MILLIMAN FINANCIAL RISK MANAGEMENT

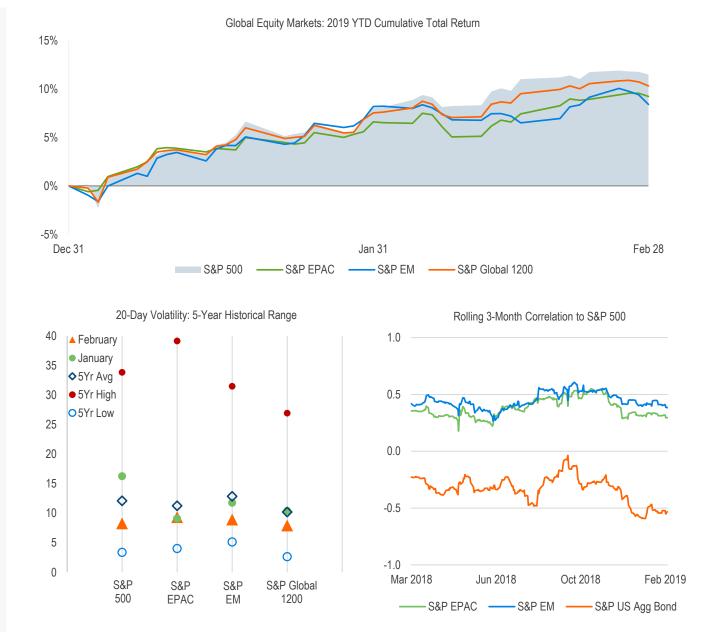
Market Commentary: February 2019

JANUARY'S RALLY EXTENDED INTO FEBRUARY

Fed's dovish tone, progress on U.S./China trade deal and solid earnings propelled stocks higher.

- After its best January in more than 30 years, the S&P 500 rose again in February, completing a full recovery from its 16% December drawdown.
- Whether segmented by size, sector or region, the rest of the global equity market followed suit:
- Mid- and small-cap stocks were both up more than 4% for the month.
- Every sector was higher, with IT leading the way.
- Developed and emerging markets both finished positive.
- Bolstered by dovish Fed comments and rising prospects for a U.S./China trade deal, S&P 500 volatility edged sharply lower for the second month in a row, with February registering less than half of January's volatility and less than a third of December's.
- Stocks were also supported by a continuation of January's solid earnings reports, with 70% of companies reporting in February beating estimates by an average of 10%.
- Notwithstanding its 11% YTD price increase, the S&P 500 finished the month still 5% below its all-time high from September 2018; moreover, at 18.3x earnings, the index is trading at a substantial discount from its January 2018 multiple of 23.
- Tightening credit spreads were not quite sufficient to offset the upward shift in the yield curve, resulting in a small loss for the US aggregate bond market, its first in three months.
- The S&P 500's correlation to developed and emerging markets was little changed during the month, but its correlation with the U.S. aggregate bond market declined significantly, increasing their diversification benefit.

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MANAGED RISK INVESTING

Managed Risk Benchmarks increased their equity exposure again in February.

- Heading into February the volatility of the S&P 500 remained above the 18% volatility threshold of the <u>S&P</u> 500 Managed Risk Index.
- Having begun the month with an equity allocation of 64%, the index steadily increased its equity exposure to 82% by month end as volatility declined.
- Its average exposure of 73% during the month helped it to generate a slightly higher return than a 70/30 Blend* with slightly less volatility.
- After rising 16% in January, the price of brent crude oil climbed again in February to \$67, bringing its YTD price increase to 24%.
- Perhaps counterintuitively, the U.S. dollar also climbed during the month in spite of the release of the Fed's January meeting minutes that confirmed their more dovish stance.
- Measures of inflation remain broadly contained. The 5year breakeven inflation rate rose again in February, but remains below 2%. The most recent reading of yearover-year CPI fell to its lowest level since June 2017, while that of YoY Core PCE remained unchanged.
- As of month end, the fed funds futures market was indicating a 10.6% implied probability of a rate cut by the end of 2019 versus just a 4.3% chance of a hike.
- Since touching its all-time low of 11 bps in December 2018, difference between the yields of the 2-yr and 10-yr Treasury bonds is still low at just 20 bps.
- Perhaps more telling is the 5-yr yield sitting four bps below the 2-yr yield, suggesting that the bond market still views the last rate hike as a mistake and finds the Fed's recent tilt to a more dovish stance to be an insufficient corrective measure.

