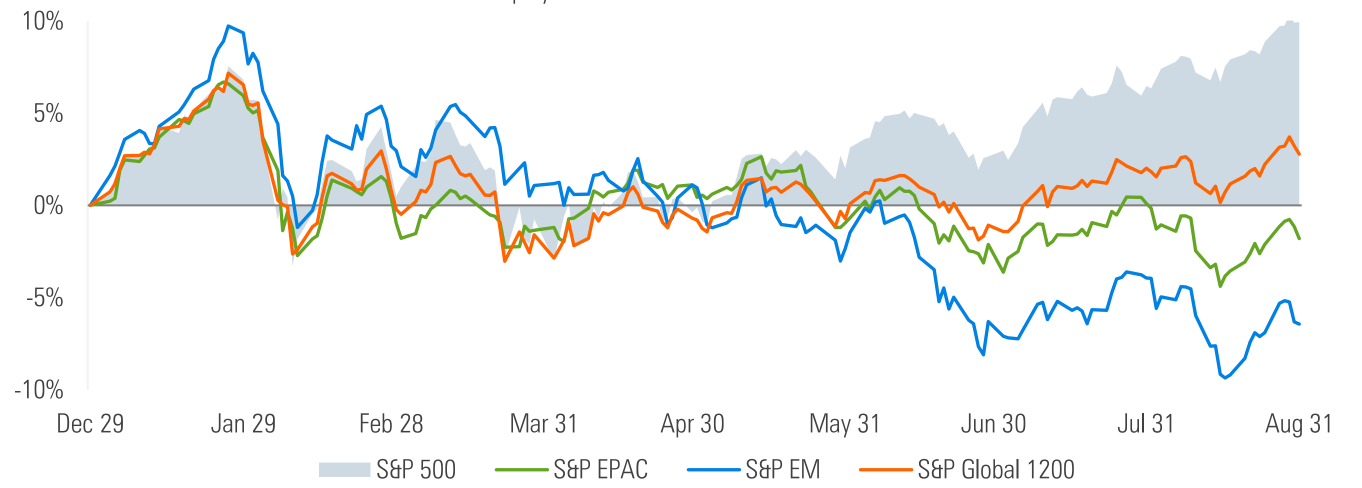
US STOCKS EXTEND LEAD OVER NON-US STOCKS TO WIDEST MARGIN YTD

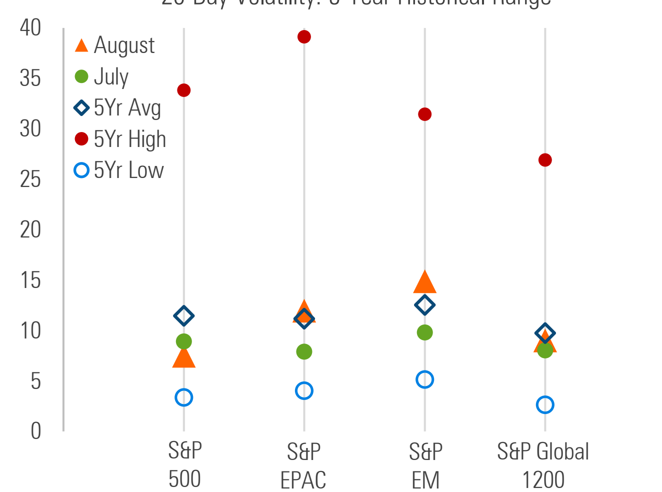
- Down six out of the last seven months, emerging market (EM) stocks extended their slide in August, falling another 2.6%. They now trail US stocks by 16.4% YTD, much of which is attributable to a stronger dollar.
- The S&P 500 notched its fifth consecutive positive monthly return and its 27th out of the last 30.
- From its March 9, 2009 financial crisis low through August, the S&P 500 has:
  - Climbed 329%
  - Increased its nominal 12-month dividend by 90%
  - Generated a total return (with dividend reinvestment) of 423%.
  - Run for 2,389 days without a 20% drawdown (although came close in Oct. 2011)
- Small-cap stocks have moved higher six straight months generating a 20% cumulative return.
- US equity market volatility remained exceptionally low in August while EM volatility broke above its five-year average.
- The correlation of the S&P 500 to global ex-US equities increased again in August, as did its correlation to the U.S. aggregate bond market, amidst falling interest rates.

