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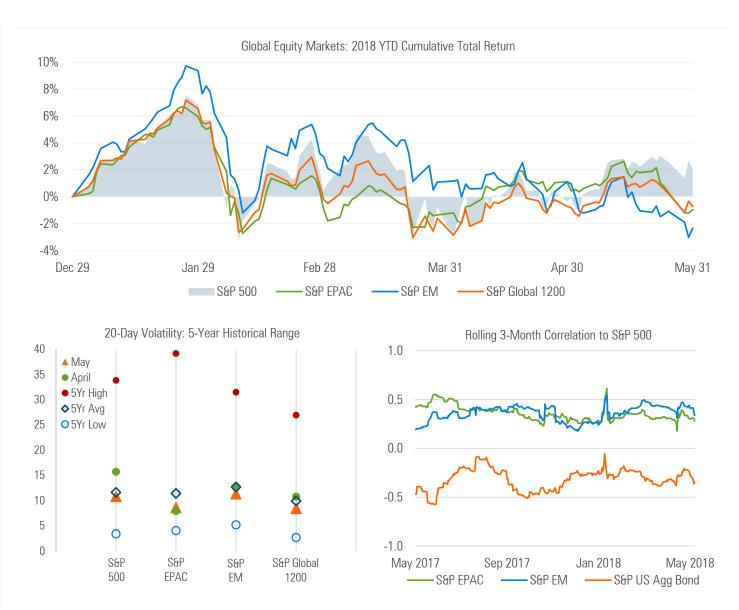
Milliman Financial Risk Management

Market Commentary: May 2018

BUYERS IN MAY MADE SOME HAY (WHILE THE SUN SHINED)

- Buyers outweighed sellers in May as the global equity market edged out a positive return.
- US equities pushed firmly higher, led by small cap stocks, while ex-US equities moved sharply lower, due in no small part to a strengthening US dollar.
- May marks the fourth consecutive negative monthly return for emerging market stocks as investors sort out the implications of trade tariffs, a stronger US dollar and rising global interest rates.
- Developed market interest rates retreated modestly in May, but remain well above their levels from a year ago.
- Global equity market volatility in May was lower than it was in April and was also below its fiveyear average.
- The VIX spent much of May in its 2017 range, rising briefly near month-end in response to political uncertainty in Italy that carried broader implications for spillover into the EU.
- The correlation of the S&P 500 to global ex-US equities and to the broad US bond market declined in May, increasing their value with respect to their diversification benefit.

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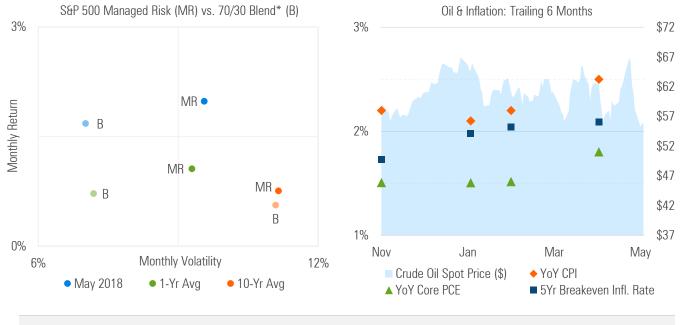
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Market Commentary: May 2018

MANAGED RISK INVESTING

- As markets grew calmer from April into May, the <u>S&P 500 Managed Risk Index</u>, which has an 18% volatility threshold and no fixed allocation to bonds, gradually reduced its hedge position.
- From its 81% equity allocation at the end of April, the Index gradually increased its exposure to equity as S&P 500 volatility ebbed gently lower, finishing the month at 99% equity.
- In both May and over the last 12 months it outperformed a 70/30 blend* by 30 bps, albeit with higher volatility.
- Over the last 10 years, the Managed Risk Index has exhibited virtually the same average monthly volatility as a 70/30 blend*, while generating an average excess monthly return of 20 bps.
- YoY CPI climbed for the fourth consecutive month (now at 2.5%), while the unemployment rate fell below 4% for the first time since December 2000.
- The price of Midland crude oil had its most volatile month since 2016, making a 19% gain in 12 days, only to see it erased over the next five.
- Info Tech was the top-performing sector, led higher by the usual suspects in Apple, Facebook, Microsoft and Alphabet.

*As measured by the S&P 500 Index and the S&P US Aggregate Bond Index.



Total Returns as of May 31, 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	US Dollar
1 Month	2.4%	2.0%	4.1%	6.5%	-2.0%	-3.4%	0.3%	0.5%	-11.1%	2.1%
3 Months	0.2%	-0.7%	4.8%	9.7%	-1.4%	-5.4%	-0.6%	0.4%	-9.1%	3.1%
6 Months	3.2%	1.6%	3.3%	7.6%	0.6%	1.0%	2.0%	-1.0%	-4.0%	0.6%
1 Year	14.4%	12.7%	14.9%	22.7%	8.8%	14.0%	12.4%	-0.3%	16.1%	-2.3%
1M Volatility	10.9%	10.1%	10.6%	11.0%	8.7%	11.4%	8.5%	3.4%	51.4%	4.9%

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Creating transformational improvement in the retirement savings industry.

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Established in 1998, the practice includes professionals operating from three trading platforms around the world (Chicago, London, and Sydney).

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