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



• 10-Yr Ava

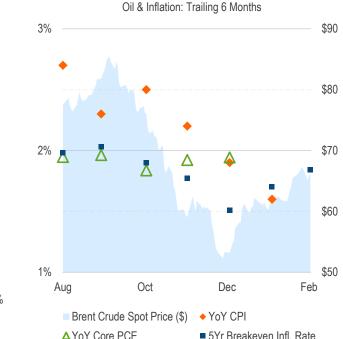
1-Yr Ava

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

3%

MR

February 2019



Total Returns as of February 28, 2019											
	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	3.2%	2.3%	4.2%	4.4%	2.5%	0.2%	2.8%	0.0%	6.7%	0.8%	2.1%
3 Months	1.4%	-0.1%	2.1%	1.5%	3.9%	5.7%	2.6%	2.4%	11.7%	-1.5%	1.5%
6 Months	-3.0%	-4.8%	-5.8%	-10.7%	-3.3%	0.2%	-2.9%	1.8%	-14.8%	0.6%	-2.1%
1 Year	4.7%	1.9%	4.1%	7.2%	-5.4%	-9.1%	0.5%	2.7%	-1.5%	4.8%	3.0%
1M Volatility	8.3%	5.8%	8.9%	11.1%	9.3%	8.9%	7.9%	2.0%	25.3%	4.0%	5.8%

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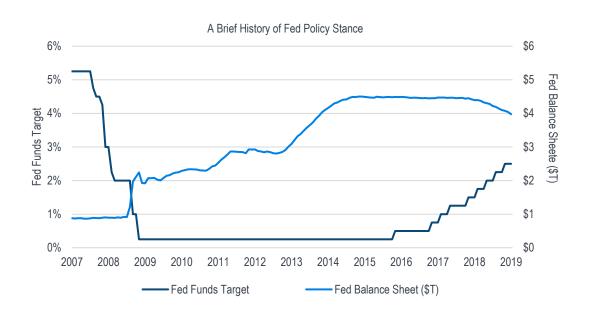
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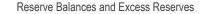
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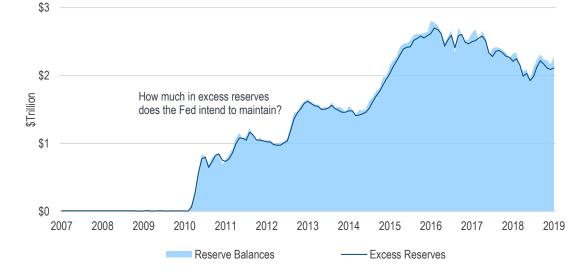
FUTURE POLICY TAKES FORM IN FED'S JANUARY MEETING MINUTES

The meeting minutes formalized Powell's press conference comments, but were short on rationale and created new questions.

- Arguably the most interesting and informative part of February's release of the Fed's January <u>meeting minutes</u> was the section entitled, "Long-Run Monetary Policy Implementation Frameworks."
- While providing additional detail and structure to some of Chairman Powell's January post-meeting comments, this section also created new questions.
- Even as the size of the Fed's balance sheet sits at \$4 trillion, the minutes make frequent reference to the notion of, "completion of the normalization of the size of the balance sheet." In light of these two seemingly conflicting realities, a few questions might reasonably be raised:
- When speaking of "normalization of the size of the balance sheet," does the Fed mean the same thing today in 2019 that it meant when it first articulated the term years ago, as early as 2014?
- In years past, did "normalization of the size of the balance sheet" ever mean a return of the size of the balance sheet to pre-crisis levels?
- It also is not entirely clear what precisely the Fed means in this context by the words "completion" or "conclusion."
- Upon "concluding the normalization of the size of the balance sheet," would the Fed actually consider it to be normalized if it were still \$3.5 trillion?
- If yes, in what sense would it be normalized?
- Does "completing balance sheet normalization" simply mean bringing an end to the current roll-off process?
- Does it mean the Fed will go back to reinvesting principal payments it receives from its maturing assets?
- Does the change mean that the committee no longer considers its sizeable balance sheet to be contributing to the stance of monetary policy?
- In the future, if the Fed must increase the size of the balance sheet in order to maintain the size of the excess-reserve buffer, will that not affect the stance of policy, just as it did during the various phases of QE?
- Rather than "plans for concluding," would, "plans for *abandoning* the normalization of the size of the balance sheet" be more accurate?
- From a broader perspective, perhaps a more important question is this: What are the longer-run implications and/or risks of a non-economic investor like the Fed maintaining such a large presence in the world's biggest bond market?







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