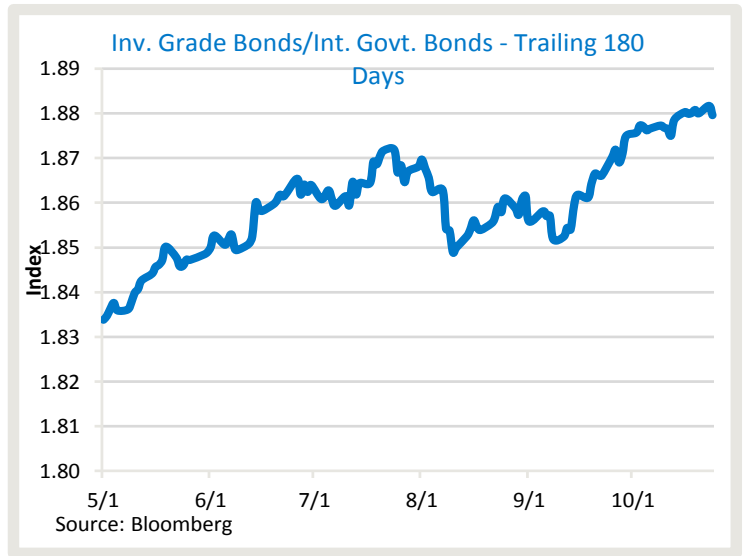
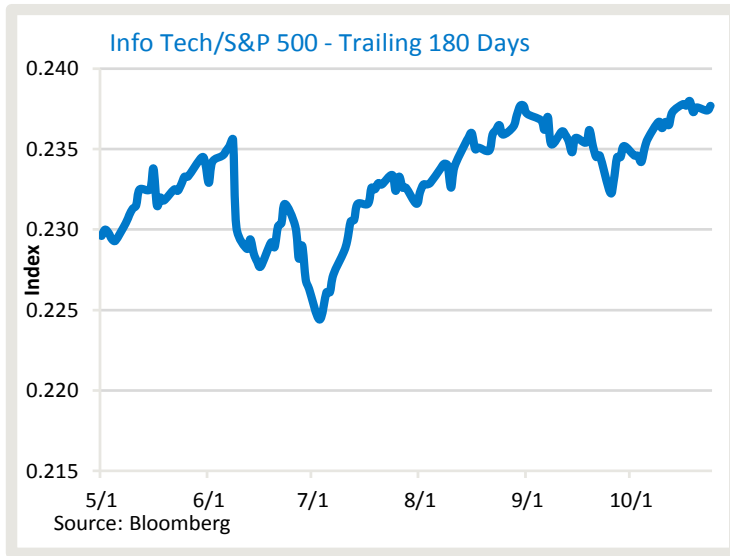
IQ Fixed Income Beta Arb Index - Trailing 90 Days



Portfolio Construction



## Portfolio Construction (continued)



## WEEKLY ASSET CLASS PERFORMANCE (Prior 12 weeks ending Thursday)

			8/10	8/17	8/24	8/31	9/7	9/14	9/21	9/28	10/5	10/12	10/19	10/26
Equity	Domestic Equity	Large Cap (R200)	-1.24%	-0.30%	0.35%	1.41%	-0.30%	1.22%	0.26%	0.22%	1.69%	-0.06%	0.47%	-0.08%
		Small Cap (R2000)	-2.33%	-0.99%	1.10%	2.29%	-0.47%	1.88%	1.34%	3.09%	1.57%	-0.46%	-0.21%	-0.31%
	Int'l. Equity	MSCI EAFE	-1.43%	-0.06%	0.35%	0.59%	0.94%	0.52%	0.52%	-0.30%	0.52%	1.11%	0.52%	-0.69%
		MSCI Em. Mkts.	-0.74%	0.67%	1.80%	0.49%	0.22%	0.90%	0.75%	-3.23%	2.83%	1.71%	-0.42%	-0.78%
Fixed Income	BarCap Agg. (AGG)		-7.09%	0.35%	0.52%	-1.20%	12.35%	-4.80%	0.81%	-5.32%	2.39%	8.49%	-8.59%	-0.67%
	High Yield (JNK)		-1.42%	0.27%	0.73%	0.57%	-0.59%	0.32%	-0.03%	0.38%	-0.16%	-0.19%	0.35%	-0.40%
Commodities	Bloomberg Commodity Index		0.25%	-1.03%	1.01%	1.37%	1.19%	-0.66%	-0.37%	-0.17%	-0.06%	0.64%	0.31%	0.61%
Alternatives	Hedge Funds (HFRX Global)		-0.58%	0.07%	0.34%	0.59%	0.17%	0.09%	0.23%	0.00%	0.55%	-0.11%	0.05%	-0.08%
Asset Allocation	60/40*		-3.41%	-0.03%	0.47%	0.37%	4.31%	-0.99%	0.61%	-1.67%	1.71%	3.15%	-2.81%	-0.45%
	48/32/20 (w/Alts.)**		-2.84%	-0.01%	0.44%	0.41%	3.48%	-0.77%	0.53%	-1.34%	1.48%	2.50%	-2.24%	-0.38%

