

Weekly Market Review

November 2, 2018

Chart of the Week



Weekly Highlights

- October's employment report is strong across the board. The Department of Labor estimates that 250,000 new jobs were created in October. Every industry group added new jobs, including the beleaguered retail sector. Hourly wages were up 0.2% in the month and, notably, crossed the psychologically important 3.0% level for the trailing 12 months. The strong overall report, and particularly the solid wage growth, makes a December rate hike by the Fed all but certain.
- Businesses paying more for employees. With unemployment at 50-year lows, the cost of adding and retaining employees is rising. The Employment Cost Index (ECI) rose 0.8% in the third quarter and 2.8% over the last year. The ECI includes salaries and hourly wages as well as benefits.
- Inflation remains tame. The Commerce Department reported the Personal Consumption Expenditures inflation index was up just 0.1% in September and 2% for the trailing 12-month period. Core inflation was up 0.2% for the month and the same 2% for the trailing year.

Talking Points

- US and global equities rallied this week after a very disappointing October. US small caps were up 4%, and large caps rose roughly 3%. Europe also rallied more than 3%. Latin America was the laggard for the week, up a little more than 1%, despite a rally of more than 11% in Argentina and nearly 3% in Brazil.
- Treasury yields move higher.
 Treasury yields were four to six basis points higher through Thursday for maturities greater than one year. Friday's jobs report pushed yields another four to five basis points higher.
- The US Dollar Index ended the week slightly lower. The index rallied through the middle of Wednesday, then sold off sharply Thursday, erasing the week's gains.
- Crude oil had its worst week since February, down roughly 2.5%, as the US is expected to announce exemptions for eight countries to continue buying oil from Iran, after US sanctions are applied later this year.
- Among other economic data released this week: Housing prices were nearly unchanged for the three month period ending August and up 5.5% for the trailing year. Motor vehicle sales topped 17.5 million in October, slightly higher than in September and the best monthly number since last November.

Market Dashboard

	Last Price	Change	% Chg.	YTD %
S&P 500	2,723.06	64.37	2.42%	1.8%
Dow Industrials	25,270.83	582.52	2.36%	2.2%
Nasdaq	7,357.00	189.78	2.65%	6.6%
Russell 2000	1,547.98	64.16	4.32%	0.8%
Euro Stoxx Index	364.08	11.74	3.33%	-6.4%
Shanghai Composite	2,676.48	77.63	2.99%	-19.1%
Russell Global	2,037.98	61.18	3.09%	-4.9%

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

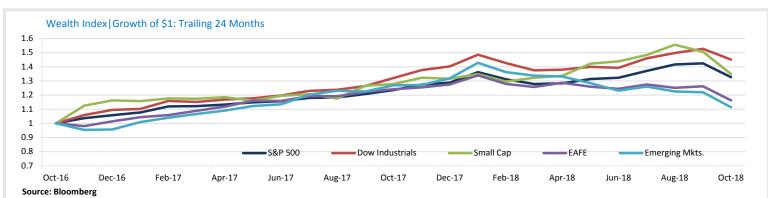
	Last Price	Change	% Chg.	YTD %
Russell Global EM	3,029.78	91.92	3.13%	-16.8%
10-Year US Treas.	3.21	14 bps	NM	NM
Bloomberg Cmdts. Idx.	83.88	-1.11	-1.31%	-4.9%
Gold	\$1,232.93	-\$0.31	-0.03%	-5.3%
Crude Oil	\$62.91	-\$4.68	-6.92%	8.3%
Dollar Index	96.46	0.11	0.11%	4.7%
VIX Index	19.51	-4.58	-18.96%	77.4%

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		One Week	(YTD	
	Value		Growth	Value		Growth
L	2.81%	2.04%	1.35%	-1.73%	2.93%	6.92%
	3.25%	4.08%	5.32%	-4.91%	-1.47%	3.08%
S	3.62%	4.32%	5.01%	-2.10%	0.81%	3.56%
	Source: B	loomberg				

	% Wgt in S&P 500	Week % Chg.	YTD % Chg
Consumer Discretionary	10.0	4.00%	8.7%
Consumer Staples	7.3	2.39%	3.3%
Energy	5.7	1.71%	6.19
Financials	13.6	4.42%	5.6%
Health Care	15.0	2.13%	8.0%
Industrials	9.4	2.57%	6.6%
Information Technology	20.5	0.97%	9.1%
Materials	2.6	6.14%	-1 0.9%
Real Estate	2.8	1.36%	3.29
Communication Services	10.0	2.26%	9.8%
Utilities	3.0	-0.57%	0.89





