December 2020

# Multi-asset Market Update

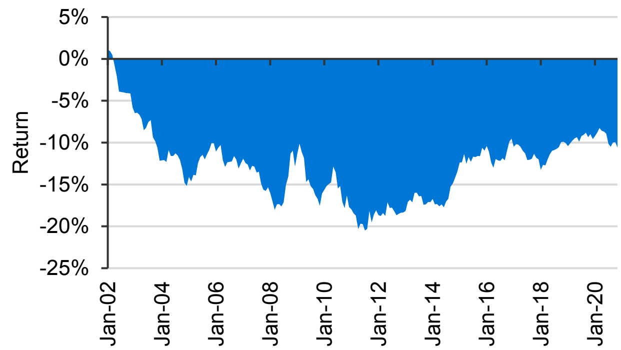
## Equity market

Our view remains unchanged from the last few months. We are constructive on equities and would be inclined to add risk except that our view is fairly consensus and challenged by already buoyant sentiment. Our positive view is driven by a supportive, early cycle economic backdrop and the relative valuation of equities against other asset classes. For example, equity valuation is stretched on an absolute basis but not as stretched as credit markets and estimates of an equity risk premium against Treasury yields still appear relatively attractive. On the other hand, survey and sentiment data seem to indicate that most others view equities as we do – if not much more bullishly – and these tend to be contrarian signals or at least reason for challenging our own views a bit more strongly.

One facet of global equity markets that is becoming increasingly interesting to us, though, is the risks associated with currency returns in international exposures. There is an abundance of literature on the potential value of and approaches to currency hedging. There is also an abundance of confusion, in our view, over how to choose an approach (if any). For example, in the presence of any form of purchasing power parity, long-term returns to currency exposures should be zero, but in the short-term that is typically not the case. Investors are left with the conundrum of possibly hedging something with zero returns anyway at a non-zero cost, recognizing the potential for uncompensated volatility and trying to find a hedging approach that overcomes the cost and excess volatility.

We find this interesting because the number of client conversations about hedging non-USD exposure has increased recently. However, this is after a long period where non-USD exposure was already a drag on returns. In *Figure 1*, we see the contribution to total returns in the MSCI World index between the unhedged and hedged versions. The contribution has been significantly negative for nearly 20 years, and was particularly painful during the dollar's rally coming out of the GFC. Yet, much of the markets, economics and policy research we are reading now points to the significant potential of a protracted bear market for the dollar. If that transpires, leaving FX exposures unhedged could contribute positively to returns.

**Figure 1: MSCI World Cumulative FX return**




Source: Bloomberg, data as of December 15, 2020.

Despite a bearish USD market view, though, it may still make sense to hedge FX exposures, particularly for institutions whose only liabilities are in dollars. Ignoring return expectations, the FX return component of global equity exposure has an annualized stand-alone volatility of about 3% (keep in mind that US market cap has accounted for ~50% of global market cap over this period). That FX exposure, perhaps quite obviously, is negatively correlated with a proxy of pension liabilities. As we demonstrated in work published earlier this year, that excess volatility relative to liabilities creates an additional drag on total returns or funded status beyond what might be expected as a return to currency exposure in isolation. And leaving currency risk unhedged can be even more problematic during periods of short-term stress when the dollar typically outperforms.[1]

In 2021, we will present fully our views on both strategic and tactical FX hedging in an asset-liability framework. We are excited about sharing our findings and for what interesting events and experiences await us next year. Until then, we wish you all a very happy and healthy holiday season and best wishes for 2021.

## Equity volatility

Overall implied volatility levels have risen modestly while realized volatility has continued to decay as the market settles into the post-election holiday season. This time typically encompasses a lower volume, lower activity environment, though one which at times can breed surprising liquidity shocks.

Like last month, the implied volatility term structure remains upward sloping, which signals conditions more typical of lower stress environments. Nonetheless, longer dated implied volatility, such as one year and out, has risen about 1 volatility point to above 21. This elevated implied volatility level remains marginally inconsistent with the spot price a few percent higher. Likewise, 10-day realized volatility has touched below 10%, or an approximate +/- 0.60% daily move in the spot price. We describe this as marginally inconsistent, since a rising market and lower recent realized volatility are typically conditions that support a decay in implied volatility. This may serve as a reminder from the option market that we remain in an elevated stress regime, despite market enthusiasm.[1]

**Figure 2: S&P 500 10-day realized volatility**


Source: Bloomberg, data as of December 15, 2020

Client interest has increasingly included wider and/or more indirect hedging solutions, whether simply by widening out collar overlays or considering proxy and risk premia-based hedges. A one-year put spread collar with an 80/95% strike put spread is made costless through the sale of a 109% call. This is historically still a somewhat favorably elevated level.