Source: Bloomberg; \*60/40 portfolio = 30% Large Cap/10% Small Cap/15% EAFE/5% Emerging Markets/35% BarCap Agg./5% High Yield.

\*\*48/32/20 portfolio = 24% Large Cap/8% Small Cap/12% EAFE/4% Emerging Markets/28% BarCap Agg./4% High Yield/20% HFRX Global Index.

## RELATIVE STRENGTH MATRIX (BASED ON 30-DAY RSI)

	Large Cap Core	Large Cap Growth	Large Cap Value	Mid Cap Core	Mid Cap Growth	Mid Cap Value	Small Cap Core	Small Cap Growth	Small Cap Value	Int'l. Developed	Emerging Markets	REITs	Comm.	Int. Bond	High Yield
Large Cap Core	1.00	1.01	1.04	1.03	0.97	1.12	1.05	1.04	1.07	1.08	1.13	1.39	1.12	1.35	1.30
Large Cap Growth	0.99	1.00	1.03	1.02	0.96	1.11	1.04	1.03	1.06	1.06	1.12	1.38	1.11	1.33	1.28
Large Cap Value	0.96	0.97	1.00	1.00	0.93	1.08	1.01	1.00	1.03	1.04	1.09	1.34	1.08	1.30	1.25
Mid Cap Core	0.97	0.98	1.00	1.00	0.93	1.09	1.01	1.00	1.03	1.04	1.10	1.35	1.08	1.30	1.25
Mid Cap Growth	1.04	1.05	1.07	1.07	1.00	1.16	1.08	1.07	1.11	1.11	1.17	1.44	1.16	1.39	1.34
Mid Cap Value	0.89	0.90	0.92	0.92	0.86	1.00	0.93	0.92	0.95	0.96	1.01	1.24	0.99	1.20	1.15
Small Cap Core	0.96	0.97	0.99	0.99	0.92	1.07	1.00	0.99	1.02	1.03	1.08	1.33	1.07	1.29	1.24
Small Cap Growth	0.96	0.97	1.00	1.00	0.93	1.08	1.01	1.00	1.03	1.04	1.09	1.34	1.08	1.30	1.25
Small Cap Value	0.94	0.95	0.97	0.97	0.90	1.05	0.98	0.97	1.00	1.01	1.06	1.30	1.05	1.26	1.21
Int'l. Developed	0.93	0.94	0.97	0.96	0.90	1.05	0.97	0.97	0.99	1.00	1.05	1.30	1.04	1.25	1.21
Emerging Markets	0.88	0.89	0.92	0.91	0.85	0.99	0.92	0.92	0.94	0.95	1.00	1.23	0.99	1.19	1.14
REITs	0.72	0.73	0.75	0.74	0.69	0.81	0.75	0.75	0.77	0.77	0.81	1.00	0.80	0.97	0.93
Commodities	0.89	0.90	0.93	0.93	0.86	1.01	0.94	0.93	0.96	0.96	1.01	1.25	1.00	1.20	1.16
Int. Bond	0.74	0.75	0.77	0.77	0.72	0.84	0.78	0.77	0.79	0.80	0.84	1.04	0.83	1.00	0.96
High Yield	0.77	0.78	0.80	0.80	0.74	0.87	0.81	0.80	0.82	0.83	0.87	1.07	0.86	1.04	1.00

Source: Bloomberg

The Relative Strength Matrix provides an indication of how the various asset classes have performed relative to one another over the past 30 days. A number greater than 1.0 indicates that the asset class in the far left column has outperformed the corresponding asset class in the top row over the past 30 days. A number below 1.0 means the asset class on the left has underperformed the asset class at the top. The green shading indicates outperformance, and the red shading indicates underperformance.

