MARKETS PLAGUED BY INDECISION IN THE FACE OF FED REVERSAL AND PLUMMETING OIL PRICES

- After experiencing in October its largest decline since 2011, the S&P 500 finished November 2% higher, due in no small part to a month-end rally in response to comments made by the Fed chairman.
- Markets outside the U.S. were also positive, with EM stocks rising 4.5%, their best monthly return since January.
- The S&P 500's positive November return came without any help from its largest sector (IT), which was down 2.1%. Health-care was the top performing sector (6.8%) followed by real estate (5.3%), while lower oil prices made energy the worst performing (-2.2%).
- Volatility was not quite as high as it was in October, but still well above its five-year average.
- The market's average calendar-month swing, measured as the sum of the intra-month drawup and drawdown, is as high YTD as it's been since 2011. The YTD average for 2018 is 8.4%, more than double the 3.5% for 2017.
- Falling interest rates helped to offset widening credit spreads, giving the bond market its only positive monthly return out of the last three.
- The correlation of the S&P 500 with the bond market and with ex-US segments of the equity market trended higher in November.

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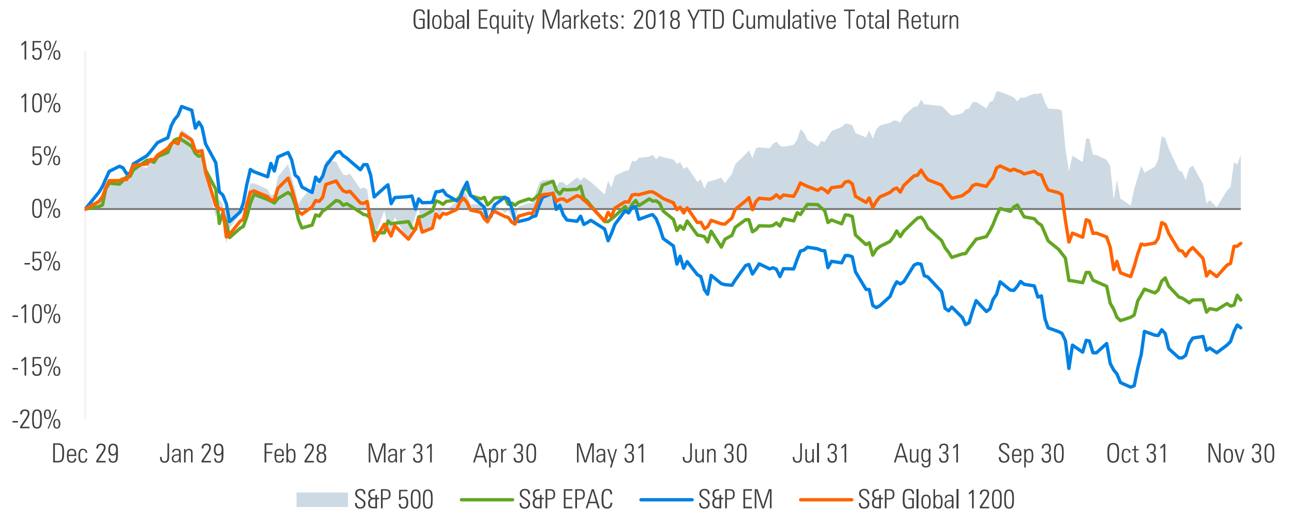
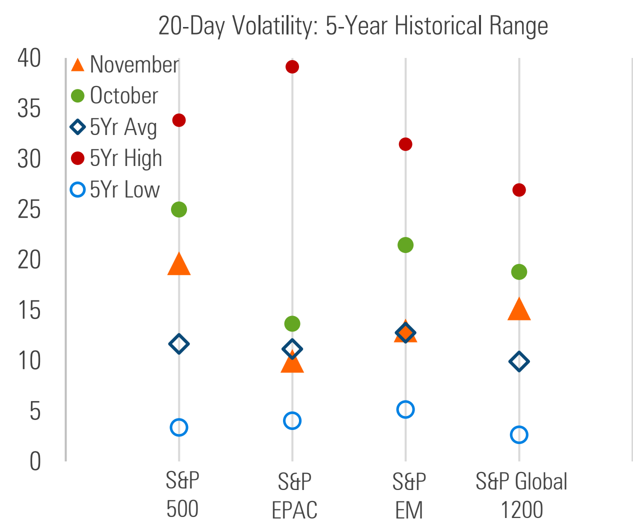
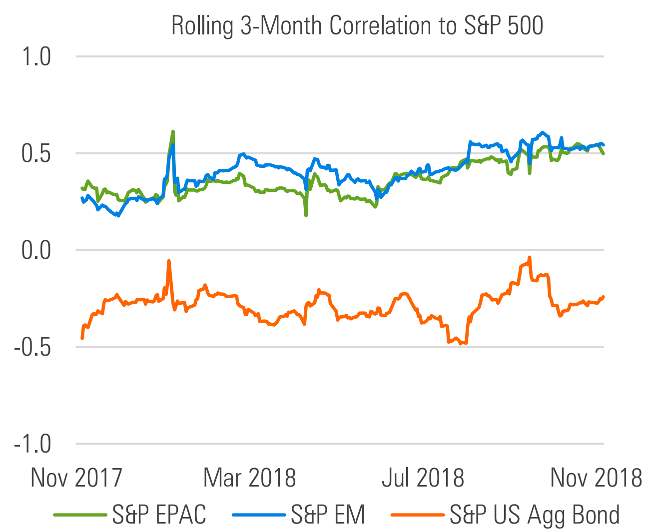




