

LGIMA's Multi-asset Market Update

January 2020

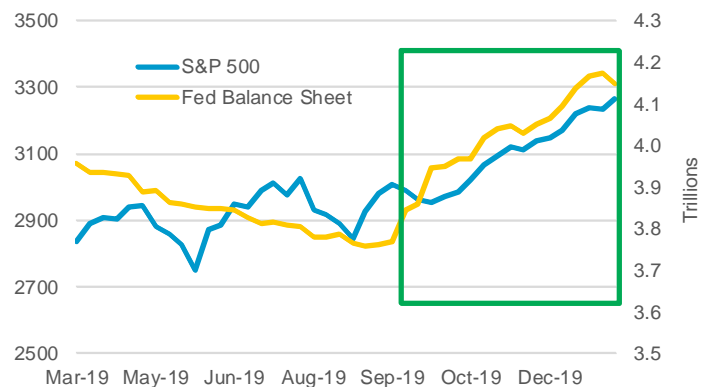


Equity market

As an intern at a bulge-bracket firm many years ago, your author attended a meeting in the office of a very senior manager (who has since become a senior executive for the bank), and the group of interns noticed children's drawings on her office whiteboard. Another intern used this cue to ask how the manager tried to balance her life, to which she responded that having her kids sometimes accompany her to the office on the weekends was the only way to accomplish what she felt that she absolutely must. She went on to say, "85% is the new 'A'." Meaning, of course, that if you accomplish 85% of what you set out to do working in this industry and balancing your personal life, you're at the top of the class. Doing 100% simply isn't possible, so we grade on a curve. While this kind of thinking has become almost a truism, we think this story is worth noting in the context of a few current themes.

The chart on the right shows the balance of Federal Reserve assets against the S&P 500 price level. This depiction became a mainstay during the remarkable 4Q19 rally, but we think it's worth including again here in case it fell into the 15% of things you missed initially. The 85% rule applies here because it's a colloquial depiction of signal filtering problems. The Fed said they would support liquidity, and ergo asset prices, by purchasing bonds, and they did. Risk assets responded in kind. The Fed signaled their support for markets, and the rest of the analysis, estimates and guesswork was just noise.

Fed Assets vs. S&P 500

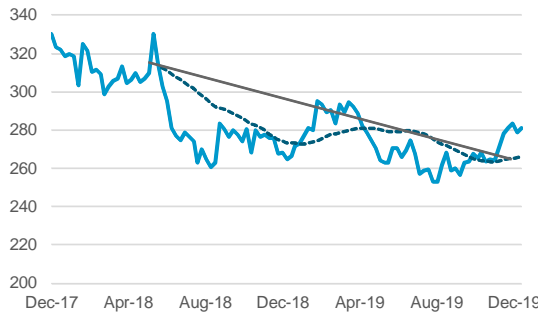


Source: Bloomberg, as of 1/14/2020

So, if the Fed is signaling a dovish commitment, to what else should we be attuned in 2020 and beyond (what are some of the 85% of things we must focus on)? We note two things of interest to us. First is that Growth has trounced Value since the Fed balance sheet expansion began, unwinding what many speculated was the initial stage of a significant style rotation. This also coincides, though, with a consensus view that 4Q19 earnings will inflect positively. Together, these developments may portend further gains for equities despite last year's massive rally, stretched valuations and a particularly high presence of tail risks (all of which we covered in our December report). We continue to view put spread collars very favorably as a way for clients to maintain some upside exposure while simultaneously protecting against earnings disappointments or other, larger tail risks.

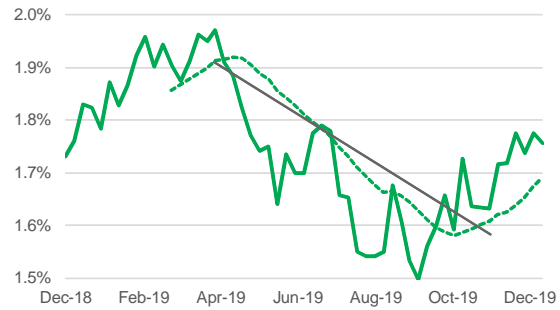
Longer-term, the Fed is also signaling a tolerance for higher inflation (see articles [here](#), [here](#) and [here](#)). We therefore have an accommodative Fed during a period of tight labor markets and rising wages, and some typically inflation-sensitive assets may also be at inflection points.