The Economy and Markets

A Macro View: October Monthly Recap

The domestic equity markets fell sharply in October amidst high volatility, with big swings day to day, and in some cases, intraday. After leading the way up over the last six months, the growth indices led the way down in the reversal, driven by steep losses in the largest technology names, such as Amazon and Netflix, both down roughly 20%. The pullback in the month appears to be a reassessment of risk and some of the lofty valuations reached by these technology companies. Some of the earnings reports were very strong, some mixed (beating expectations this quarter but reducing estimates going forward), and some missed entirely, but all were dragged down in the final two weeks of the month. It is still unclear whether this is simply a reaction to stretched valuations, with the pullback providing a new entry point for investors and more modest but positive price targets for growthier companies, or the beginning of a more significant shift, whereby investors put more emphasis on the safety of companies with low price/earnings (P/E) and price/book (P/B) ratios and higher dividends.

Large caps, as represented by the Russell 1000 Index, were down 7.1% and represented the best return for the month. The Russell 2000 Index was down 10.9%, as smaller company fundamentals, like earnings growth, have failed to keep pace with their larger cap counterparts for some time and have raised investor concern. Smaller company leverage also is at an all-time high, with much of it in floating rate rather than fixed rate debt during an extended period of rising interest rates. As noted, the value versions of the indices outperformed in October, down 2.0%-2.5% less than the core indices. The Bloomberg Commodity Index as a whole was down 2.2%, and the Dow Jones U.S. Select REIT Index dropped 2.6% for the month.

The international equity markets sold off during October, as a variety of economic news released during the month pointed to a broader economic slowdown outside of the US. The European Union (EU) reported positive but slowing growth during the third quarter at 0.6%, decelerating from the 1.8% rate in the second quarter and well behind the US, whose economy expanded at a 3.5% rate. This marked the weakest reading in the EU since 2013, when the continent was in the grip of a banking crisis. Uncertainty around trade policy between China and the US seemed to have a knock-on effect in the eurozone, as exports slowed significantly during the first eight months of the year. The US dollar continued to appreciate during the month, but its effect on non-US equities was muted relative to the prior nine months of the year. In a reversal, dollar strength caused more problems in developed markets than in emerging markets. European markets were down 7.6%, led by Italy, which declined 9.4% amidst its budget impasse struggles with the ECB. The UK and Spain, among the best performers in the region, were down just 6.8%. Japan was slightly worse, down 8.5%, whereas the remainder of Asia was down nearly 11%.

Emerging markets equities also fell, slumping 8.7% for the month as a whole, but with very different results by region. China reported its weakest quarter of economic growth since 2009: 6.5%, down from 6.8% during the first half of the year. The economic deceleration was caused by several factors, including weakness in industrial production and faltering retail sales, and led to the Chinese equity market dropping nearly 11.5%. But optimism around Brazil's presidential election led to a massive rebound in the equity markets, which were up 17.8% in October and 3.4% for the year.

Domestic fixed income markets posted losses in all but the shortest maturities in October, as interest rates rose and spreads widened in every segment of the market. Yields on short- and intermediate-term Treasurys ended the month three to six basis points higher, but were nearly 15 basis points higher early in the month. The real shift in the yield curve came in the long end, as the yield on the 30-year Treasury Bond ended the month 15 basis points higher, slightly below the high for the month. Asset backed spreads, including agency MBS and CMBS, widened by roughly six basis points, and corporate credit spreads widened by more than ten basis points. The widening in credit spreads was driven by investors' risk appetite, rising rates, and falling equity prices, which tend to make investors more conservative, rather than any significant change in economic fundamentals or supply/demand technicals. US economic data continued to show enough strength to keep the Federal Reserve (the Fed) on its current path for another rate hike in December. The Aggregate Index was down 79 basis points in October, led by Treasurys (48 basis points) and agency MBS (63 basis points). Investment grade corporate bonds declined 1.5%, and noninvestment grade bonds were down 1.6%. Short-maturity indices (those with three-year-or-shorter maximum maturities), posted gains between ten and 20 basis points for the month. Bank loans, with their floating interest rates, dodged the worst of rate hikes for the month, but widening credit spreads left the S&P/LSTA Leveraged Loan Index down three basis points.