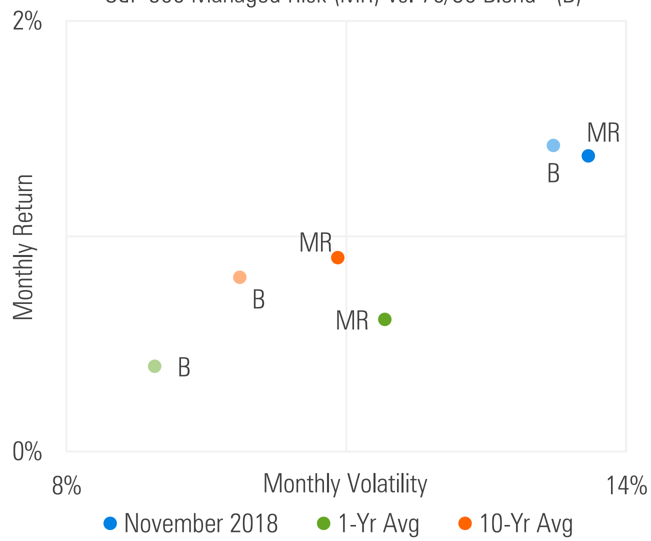


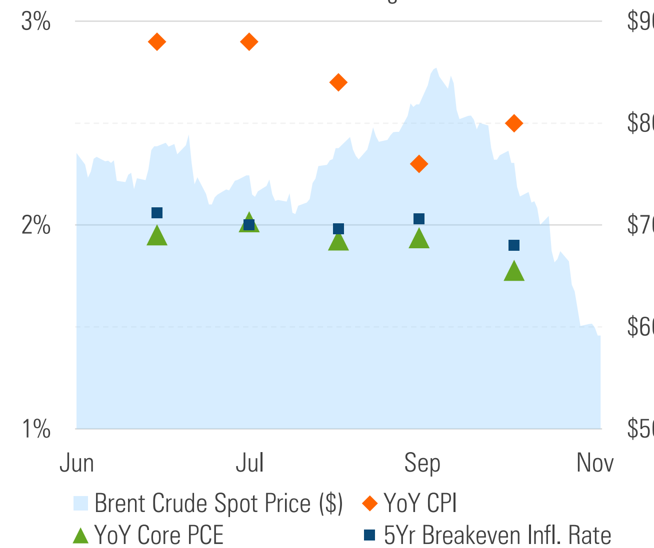
MANAGED RISK INVESTING

- The volatility of the S&P 500 remained above the 18% volatility threshold of the S&P 500 Managed Risk Index. As a result, the index maintained an average equity exposure of 70% for the month.
- By virtue of its hedging, the Managed Risk Index underperformed the S&P 500 by 66 basis points, but experienced less volatility and drawdown.
- The positive return of the US aggregate bond market was additive to a 70/30 blend*, helping it to marginally outperform the Managed Risk Index for the month of November.
- Over the last 10 years, the Managed Risk Index has exhibited one additional percentage point of average monthly volatility over a 70/30 blend*, while generating an average excess monthly return of 8 bps, equal to an annualized excess return of 1.13% per year.

- The price of Brent crude oil fell 22.3%, its largest monthly decline since October 2008.
- Year-over-year CPI ticked higher to 2.5%, while YoY PCE and breakeven inflation both edged lower, perhaps contributing to the Fed's sharp reversal in its forward guidance.