Copper



Source: Bloomberg, as of 1/14/2020

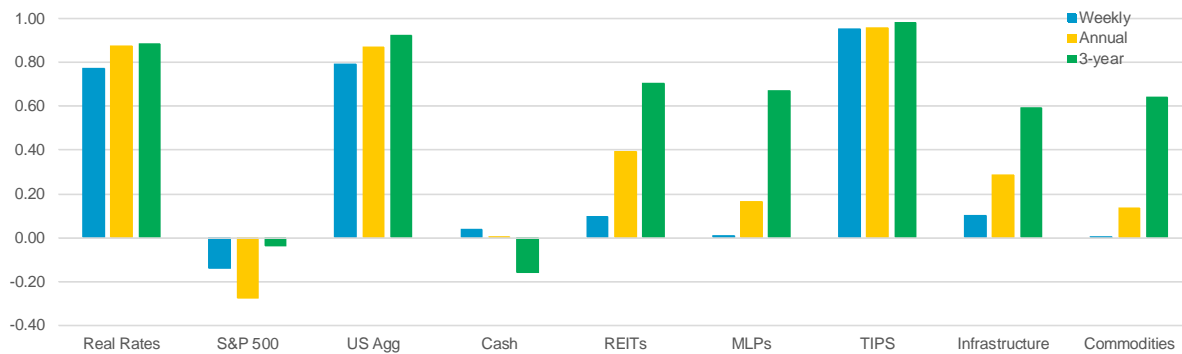
Inflation Expectations



Source: Bloomberg, as of 1/14/2020

We remain long US inflation exposure tactically, and we also reflect on the chart below (from some recent work to help a client identify a usable inflation factor) as we monitor longer-term inflation developments.

Correlations with Inflation



Source: Bloomberg, as of 1/14/2020

Finally, on an editorial note, if 85% is the new 'A', what might the benefits be of simply reducing expectations rather than grading on a curve? If we do not attempt to call every tick or turn, might it in return focus us more completely on a long-term perspective? Professional investors may be able to make higher quality decisions, avoid unnecessary volatility and reward the institutions or their clients according to their goals rather than market benchmarks. Maybe it would reduce the anxiety and uncertainty that build between investment committee meetings and only partially fade as the resulting decisions are implemented week-to-week, month-to-month or quarter-to-quarter. Standards for investors must and will remain exceptionally high. And we're not so naïve to think that being vigilant to the arrival of new information isn't important, nor that the dilemma of being benchmarked both to markets and to peers will disappear completely. However, investment objectives are unique, particularly for retirement investors, and the establishment of and evaluation against performance objectives should appropriately weight that.

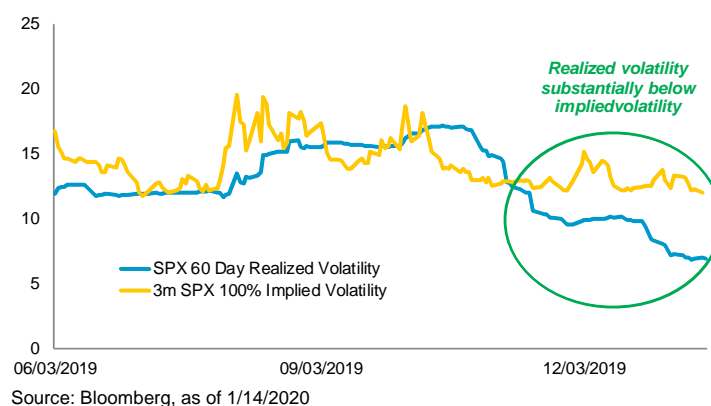
Equity volatility

S&P 500 implied volatility has continued to roll down as the index has rallied unrelentingly. At the money 3-month puts imply around 12% volatility whereas the one-year level is below 15%.