## Index Overview &amp; Key Definitions

**Fed, The Fed or FED** refers to the Federal Reserve System, the central bank of the United States. The **Federal Open Market Committee (FOMC)** is the monetary policymaking body of the Federal Reserve System. **Fed Funds Rate**, the interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. The **European Central Bank (ECB)** is the central bank for Europe's single currency, the euro. The ECB's main task is to maintain the euro's purchasing power and thus price stability in the euro area. The euro area comprises the 19 European Union countries that have introduced the euro since 1999. The **Gross Domestic Product (GDP)** rate is a measurement of the output of goods and services produced by labor and property located in the United States. **Basis Point(s)** is a unit that is equal to 1/100th of 1%, and is used to denote the change in a financial instrument. The basis point is commonly used for calculating changes in interest rates, equity indexes and the yield of a fixed-income security. A **separately managed account (SMA)** is an individual managed investment account offered typically by a brokerage firm through one of their brokers or financial consultants and managed by independent investment management firms (often called money managers for short) and have varying fee structures. The **Consumer Price Index (CPI)** measures the change in the cost of a fixed basket of products and services. The **Producer Price Index (PPI)** program measures the average change over time in the selling prices received by domestic producers for their output. The prices included in the PPI are from the first commercial transaction for many products and some services. **Core CPI** is an additional CPI Index, excludes energy and food item price changes, and measures the "core" or "underlying" rate of inflation. The **PCE (Personal Consumption Expenditure) Index of Prices** is a US-wide indicator of the average increase in prices for all domestic personal consumption. Using a variety of data including U.S. Consumer Price Index and Producer Price Index prices, it is derived from personal consumption expenditures; essentially a measure of goods and services targeted towards individuals and consumed by individuals.