Short- and intermediate-term municipal yields and spreads also increased during the month, but at a slightly quicker pace than Treasurys with similar maturities. The ten-year muni-to-Treasury ratio climbed to 88%, the cheapest level in six months. Retail municipal bond funds have had outflows every week this month, totaling well above \$2 billion. However, the outflows have been concentrated in long maturity and high yield funds, and demand is still strong, particularly for larger, well-known municipalities, as credit fundamentals remain solid for the market as a whole. October is on pace to be the top issuance month of the year so far at just under \$40 billion, but year-to-date issuance is still off 10%-15% from the same period last year. The broad municipal index was down 45 basis points in October, whereas the intermediate (1-15 year) index was down 28 basis points. Like its taxable counterpart, the 1-3 year index was up a modest eight basis points. In addition to closely watching the Fed, the municipal markets are paying close attention to the upcoming midterm elections. Although the consensus today is that the Democrats will take control of the House and Republicans will retain control of the Senate, a significantly different outcome could affect the municipal market.

The Economy and Markets

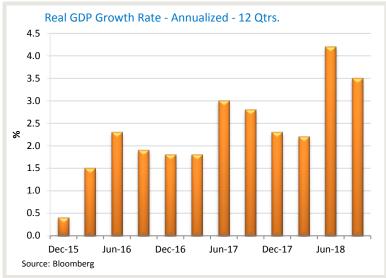
Major developed markets sovereign bonds also were down in October, with the Global Treasury ex-US Index down slightly more than 1.0%. Credit spreads widened in most markets as well, resulting in the Bloomberg Barclays Global Aggregate ex-USD Index falling 1.4% on an unhedged basis. European high yield bonds also fell, declining by 1.3%. Developed markets currencies have faltered as US interest rates have risen, with the Japanese yen (0.5%) the only positive performer. The euro (-2.2%) and the British pound (-2.5%) were down through October 31. After recouping some of their year-to-date losses in September, emerging markets bonds posted negative returns in October, as the US dollar strengthened relative to a basket of major trading partners' currencies. Both government and corporate debt are down, though government debt's 1.68% decline is greater than corporates' 0.33%. High yield government and corporate bonds also have outperformed their investment grade counterparts. After being buffeted by crises, the Argentinian peso (12.5%), Turkish lira (10.6%), and Brazilian real (9.5) have rebounded to be October's best-performing currencies, though they are all significantly weaker relative to the USD than at the start of the year.

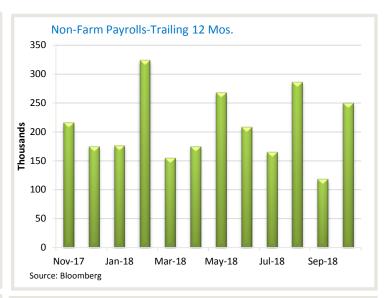
Nathan Behan, CFA, CAIA SVP, Investment Research

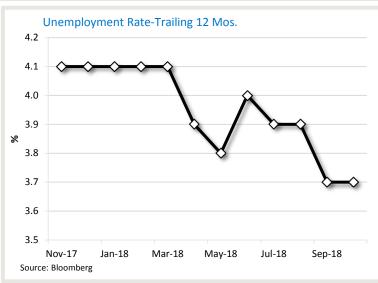
¹ Unless otherwise noted, returns are for the appropriate MSCI Indices in US dollar terms.

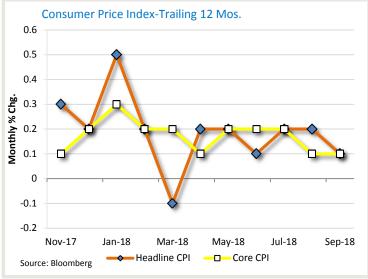
² Unless otherwise noted, returns are for the appropriate Bloomberg Barclays indices.

Economic Data













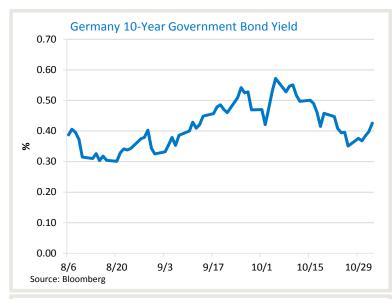
Eurozone

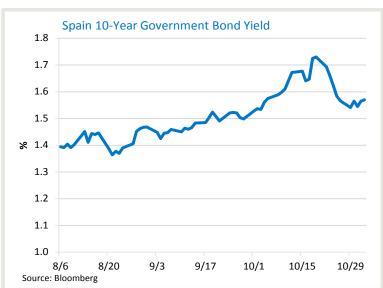
SELECTED EUROPEAN SOVEREIGN YIELD PERFORMANCE

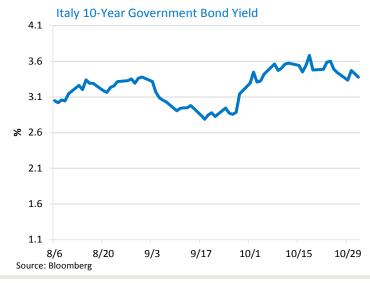
	Last	Change	% Chg.	YTD %
Germany 10-Yr. Govt.	0.43	-7 bps	NM	NM
Greece 10-Yr. Govt.	4.27	0 bps	NM	NM
Italy 10-Yr. Govt.	3.32	10 bps	NM	NM
Spain 10-Yr. Govt.	1.57	0 bps	NM	NM
Belgium 10-Yr. Govt.	0.81	-4 bps	NM	NM