Joe Becker, FRM
Director – Portfolio Strategist

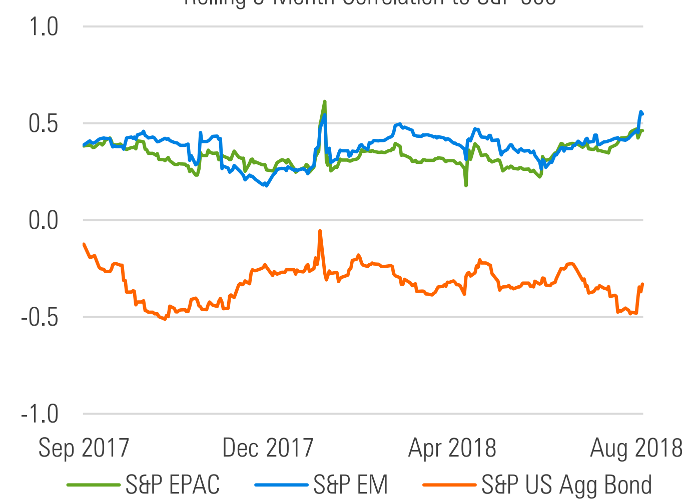
Global Equity Markets: 2018 YTD Cumulative Total Return



20-Day Volatility: 5-Year Historical Range



Rolling 3-Month Correlation to S&P 500



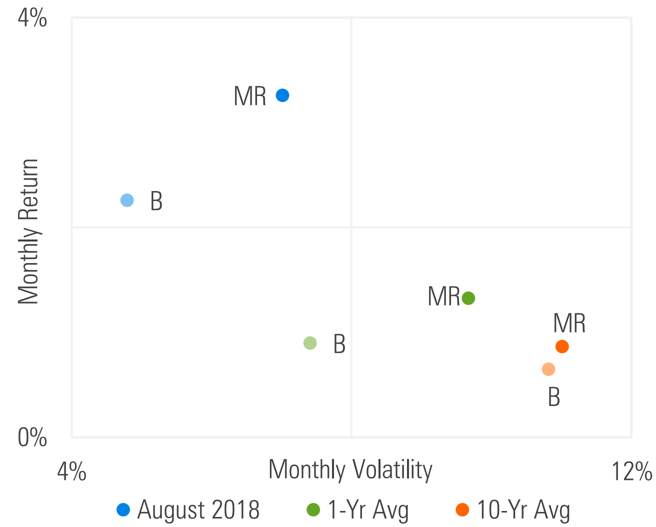
MANAGED RISK INVESTING

- US equity market volatility remained muted in August, touching its lowest point since the first week of January. This left the S&P 500 Managed Risk Index, which has an 18% volatility threshold and no fixed allocation to bonds, at a 100% equity allocation for the entirety of the month.
- In August the Index again outperformed a 70/30 blend* by 100 bps.
- Over the last 10 years, much of which was a bull market for bonds, the Managed Risk Index has exhibited marginally higher average monthly volatility than a 70/30 blend*, while generating an average excess monthly return of 22 bps, equal to an annualized excess return of 2.88% per year.