The **Dow Jones Industrial Average (DOW or DJIA)** is an unmanaged index of 30 common stocks comprised of 30 actively traded blue chip stocks, primarily industrials and assumes reinvestment of dividends. The **S&P 500 Index** is an unmanaged index comprised of 500 widely held securities considered to be representative of the stock market in general. The **S&P/Case-Shiller Home Price Indices** measure the residential housing market, tracking changes in the value of the residential real estate market in 20 metropolitan regions across the United States. The **Nasdaq Composite Index** is a stock market index of the common stocks and similar securities listed on the NASDAQ stock market. The **US Dollar Index** is a measure of the value of the United States dollar relative to a basket of foreign currencies. It is a weighted geometric mean of the dollar's value relative to other select currencies (Euro, Japanese yen, Pound sterling, Canadian dollar, Swedish krona (SEK) & Swiss franc). The **Nikkei Index (Nikkei 225 or Nikkei)** is a stock market index for the Tokyo Stock Exchange calculated daily by the Nihon Keizai Shimbun (Nikkei) newspaper since 1950. It is a price-weighted index (the unit is yen), and the components are reviewed once a year. The **FTSE 100 Index (FTSE 100)** is a share index of the 100 companies listed on the London Stock Exchange (LSE) with the highest market capitalization. The **Bloomberg Commodity Index (formerly the Dow Jones-UBS Commodity Index)** tracks prices of futures contracts on physical commodities on the commodity markets and is designed to minimize concentration in any one commodity or sector (currently 22 commodity futures in seven sectors). The **Barclays Capital US Credit Index** is an unmanaged index considered representative of publicly issued, SEC-registered US corporate and specified foreign debentures and secured notes. The **Barclays Capital US Aggregate Bond Index** is a market capitalization-weighted index of investment-grade, fixed-rate debt issues, including government, corporate, asset-backed, and mortgage-backed securities, with maturities of at least one year. The **Barclays Capital US Corporate High Yield Index** covers the USD-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. The index may include emerging market debt. The **Barclays Capital Municipal Bond Index** is an unmanaged index comprised of investment-grade, fixed-rate municipal securities representative of the tax-exempt bond market in general. The **Barclays Capital US Treasury Total Return Index** is an unmanaged index of public obligations of the US Treasury with a remaining maturity of one year or more. The **Barclays Capital Global Aggregate ex-U.S. Index** is a market capitalization-weighted index, meaning the securities in the index are weighted according to the market size of each bond type. Most U.S. traded investment grade bonds are represented. Municipal bonds, and Treasury Inflation-Protected Securities are excluded, due to tax treatment issues. The index includes Treasury securities, Government agency bonds, Mortgage-backed bonds, Corporate bonds, and a small amount of foreign bonds traded in U.S. The **Barclays Capital U.S. 5-10 Year Corporate Bond Index** measures the investment return of U.S. dollar denominated, investment-grade, fixed rate, taxable securities issued by industrial, utility, and financial companies with maturities between 5 and 10 years. Treasury securities, mortgage-backed securities (MBS) foreign bonds, government agency bonds and corporate bonds are some of the categories included in the index. The **Barclays Capital U.S. Corporate High-Yield Index** is composed of fixed-rate, publicly issued, non-investment grade debt. The **Barclays Capital U.S. Corporate 5-10 Year Index** includes U.S. dollar-denominated, investment-grade, fixed-rate, taxable securities issued by industrial, utility, & financial companies, with maturities between 5 & 10 years. The **DJ-UBS Commodity Index Total Return SM** measures the collateralized returns from a basket of 19 commodity futures contracts representing the energy, precious metals, industrial metals, grains, softs and livestock sectors. The **Russell 1000 Index** is a market capitalization-weighted benchmark index made up of the 1000 largest U.S. companies in the Russell 3000 Index. The **Russell 1000 Growth Index** is an unmanaged index considered representative of large-cap growth stocks. The **Russell 1000 Value Index** is an unmanaged index considered representative of large-cap value stocks. The **Russell 2000 Index** is an unmanaged index considered representative of small-cap stocks. The **Russell 2000 Growth Index** is an unmanaged index considered representative of small-cap growth stocks. The **Russell 2000 Value Index** is an unmanaged index considered representative of small-cap value stocks. The **Russell 3000 Index** is an unmanaged index considered representative of the US stock market. The **Russell Midcap Index** is a subset of the Russell 1000 Index. It includes approximately 800 of the smallest securities based on a combination of their market cap and current index membership. The **Russell Midcap Growth Index** is an unmanaged index considered representative of mid-cap growth stocks. The **Russell Midcap Value Index** is an unmanaged index considered representative of mid-cap value stocks. The **HFRX Indices** are a series of benchmarks of hedge fund industry performance which are engineered to achieve representative performance of a larger universe of hedge fund strategies. Hedge Fund Research, Inc. employs the HFRX Methodology (UCITS compliant), a proprietary and highly quantitative process by which hedge funds are selected as constituents for the HFRX Indices. The **University of Michigan Consumer Sentiment Index (MCSI)** is a survey of consumer confidence conducted by the University of Michigan using telephone surveys to gather information on consumer expectations regarding the overall economy. The **CBOE Volatility Index (VIX)** is an up-to-the-minute market estimate of expected volatility that is calculated by using real-time S&P 500 Index option bid/ask quotes. The Index uses nearby and second nearby options with at least 8 days left to expiration and then weights them to yield a constant, 30-day measure of the expected volatility of the S&P 500 Index. The **MSCI EAFE Index** is designed to measure the equity market performance of developed markets outside of the U.S. & Canada. The **MSCI EAFE Growth Index** is an unmanaged index considered representative of growth stocks of Europe, Australasia and the Far East. The **MSCI EAFE Value Index** is an unmanaged index considered representative of value stocks of Europe, Australasia and the Far East. The **MSCI EM (Emerging Markets) Latin America Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets in Latin America. The **MSCI World ex-U.S. Index** captures large and mid-cap representation across 22 of 23 Developed Markets (DM) countries - excluding the US. With 1,002 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. The **MSCI Japan Index** is designed to measure the performance of the large and mid-cap segments of the Japanese market. With 320 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan. The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. The **MSCI Europe Index** is an unmanaged index considered representative of stocks of developed European countries. The **MSCI Pacific Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in the Pacific region. The **Barclays Intermediate US Government/Credit Bond Index** is a market capitalization-weighted index of investment-grade, fixed-rate debt issues, including Treasuries, government-related and U.S. corporate securities, with maturities of at least one year and less than 10 years. The **Philadelphia Fed Manufacturing Index** is a regional Federal Reserve Bank index measuring changes in business growth and is constructed from a survey of participants who voluntarily answer questions regarding the direction of change in their overall business activities. The **ISM Non-Manufacturing Index** is an index based on surveys of more than 400 non-manufacturing firms' purchasing and supply executives, within 60 sectors across the nation, by the Institute of Supply Management (ISM) and also tracks economic data, like the ISM Non-Manufacturing Business Activity Index. A composite diffusion index is created based on the data from these surveys that monitors economic conditions of the nation. The **Housing Market Index (HMI)** is based on a monthly survey of NAHB members designed to take the pulse of the single-family housing market. In May 2007, **Markit's U.S. PMI** research was extended out to cover producers of metal goods. In October 2009, Markit's U.S. Manufacturing PMI survey panel was extended further to cover all areas of U.S. manufacturing activity. **Federal Housing Finance Agency (FHFA) House Price Index (HPI)** is a broad measure of the movement of single-family house prices. The HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties.