Realized volatility remains subdued and has continued to fade substantially lower. For example, shorter dated measures of realized volatility such as the rolling 30- and 60-day window remain well below 10% for months. A 60-day realized volatility level below 7% expresses that the underlying price index has moved no more than about +/- 0.4% per day.

In the fourth quarter of 2019, realized and implied volatility were tracking very closely. This meant that neither long nor short volatility strategies dominated, and even some hedging activity was possible to defend for active volatility traders. In this past month, however, realized volatility has gapped substantially below the above described implied volatility levels. Therefore, any downside hedging efforts have produced negative time premium decay. Likewise, any short volatility and long risk exposure strategies have likely produced great results.

Realized vs. Implied Volatility



Rates market

Rates stayed fairly range bound while the yield curve steepened slightly over the past month. Rates traded sideways after the December FOMC meeting due to light trading volumes (typical of the holiday-related shortened weeks at the end of the year). It was fitting that the final big movement in rates last year was the result of a trade related tweet, which seemed to be the cause of most of the major rates market movements in 2019. On December 31, President Trump tweeted that a Phase One US-China trade deal would be signed on January 15, spurring a 7 basis point reflationary selloff in the long end as the 30-year US Treasury rate closed out the year at 2.39, 62 basis points lower than the 3.01 level seen at the end of 2018. The Fed's intervention to calm the repo markets over the past few months brought relief to year-end balance sheet funding pressures. Although overnight GC did trade in the 1.80s early in the day during the last trading session of the year, the markets quickly settled down and SOFR settled at 1.55 on the day, just 1 basis point higher than where it closed the previous day. At year end in 2018, SOFR spiked nearly 70 basis points over year end. On January 14, 2020, the Fed announced that they will continue their \$120bln overnight maximum through at least February 13 and term repo operations of \$30bln maximum (\$5bln less than the current maximum) will continue until at least February 13 as well.

Geopolitical events and weak data have been driving the rates markets in the new year. A US drone strike in Baghdad killed Iranian General Soleimani, sparking fears of retaliation as the US 30-year rate dropped to 2.24 and oil jump 3-4% higher. The situation calmed over the weekend and seemed to deescalate after a January 7 ballistic missile launch against US bases in Iraq saw no casualties on either side. The Iranian government released a statement saying, "Iran took and concluded proportionate measures in self-defense...we do not seek escalation or war, but will defend ourselves against any aggression." By January 8, oil had dropped back to pre-attack levels and the 30-year Treasury rate sold off to 2.36.

On the data front, ISM printed at 47.2, the lowest level seen since 2009. PMI surprised to the upside, but the December employment report was seen as a disappointment. Non-farm payrolls came in at +145k versus the +160k estimate, but more notably, average hourly earnings only grew at 0.1% month-over-month versus the +0.3% forecast. The Fed's Evans stressed the importance of trying to maintain a 2%

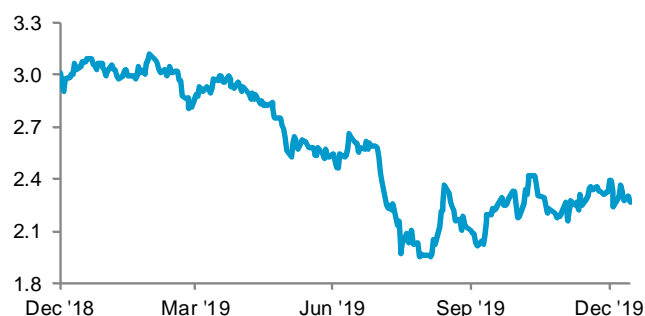
inflation target even if it leads to continued lower global rates. “There’s been a process of going through the stages of grief about a low neutral rate. These factors are basically the hand we’ve been dealt for the next five to 10 years.” While the Fed seems determined to stay on hold for the rest of the year, futures contracts are implying a 60% chance of an interest rate cut by the end of 2020.