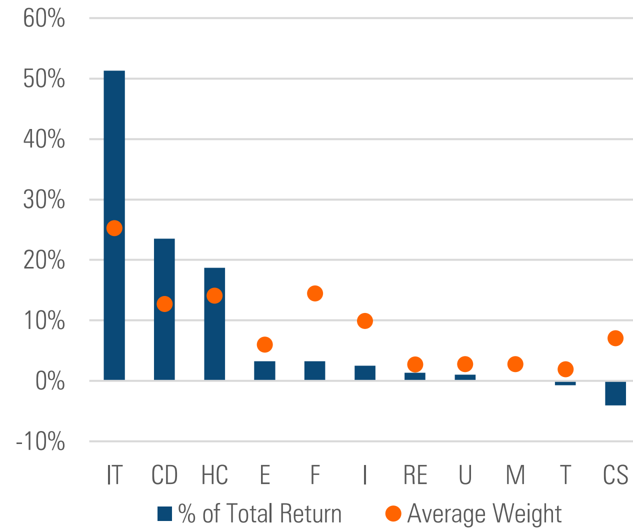
- The technology sector continues to make disproportionate contributions to market returns. In August, while averaging a weight of 25%, it accounted for 55% of the S&P 500's return.
- That brings its YTD contribution to 51% of the S&P 500's 9.9% YTD return.
- Together with consumer discretionary and health care, the three sectors account for 94% of the S&P 500's YTD return.

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

S&P 500 Managed Risk (MR) vs. 70/30 Blend* (B)



Sector Contribution to S&P 500 YTD Return



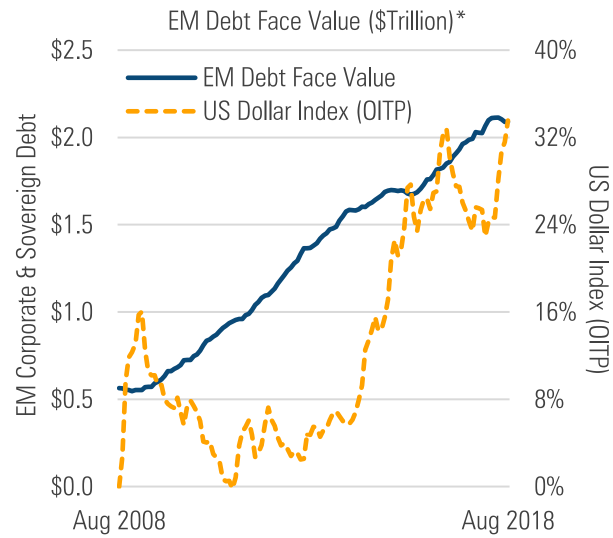
Total Returns as of August 31, 2018

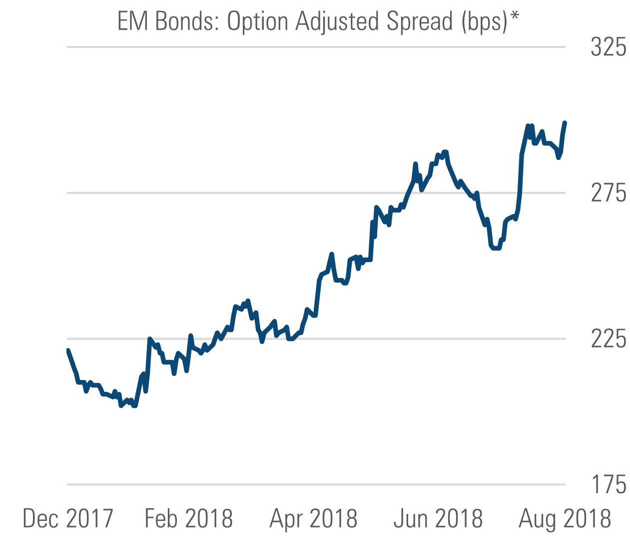
	S&P 500	S&P 500 MR	S&P 400	S&P 600	S&P EPAC	S&P EM	S&P Global 1200	S&P US AGG	Crude Oil (WTI)	US Dollar	70/30 Stock/Bond
1 Month	3.3%	3.3%	3.2%	4.8%	-1.9%	-2.6%	1.0%	0.5%	-2.1%	0.7%	2.3%
3 Months	7.8%	7.7%	5.5%	9.4%	-0.8%	-4.2%	4.1%	0.5%	-6.6%	1.0%	5.2%
6 Months	8.0%	7.0%	10.5%	20.0%	-2.2%	-9.3%	3.5%	0.9%	-15.0%	4.1%	5.2%
1 Year	19.7%	17.8%	20.0%	32.5%	5.1%	0.1%	13.0%	-0.8%	13.0%	2.6%	11.8%
1M Volatility	7.5%	7.5%	8.5%	9.4%	12.0%	14.9%	9.0%	1.6%	70.4%	6.0%	4.8%