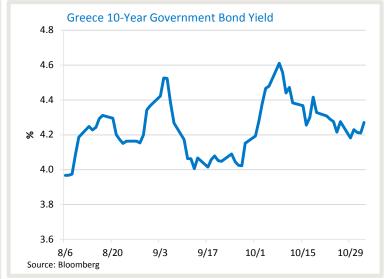
	Last	Change	% Chg.	YTD %
France 10-Yr. Govt.	0.78	-4 bps	NM	NM
Ireland 10-Yr. Govt.	0.99	-5 bps	NM	NM
Portugal 10-Yr. Govt.	1.88	2 bps	NM	NM
Netherlands 10-Yr. Govt.	0.54	-5 bps	NM	NM
U.K. 10-Yr. Govt.	1.49	-10 bps	NM	NM

Source: Bloomberg Basis points (bps)









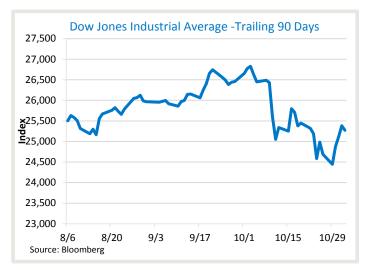
Equities

WORLD MARKET PERFORMANCE

Last	Change	% Chg.	YTD %	
2,723.06	64.37	2.42%	1.85%	
25,270.83	582.52	2.36%	2.23%	
7,357.00	189.78	2.65%	6.57%	
2,037.98	61.18	3.09%	-4.9%	
3,029.78	91.92	3.13%	-16.8%	
15,119.28	231.02	1.55%	-6.72%	
45,446.83	-356.50	-0.78%	-7.92%	
88,419.06	2699.18	3.15%	15.73%	
364.08	11.74	3.33%	-6.45%	
7,094.12	154.56	2.23%	-7.72%	
8,993.00	262.60	3.01%	-10.46%	
	2,723.06 25,270.83 7,357.00 2,037.98 3,029.78 15,119.28 45,446.83 88,419.06 364.08 7,094.12	2,723.06 64.37 25,270.83 582.52 7,357.00 189.78 2,037.98 61.18 3,029.78 91.92 15,119.28 231.02 45,446.83 -356.50 88,419.06 2699.18 364.08 11.74 7,094.12 154.56	2,723.06 64.37 2.42% 25,270.83 582.52 2.36% 7,357.00 189.78 2.65% 2,037.98 61.18 3.09% 3,029.78 91.92 3.13% 15,119.28 231.02 1.55% 45,446.83 -356.50 -0.78% 88,419.06 2699.18 3.15% 364.08 11.74 3.33% 7,094.12 154.56 2.23%	

	Last	Change	% Chg.	YTD %
Swiss Market Index	8,992.30	326.50	3.77%	-4.15%
CAC 40 Index (France)	5,102.13	134.76	2.71%	-3.96%
DAX Index (Germany)	11,518.99	318.37	2.84%	-10.83%
Irish Overall Index	6,224.07	245.95	4.11%	-11.57%
Nikkei 225	22,243.66	1059.06	5.00%	-2.29%
Hang Seng Index	26,486.35	1768.72	7.16%	-11.47%
Shanghai Composite	2,676.48	77.63	2.99%	-19.07%
Kospi Index (S. Korea)	2,096.00	68.85	3.40%	-15.06%
Taiwan Taiex Index	9,906.59	417.41	4.40%	-6.92%
Tel Aviv 25 Index	1,611.43	43.16	2.75%	6.73%
MOEX Index (Russia)	2,377.95	84.73	3.69%	12.71%

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









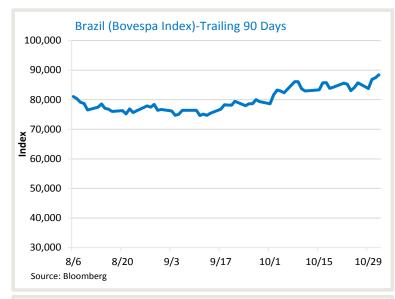
Equities – Emerging and Frontier Markets