US Rate Environment

Index	1/14/2020	1-month ago	3-months ago	1-year ago
Fed Funds Rate	1.75%	1.75%	2.00%	2.50%
2 year	1.57	1.60	1.59	2.54
5 year	1.62	1.65	1.55	2.53
10 year	1.81	1.82	1.73	2.70
30 year	2.27	2.25	2.19	3.03

Source: Bloomberg, as of 1/14/2020

30-Year Treasury Rates



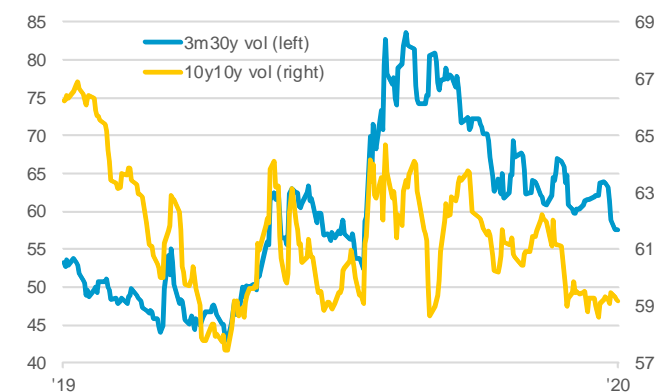
Source: Bloomberg, as of 1/14/2020

Rates volatility

Implied volatility experienced a small spike as rates rallied in the wake of the US drone attack that killed Iranian General Soleimani. The spike was short lived, however, as fast money quickly sold into the strength. Sellers persisted, pushing short dated volatility even lower. Implied volatility on 3m30y is now at 57.7abpv, its lowest level since the massive rally in rates last August. The issues highlighted in last month’s Multi-Asset Report continue to be present – namely positive trade progress, low levels of rates, inflation staying below target levels, and the Fed’s determination to stay on hold – which has kept a lid on implied volatility going higher. Looking back at where volatility was at this time last year (when rates were 70-100bps higher) short dated volatility on 30y tails is basically unchanged, while short dated volatility on shorter tails has collapsed. Longer dated options across all tails have dropped 5-15abpv in the past year, inverting the volatility expiry surface and creating a strong interest in forward starting volatility structures.

According to Citi Research, there were \$4.5bln callable redemptions in December in 2019 and nearly \$4bln more calls have been announced for Q1 of this year due to the low level of rates. Not surprisingly, Formosa issuance has picked up sharply from one year ago and is expected to continue for the foreseeable future. Starting in September of last year, there has been a shift in issuance to 40y callables from 30y callables, presumably to get higher yields. This longer dated issuance could further depress longer dated volatility, particularly in longer tails with expiries longer than 10y.

3m10y Implied Volatility and 10y10y Implied Volatility



Source: Citibank, as of 1/14/2020

Current Implied Volatility Levels and Change Over One Month

P/TAIL	1Y	CHANGE	2Y	CHANGE	5Y	CHANGE	10Y	CHANGE	30Y	CHANGE
1M	25.8	-8.3	40.6	-8.9	53.3	-6.7	55.7	-0.5	54.2	1.6
3M	34.1	-3.7	46.2	-8.6	57.9	-4.5	60.1	1.2	57.7	2.8
6M	38.8	-9.1	49	-10.6	58.9	-6.3	61.2	-0.4	58.5	1.6
1Y	51	-9.2	56.5	-11.2	61.4	-7.6	62.3	-2.4	58.6	-0.9
2Y	63.4	-12.3	63.9	-14.1	63.2	-9.9	62.9	-5.3	58.6	-3.4
3Y	64.5	-15.7	64.8	-15.6	63.8	-11.7	63.1	-7	57.6	-5.7
4Y	65.4	-15.5	65.2	-15.7	64.2	-11.7	63.2	-7.6	56.9	-6.4
5Y	66.2	-14.5	65.2	-15.2	64.4	-11.6	62.8	-8.2	56.4	-6.6
7Y	64.9	-13.2	63.8	-13.2	63.3	-10.5	61.4	-7.7	55	-6.3
10Y	63.1	-9.8	62.2	-10.2	61.2	-8.9	59.2	-6.6	53.1	-5.2