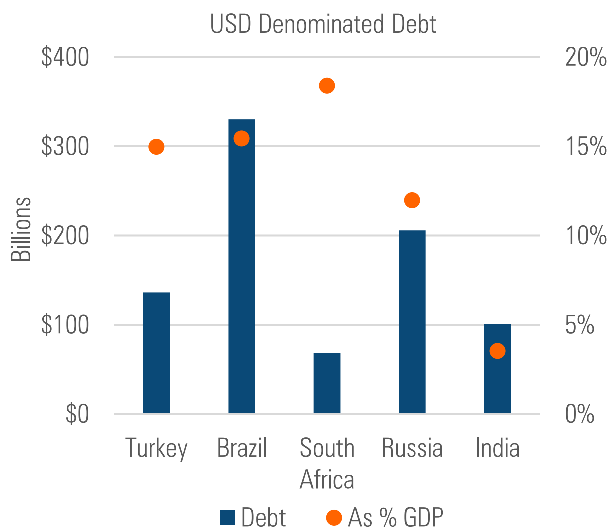
IS EM DEBT AFFECTING EM EQUITY?

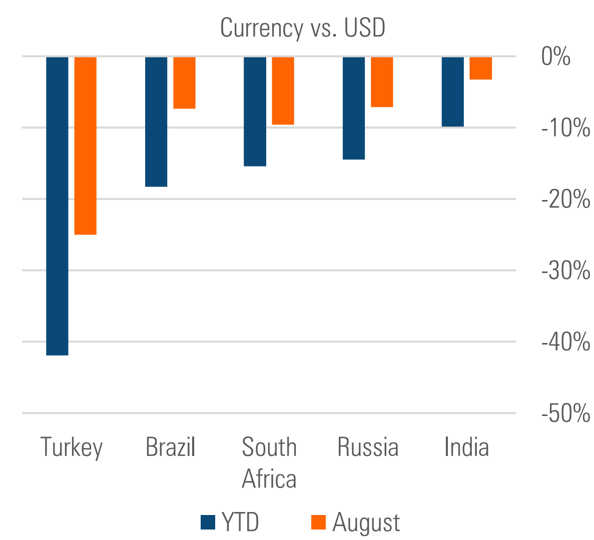
- Over the last 10 years, the amount of outstanding USD denominated bonds (corporate and sovereign) issued out of EM countries is estimated to have grown nearly 300% to more than $2 trillion.
- For much of that period, the US dollar has been appreciating against EM currencies. Since the beginning of 2018, not only has the dollar appreciated almost 9%, but credit spreads on USD-denominated EM bonds have widened from 200 bps to 300 bps, an increase of 50%.*
- Among the EM currencies that have depreciated most in 2018 are Turkey, Brazil, South Africa, Russia and India. These five are also among the largest issuers of USD denominated debt, with an estimated total of more than $800 billion outstanding.
- Given both their respective amounts outstanding of USD bonds and currency depreciations, we estimate that the cost of servicing this debt has increased 27% since the beginning of 2018.
- This increased cost puts pressure on EM issuers, making it increasingly more difficult for them to both service their existing debt, and by extension, tap into the credit markets that have fueled much of their growth in recent years.
- To the extent the USD continues to rise against EM currencies, EM stocks may be expected to both underperform and exhibit increasingly higher volatility relative to US equities.

**As measured by the ICE BAML EM External Sovereign & Corporate Plus Index and the US Dollar Index of Other Important Trading Partners.*









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