## Rates market

Rates are in the same spot they were a month ago, but not before moving higher/steeper then quickly reversing back lower/flatter. The front end – and to some extent the belly – of the curve remains relatively tethered, so moves in the long end have been much more volatile (though, still small). The curve seems to either bear steepen or bull flatten from week to week. Right now, rates seem to be locked in a tug of war between optimistic medium-term expectations and short-term difficulties. Looking ahead, investors are optimistic about a successful vaccine rollout and the Biden presidency establishing stability in the White House, specifically with regards to international relations and China. But first we must work though the logistics of a nationwide rollout, contend with COVID-19 case and death rates continuing to reach new highs daily, and navigate political turmoil around agreeing on a stimulus package, President Trump's election contention, and two Georgia Senate runoff elections in January that will determine which party controls the Senate.

**Figure 3: US rate environment**

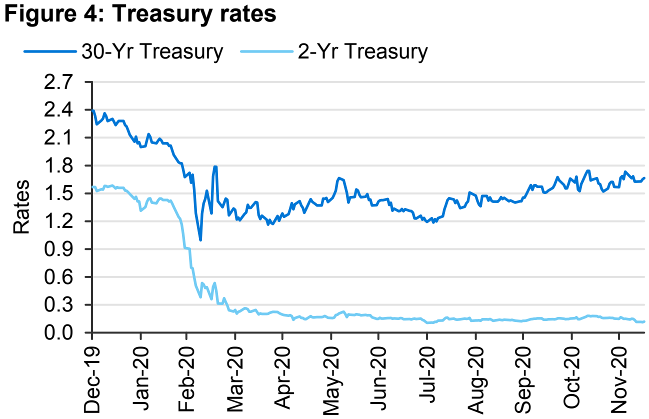
| Index (%) | 12/15/2020 | One month ago | Three months ago | One year ago |
|---|---|---|---|---|
| Fed Funds Rate | 0.25 | 0.25 | 0.25 | 1.75 |
| 2-year | 0.11 | 0.18 | 0.14 | 1.66 |
| 5-year | 0.36 | 0.41 | 0.27 | 1.73 |
| 10-year | 0.91 | 0.90 | 0.68 | 1.89 |
| 30-year | 1.65 | 1.65 | 1.43 | 2.31 |

Source: Bloomberg, data as of December 15, 2020

The curve bear steepened in Thanksgiving's shortened week as AstraZeneca unveiled their vaccine's encouraging results which included the added benefits of being cheaper with less stringent storage and transportation logistics as the Pfizer and Moderna vaccines, making it a viable candidate for use in developing nations.

The Biden team announced former Fed Chair Janet Yellen would be named Treasury Secretary, which furthered the bear steepening move. A Citi analyst notes that this could lead to central banks becoming "redistribution agents" and employing "shadow mandates of under-employment and social stability" – presumably leading to higher inflation in the long-term. However, long end buying following a higher than normal month end extension (~0.15 years in the long Treasury index), however, kept a cap on how high rates could move. The 30-year Treasury rate closed out November at 1.57.[1]

**Figure 4: Treasury rates**




Source: Bloomberg, data as of December 15, 2020

Another interesting development in the US rates market at month end was the announcement by regulators that US 3, 6, and 12-month LIBORs will continue to be published until June of 2023, well beyond the previously announced goal of December 2021. This will allow a majority of LIBOR based contracts to expire without needing to default to fall back language. Although LIBOR will continue to be published, the calculation date for the fall-back spread could still happen in 2021. But the markets interpreted this release as a sign that the calculation date will be pushed back as well, causing FRA/OIS spreads in the front end to tighten 4-5 basis points in one session.

The first week of December saw rates snap back from the month end buying, moving the curve higher and steeper. But the big push higher in rates came from the November employment numbers. NFP came in at a disappointing +245k, well short of the +460k consensus estimate. The unemployment rate dropped to 6.7%, but that was driven by a decrease in labor participation rate. This NFP print struck the perfect balance of being not strong enough to dissuade the need for stimulus but at the same time it wasn't weak enough that the Fed needs to push for extending the weighted asset maturity (WAM) of their portfolio by buying long end securities. The long end rate sold off to the post-March highs of 1.75.

The following week saw a sharp reversal of this euphoria as stimulus talks continue to be delayed and vaccine rollout challenges emerge. The ECB has continued to implement further stimulus and Brexit talks have started to (once again) make headlines, and not in a good way – this pushed European rates lower and US rates followed suit.