Source: Citibank, as of 1/14/2020

Credit market

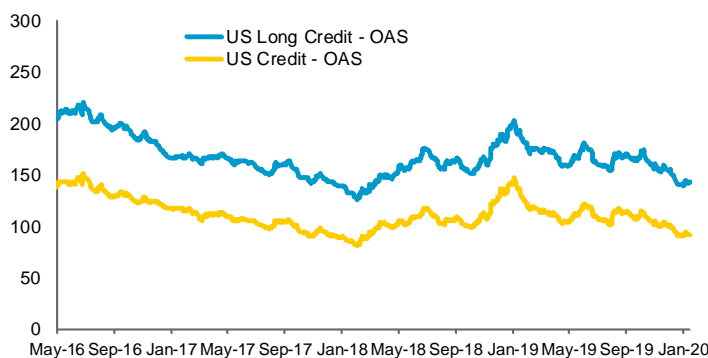
Investment grade credit marked a record year in 2019, generating a total return of 14%. The Bloomberg Barclays US Credit index ended 2019 at 90 bps by tightening 53 bps throughout the year. Heading into the new year, market consensus on the risk of US recession has been reduced, and the macroeconomic outlook is shaping up for the US to grow at trend, between 1.5-2.0%. While the macro backdrop is supportive for credit, current valuations are very tight. Investment grade corporates have been relentless in the primary market, issuing \$69 billion of bonds during the second week of January alone. This marks the second highest weekly volume on record for supply. As corporates enter their blackout periods before fourth quarter earnings announcements, the volume of issuance is expected to subside.

While the primary issuance calendar has been hot to start 2020, so has the level of demand for bonds. Inflows to US investment grade credit bond funds and ETFs reached nearly ~\$9 billion during the first full week of 2020, marking one of the highest volumes on record. With less issuance forecasted for 2020, combined with robust demand from bond funds and overseas buyers, a positive supply/demand dynamic is prevalent in the corporate bond market.

This strong technical background, along with easing geopolitical tensions and a

Phase One trade deal scheduled to be signed this week, has led us to remain slightly bullish on IG credit in the near term. Throughout the first half of January, long duration credit spreads widened 3 basis points to 142. As long as the consumer remains stable, we believe the economic backdrop will also remain in line with trend growth. LGIMA estimates the probability for the US to enter a recession in 2020 to be around 20%. Looking forward, investors will likely focus on upcoming earnings releases as fourth quarter expectations for revenues, earnings, and EPS growth are 2.0%, -2.7%, and -0.5%, respectively.