The information, analysis, and opinions expressed herein are for general and educational purposes only. Nothing contained in this weekly review is intended to constitute legal, tax, accounting, securities, or investment advice, nor an opinion regarding the appropriateness of any investment, nor a solicitation of any type. All investments carry a certain risk, and there is no assurance that an investment will provide positive performance over any period of time. An investor may experience loss of principal. Investment decisions should always be made based on the investor's specific financial needs and objectives, goals, time horizon, and risk tolerance. The asset classes and/or investment strategies described may not be suitable for all investors and investors should consult with an investment advisor to determine the appropriate investment strategy. Past performance is not indicative of future results.

Information obtained from third party sources are believed to be reliable but not guaranteed. Envestnet|PMC™ makes no representation regarding the accuracy or completeness of information provided herein. All opinions and views constitute our judgments as of the date of writing and are subject to change at any time without notice.

Investments in smaller companies carry greater risk than is customarily associated with larger companies for various reasons such as volatility of earnings and prospects, higher failure rates, and limited markets, product lines or financial resources. Investing overseas involves special risks, including the volatility of currency exchange rates and, in some cases, limited geographic focus, political and economic instability, and relatively illiquid markets. Income (bond) securities are subject to interest rate risk, which is the risk that debt securities in a portfolio will decline in value because of increases in market interest rates.

Exchange Traded Funds (ETFs) are subject to risks similar to those of stocks, such as market risk. Investing in ETFs may bear indirect fees and expenses charged by ETFs in addition to its direct fees and expenses, as well as indirectly bearing the principal risks of those ETFs. ETFs may trade at a discount to their net asset value and are subject to the market fluctuations of their underlying investments. Investing in commodities can be volatile and can suffer from periods of prolonged decline in value and may not be suitable for all investors.

Index Performance is presented for illustrative purposes only and does not represent the performance of any specific investment product or portfolio. An investment cannot be made directly into an index.

Alternative Investments may have complex terms and features that are not easily understood and are not suitable for all investors. You should conduct your own due diligence to ensure you understand the features of the product before investing. Alternative investment strategies may employ a variety of hedging techniques and non-traditional instruments such as inverse and leveraged products. Certain hedging techniques include matched combinations that neutralize or offset individual risks such as merger arbitrage, long/short equity, convertible bond arbitrage and fixed-income arbitrage. Leveraged products are those that employ financial derivatives and debt to try to achieve a multiple (for example two or three times) of the return or inverse return of a stated index or benchmark over the course of a single day. Inverse products utilize short selling, derivatives trading, and other leveraged investment techniques, such as futures trading to achieve their objectives, mainly to track the inverse of their benchmarks. As with all investments, there is no assurance that any investment strategies will achieve their objectives or protect against losses.

Neither Envestnet, Envestnet|PMC™ nor its representatives render tax, accounting or legal advice. Any tax statements contained herein are not intended or written to be used, and cannot be used, for the purpose of avoiding U.S. federal, state, or local tax penalties. Taxpayers should always seek advice based on their own particular circumstances from an independent tax advisor.

© 2017 Envestnet Asset Management, Inc. All rights reserved.

#### **ABOUT ENVESTNET®**

Envestnet, Inc. (NYSE: ENV) is a leading provider of unified wealth management technology and services to investment advisors. Our open-architecture platforms unify and fortify the wealth management process, delivering unparalleled flexibility, accuracy, performance and value. Envestnet solutions enable the transformation of wealth management into a transparent, objective, independent and fully-aligned standard of care, and empower advisors to deliver better results.

Envestnet's Advisor Suite® software empowers financial advisors to better manage client outcomes and strengthen their practice. Envestnet provides institutional-quality research and advanced portfolio solutions through our Portfolio Management Consultants group, Envestnet | PMC®. Envestnet | Tamarac provides leading rebalancing, reporting and practice management software.

For more information on Envestnet, please visit [www.envestnet.com](http://www.envestnet.com).