*Measured by the S&P 500 and the S&P U.S. Agg Bond Index



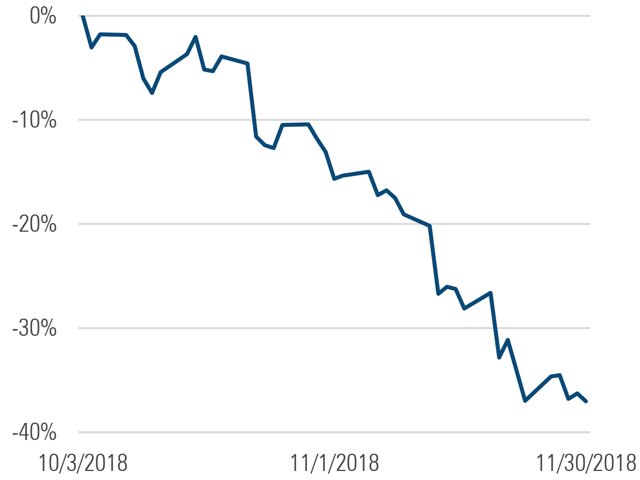


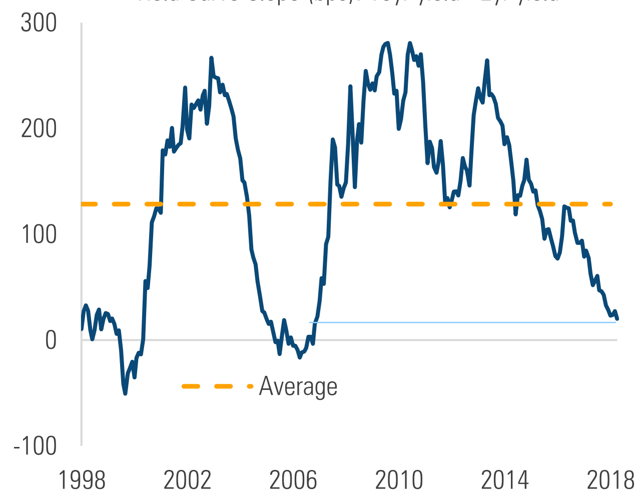
Total Returns as of November 30, 2018

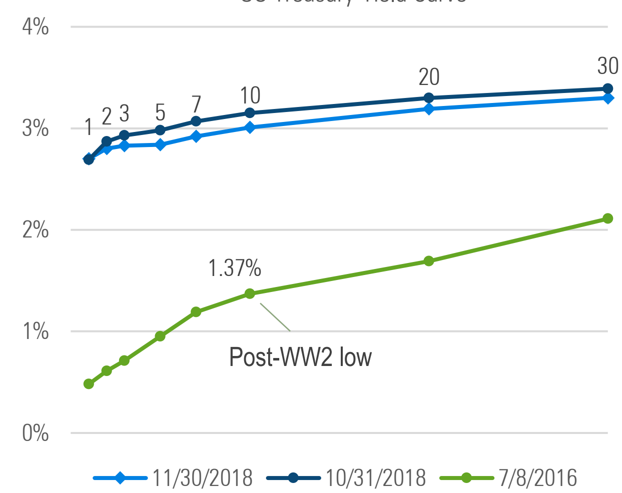
	S&P 500	S&P 500 MR	S&P 400	S&P 600	S&P EPAC	S&P EM	S&P Global 1200	S&P US AGG	Crude Oil (Brent)	US Dollar	70/30 Stock/Bond
1 Month	2.0%	1.4%	3.1%	1.5%	0.1%	4.5%	1.3%	0.5%	-22.3%	-0.2%	1.4%
3 Months	-4.4%	-4.7%	-7.7%	-12.0%	-6.9%	-5.2%	-5.4%	-0.6%	-23.7%	2.2%	-3.5%
6 Months	3.0%	2.7%	-2.7%	-3.8%	-7.7%	-9.2%	-1.5%	-0.1%	-22.7%	3.2%	1.5%
1 Year	6.3%	4.3%	0.5%	3.5%	-7.2%	-8.3%	0.5%	-1.0%	-6.5%	3.9%	2.9%
1M Volatility	19.6%	14.2%	17.3%	19.2%	10.0%	13.0%	15.2%	1.7%	46.5%	5.6%	13.2%

THE YIELD CURVE FINISHED NOVEMBER 20 BPS AWAY FROM INVERSION

- From its 2018 peak on October 3, the price of WTI crude oil has fallen 37%. YTD, US crude oil production has increased 20%.
- As the price of oil has declined, so too have projections for the Fed Funds rate. Assuming a rate hike before the end of this year, the futures market now predicts just one rate hike for all of 2019.
- In less than two months, the Fed chairman changed his forward guidance on rates from being "a long way from neutral…probably," on October 3, to "just below neutral" on November 28.
- The question was raised here in late October whether or not the Fed had moved too far too fast. The recent reversal suggests that maybe the Fed has gone too far, and that it could afford to slow the pace of rate hikes.
- Perhaps in response to Fed comments, both the 2-yr and 10-yr Treasury yields fell, but the 10-yr fell more, pushing the difference between the two to its most narrow point since mid-2007.
- From their July 2016 low, rates for tenors of 10 years and less have more than doubled. While still low by historical standards, an increase of such magnitude nevertheless has inevitable implications for the broader economy and, by extension, the capital markets. Perhaps also inevitable is higher volatility as markets attempt to understand and price out the implications.







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