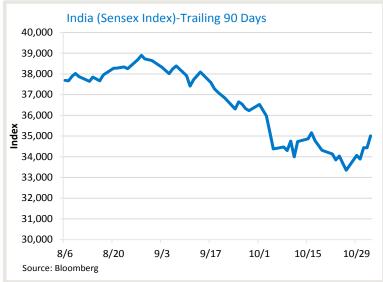
EMERGING AND FRONTIER MARKET PERFORMANCE

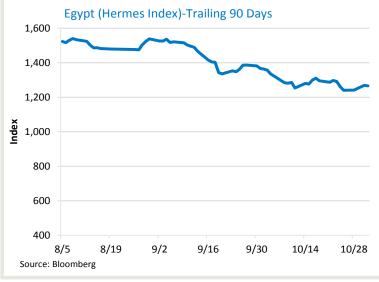
	Last	Change	% Chg.	YTD %
Mexico IPC	45,446.83	-356.50	-0.8%	-7.9%
Brazil (Bovespa Index)	88,419.06	2699.18	3.1%	15.7%
MOEX Index (Russia)	2,377.95	84.73	3.7%	12.7%
Czech Republic (Prague)	1,067.73	36.10	3.5%	-1.0%
Turkey (Istanbul)	94,123.02	3581.49	4.0%	-18.4%
Egypt (Hermes Index)	1,266.29	25.74	2.1%	-11.9%
Kenya (Nairobi 20 Index)	2,831.10	10.55	0.4%	-23.7%
Saudi Arabia (TASI Index)	7,879.37	43.82	0.6%	9.0%
Lebanon (Beirut BLOM Index)	979.41	-2.02	-0.2%	-14.7%
Palestine	527.19	0.52	0.1%	-8.2%

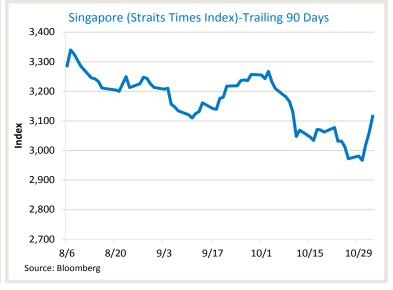
	Last	Change	% Chg.	YTD %
Hang Seng Index	26,486.35	1768.72	7.2%	-11.5%
India (Sensex 30)	35,011.65	1662.34	5.0%	2.8%
Malaysia (KLCI Index)	1,713.87	30.81	1.8%	-4.6%
Singapore (Straits Times Index)	3,116.39	144.37	4.9%	-8.4%
Thailand (SET Index)	1,681.84	52.88	3.2%	-4.1%
Indonesia (Jakarta)	5,906.29	121.37	2.1%	-7.1%
Pakistan (Karachi KSE 100)	42,004.09	1447.64	3.6%	3.8%
Vietnam (Ho Chi Minh)	924.86	24.04	2.7%	-6.0%
Sri Lanka (Colombo)	6,092.21	260.25	4.5%	-4.3%
Cambodia (Laos)	838.97	9.02	1.1%	-16.0%

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









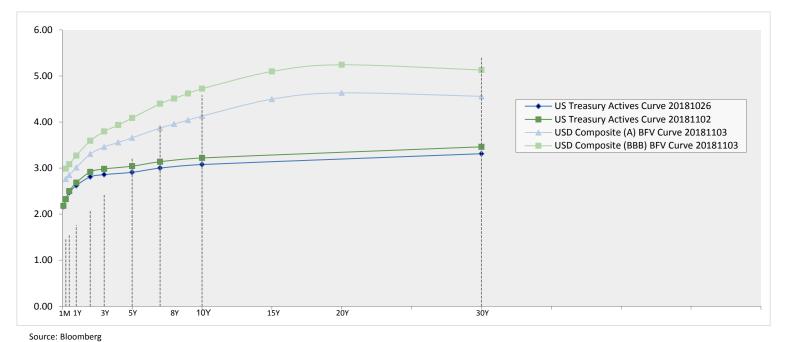
Interest Rates

SELECTED INTEREST RATES

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	Last	Change	% Chg.	YTD %
2-Yr. U.S. Treasury	2.91%	-2 bps	NM	NM
5-Yr. U.S. Treasury	3.04%	13 bps	NM	NM
10-Yr. U.S. Treasury	3.21%	14 bps	NM	NM
30-Yr. U.S. Treasury	3.45%	14 bps	NM	NM
German 10-Yr. Govt.	0.43%	-7 bps	NM	NM
France 10-Yr.	0.78%	-4 bps	NM	NM
Italy 10-Yr.	3.32%	10 bps	NM	NM
Fed 5-Yr Fwd BE Inf.	2.06%	-6 bps	NM	NM