US Credit Spreads



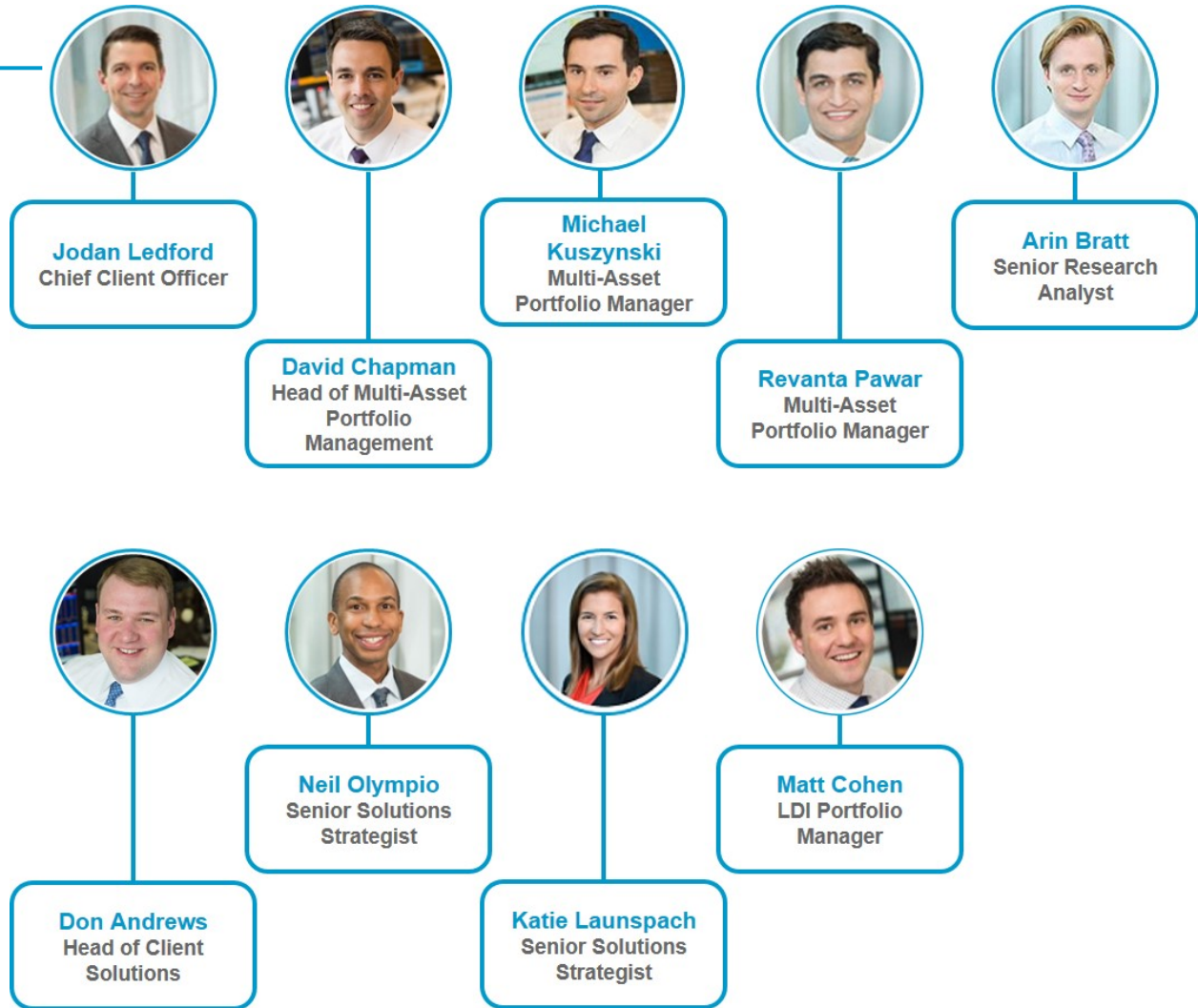
Source: Citibank, as of 1/14/2020

Scenario-Based Asset Allocation

Scenario Summaries

Name	Description	Risk Assets	Inflation	Rates	USD	Probability (last month)
Global Recession	<ul style="list-style-type: none"> • Dominated by fears of imminent recession, US growth below 1%, China faltering and below 5%, Europe in recession • US & UK rates near 0 • Commodities drop, political uncertainty contributes to recession 	▼	▼	▼	—	15% (15%)
Slugflation	<ul style="list-style-type: none"> • Sluggish global growth and manufacturing remains in a mild recession • Forcing continued Fed rate cuts (totaling 25-75bps) in 2020 • Inflation remains below target • Simmering trade war tensions 	▼	▼ / —	▼	—	15% (25%)
Economic Stabilization (Roadmap)	<ul style="list-style-type: none"> • US grows around trend • Steady Europe growth and inflation • China stimulus helps stabilize growth given trade war uncertainty • Fed on hold and inflation back to target • Some de-escalation of trade war 	▲ / —	▲ / —	—	—	25% (25%)
Global Growth	<ul style="list-style-type: none"> • US growth strengthens, buoyed by 3 early cuts, strong consumer consumption and no material trade war escalation • China stimulus leads to an overshoot of 6.5%+ • Europe rebounds with EM growth • Other economic data does not point to material overheating 	▲	▲	▲	▼ / —	15% (10%)
Rates Rebound Risk Off	<ul style="list-style-type: none"> • US inflation picks up rapidly, forcing the Fed to hike within the coming 12 months • Global government bond yields rise fueled by rising rate and future expectations • Equity markets sell off on the back of higher yields 	▼	▲	▲	▲	15% (10%)
Trumpilocks	<ul style="list-style-type: none"> • Growth improves • Inflation does not pick up, so little prospect of central bank hikes and limited response from long-term yields 	▲	▼ / —	▲	▼ / —	15% (15%)

Contributors



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