	Last	Change	% Chg.	YTD %
Prime Rate	5.25%	0.00	NM	NM
Fed Funds Rate	2.25%	0.00	NM	NM
Discount Rate	2.75%	0.00	NM	NM
LIBOR (3 Mo.)	2.58%	6 bps	NM	NM
Bond Buyer 40 Muni	4.53%	16 bps	NM	NM
Bond Buyer 40 G.O.	4.33%	NA	NM	NM
Bond Buyer 40 Rev.	4.82%	NA	NM	NM

Source: Bloomberg







Currencies

SELECTED CURRENCY PERFORMANCE

	Last	Change	% Chg.	YTD %
Dollar Index	96.46	0.108	0.11%	4.71%
Euro	1.14	-0.001	-0.07%	-5.08%
Japanese Yen	113.22	1.290	-1.14%	-0.45%
British Pound	1.30	0.014	1.11%	-4.02%
Canadian Dollar	1.31	0.000	0.02%	-4.06%

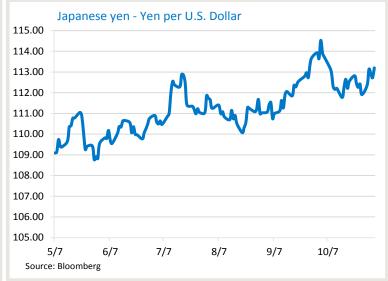
	Last	Change	% Chg.	YTD %
Chinese Yuan	6.89	-0.053	0.77%	-5.57%
Swiss Franc	1.00	0.007	-0.68%	-2.94%
New Zealand Dollar	0.66	0.013	1.96%	-6.34%
Brazilian Real	3.70	0.058	-1.56%	-10.58%
Mexican Peso	20.02	0.654	-3.27%	-1.78%

Source: Bloomberg









Source: Bloomberg; % change is based on price.

Commodities

Source: Bloomberg

SELECTED COMMODITY MARKET PERFORMANCE

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	Last	Change	% Chg.	YTD %
Bloomberg Comm. ldx.	83.88	-1.11	-1.31%	-4.86%
Crude Oil	\$62.95	-\$4.68	-6.92%	8.33%
Natural Gas	\$3.29	\$0.07	2.11%	9.88%
Gasoline (\$/Gal.)	\$2.78	-\$0.05	-1.59%	11.90%
Heating Oil	216.91	-13.56	-5.89%	10.90%
Gold Spot	\$1,233.13	-\$0.31	-0.03%	-5.34%
Silver Spot	\$14.75	\$0.06	0.39%	-12.89%

	Last	Change	% Chg.	YTD %
Platinum Spot	\$868.79	\$36.07	4.33%	-6.41%
Corn	371.25	3.50	0.95%	-3.32%
Wheat	508.75	3.50	0.69%	5.55%
Soybeans	887.75	30.00	3.50%	-9.69%
Sugar	13.44	-0.40	-2.89%	-14.34%
Orange Juice	138.15	0.10	0.07%	-3.59%
Aluminum	1,966.00	-32.00	-1.60%	-13.32%
Copper	6,090.00	-70.00	-1.14%	-15.97%

Crude Oil - Light Crude (\$ per barrel) 90 80 70 60 \$ per barrel 50 40 30 20 10 5/7 7/7 8/7 9/7 10/7







Alternative Investments

SELECTED ALTERNATIVE INVESTMENT INDEX PERFORMANCE

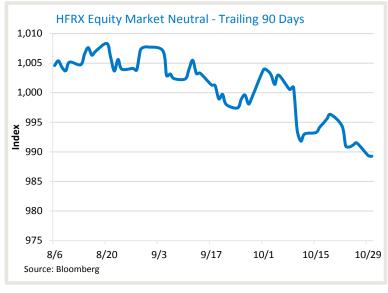
	Last	Change	% Chg.	YTD %
HFRX Global Hedge Fund Index	1220.75	5.55	0.46%	-4.30%
HFRX Equity Market Neutral	992.20	0.71	0.07%	-1.21%
HFRX Equity Hedge Index	1209.58	18.54	1.56%	-4.81%
HFRX Event-Driven Index	1501.96	-4.63	-0.31%	-9.83%
HFRX Absolute Return Index	1072.71	1.66	0.15%	0.89%

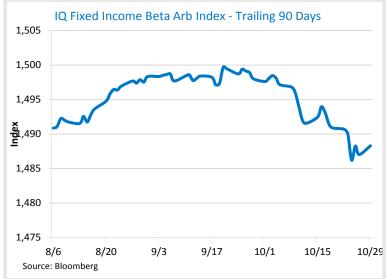
	Last	Change	% Chg.	YTD %
HFRX Distressed Index	1031.84	-1.08	-0.10%	-6.76%
HFRX Merger Arbitrage Index	1806.93	7.15	0.40%	-2.49%
HFRX Convertible Arbitrage Index	800.60	2.87	0.36%	0.55%
HFRX Macro CTA Index	1119.63	2.22	0.20%	-3.80%
IQ Fixed Income Beta Arb Index	1489.57	2.54	0.17%	1.30%

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

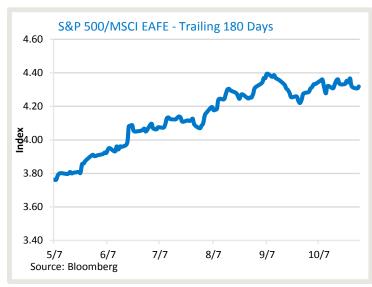


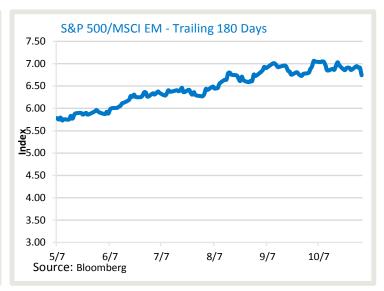


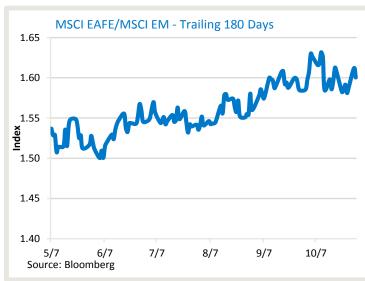




Portfolio Construction



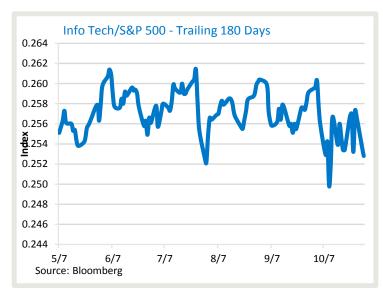


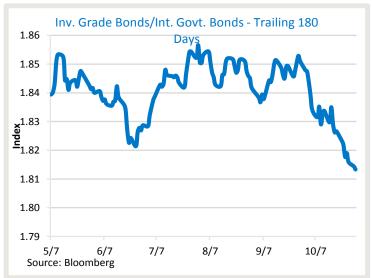


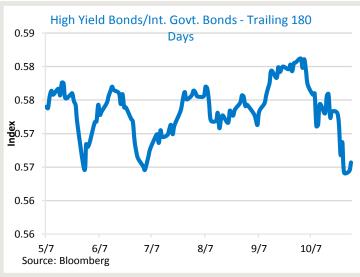


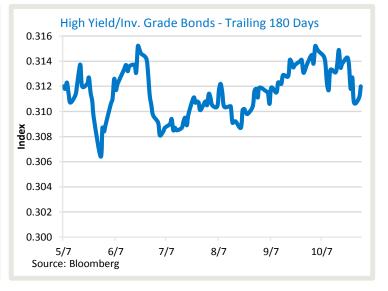


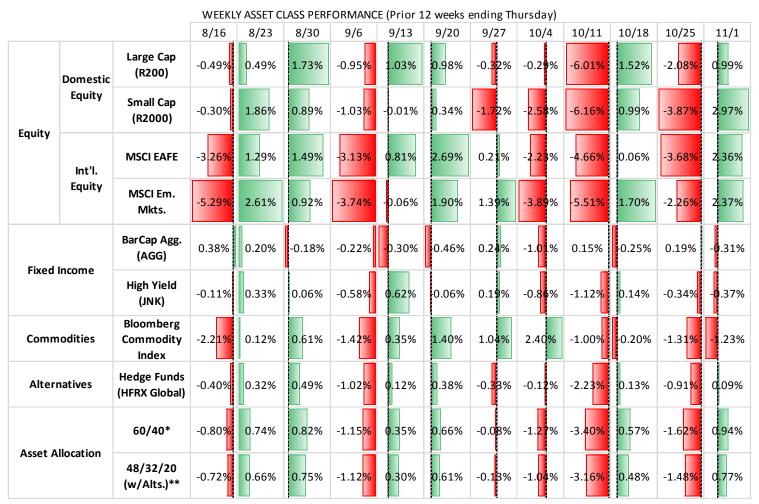
Portfolio Construction (continued)











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	1.00	0.98	1.04	1.00	1.07	1.08	1.05	1.11	1.18	1.05	0.93	1.02	1.14	1.21
Large Cap Growth	1.00	1.00	0.98	1.04	1.00	1.07	1.08	1.04	1.10	1.18	1.05	0.92	1.02	1.14	1.21
Large Cap Value	1.02	1.02	1.00	1.06	1.02	1.09	1.10	1.07	1.13	1.21	1.08	0.95	1.04	1.17	1.24
Mid Cap Core	0.96	0.96	0.94	1.00	0.97	1.03	1.04	1.01	1.07	1.14	1.01	0.89	0.98	1.10	1.16
Mid Cap Growth	1.00	1.00	0.98	1.04	1.00	1.07	1.08	1.04	1.10	1.18	1.05	0.92	1.02	1.14	1.21
Mid Cap Value	0.94	0.94	0.92	0.97	0.94	1.00	1.01	0.98	1.04	1.11	0.99	0.87	0.95	1.07	1.13
Small Cap Core	0.93	0.93	0.91	0.96	0.93	0.99	1.00	0.97	1.02	1.09	0.98	0.86	0.94	1.06	1.12
Small Cap Growth	0.96	0.96	0.94	0.99	0.96	1.02	1.03	1.00	1.06	1.13	1.01	0.89	0.97	1.09	1.16
Small Cap Value	0.90	0.91	0.88	0.94	0.91	0.97	0.98	0.95	1.00	1.07	0.95	0.84	0.92	1.03	1.09
Int'l. Developed	0.85	0.85	0.83	0.88	0.85	0.90	0.91	0.89	0.94	1.00	0.89	0.78	0.86	0.97	1.02
Emerging Markets	0.95	0.95	0.93	0.99	0.95	1.01	1.02	0.99	1.05	1.12	1.00	0.88	0.97	1.08	1.15
REITs	1.08	1.08	1.06	1.12	1.08	1.15	1.17	1.13	1.19	1.28	1.14	1.00	1.10	1.23	1.31
Commodities	0.98	0.98	0.96	1.02	0.98	1.05	1.06	1.03	1.09	1.16	1.04	0.91	1.00	1.12	1.19
Int. Bond	0.88	0.88	0.86	0.91	0.88	0.93	0.95	0.92	0.97	1.03	0.92	0.81	0.89	1.00	1.06
High Yield	0.83	0.83	0.81	0.86	0.83	0.88	0.89	0.86	0.91	0.98	0.87	0.77	0.84	0.94	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 & 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 Purchasing Managers' Index (PMI) is an indicator of the economic health of the manufacturing sector. The PMI is based on five major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment. Brexit is a commonly used term for the United Kingdom's withdrawal from the European Union. The Kansas City Fed Manufacturing Survey monitors manufacturing plants selected according to geographic distribution, industry mix and size in the Tenth Federal Reserve District. West Texas Intermediate (WTI), also known as Texas light sweet, is a grade of crude oil used as a benchmark in oil pricing. Risk Premium is the return in excess of the risk-free rate of return an investment is expected to yield. LIBOR or ICE LIBOR (previously BBA LIBOR) is a benchmark rate, which some of the world's leading banks charge each other for short-term loans. It stands for Intercontinental Exchange London Interbank Offered Rate and serves as the first step to calculating interest rates on various loans throughout the world.

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 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, assetbacked, 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 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 Growth 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 NY Empire State Manufacturing Index is based on the monthly survey of manufacturers in New York State - known as the Empire State Manufacturing Survey - conducted by the Federal Reserve Bank of New York. The S&P The Dow Jones Wilshire U.S. REIT Index tracks the performance of publicly traded REITs and REIT-like securities and is designed to serve as a proxy for direct real estate investment, in part by excluding companies whose performance may be driven by factors other than the value of real estate. The Russell Top 200 Index measures the performance of the 200 largest companies in the Russell 1000 Index, with a weighted average market capitalization of \$186 billion. The Barclays 1-3 Year US Treasury Bond Index measures public US Treasury obligations with remaining maturities of one to three years. The S&P LSTA Leveraged Loan Index is an unmanaged capitalization-weighted syndicated loan index based upon market weightings, spreads and interest payments. It covers the US market back to 1997 and currently calculates on a daily basis. The NFIB Small Business Optimism Index is compiled from a survey that is conducted each month by the National Federation of Independent Business (NFIB) of its members

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