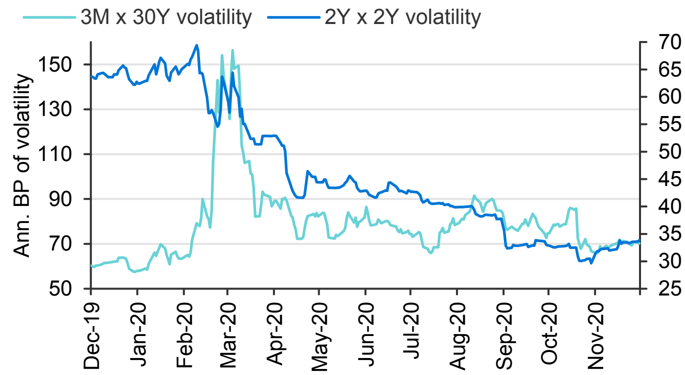
This week saw renewed optimism in a stimulus passing, with the market selling off on news of a meeting between Pelosi, McConnell, Schumer, and McCarthy to "finalize" details of the proposal. The 30-year Treasury rate is trading at 1.65.[1]

## Rates volatility

Rate volatility had a pretty uneventful month, mostly trading sideways but slowly grinding higher as rates moved higher. But with the 30-year rate failing to get above the 1.75 resistance point, there was no meaningful move higher in volatility.

Continued program selling also helped keep a lid on how high short dated volatility moved. With control of the Senate at stake in the January 5th Georgia runoff election, the related expiry carries about 3x a normal day, leading to the uptick in one-month volatility. Additionally, low strike receivers on 30-year tails caught a bid on the back of worsening COVID-19 trends headed into Thanksgiving and the potential for the Fed to extend the WAM of their portfolio in response to the financial backdrop of the pandemic.[2]

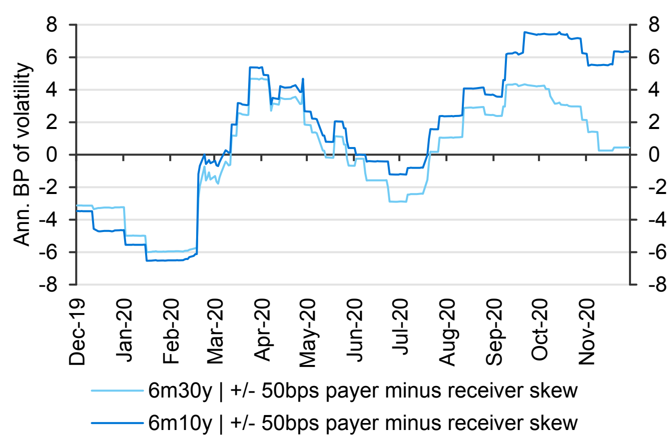
**Figure 5: Implied volatility**




Source: Citibank, data as of December 15, 2020.

In contrast to the above, some are now pricing in Fed action on an accelerated basis as fast money accounts purchased intermediate options on short tails, both at-the-money and high strike payers. Curve volatility followed similar themes, as dealers saw buying interest in short dated 5s30s curve floors to express long end flattening and in 2s10s curve caps to express reflation trades. High strike payer skew in 5-year and 10-year tails also performed well.[2]

**Figure 6: Payer minus receiver skew**




Source: Citibank, data as of December 15, 2020.

In longer dated volatility, a subdued supply coupled with a bounce off the all-time lows in volatility on the lower right saw fast money buying of longer dated expiries on 10-year and 30-year tails.

**Figure 7: Current implied volatility levels and change over one-month**

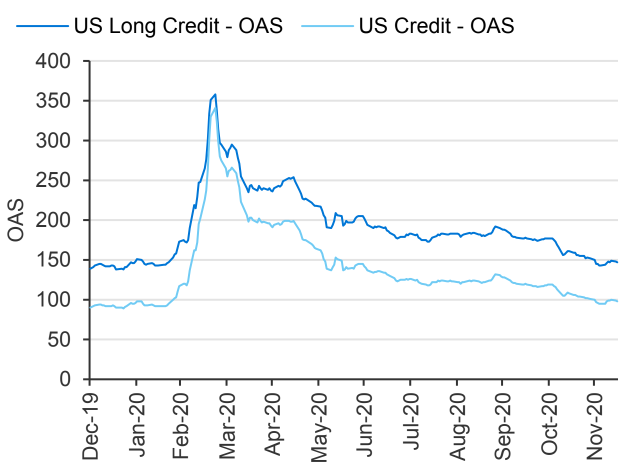
| P/TAIL | 1Y | Change | 2Y | Change | 5Y | Change | 10Y | Change | 30Y | Change |
|---|---|---|---|---|---|---|---|---|---|---|
| 1M | 11.7 | -1.5 | 14.4 | 1.3 | 35.5 | 5.4 | 62.4 | 7.6 | 73.8 | 7.5 |
| 3M | 12.3 | -2.0 | 14.4 | -1.2 | 37.0 | 4.3 | 59.9 | 4.2 | 70.4 | 3.4 |
| 6M | 12.9 | -1.1 | 17.9 | 1.2 | 39.8 | 4.8 | 59.3 | 3.6 | 68.8 | 2.9 |
| 1Y | 16.5 | 0.7 | 21.7 | 2.3 | 43.2 | 4.6 | 59.2 | 2.8 | 66.6 | 2.8 |
| 2Y | 26.2 | 2.5 | 33.9 | 4.2 | 49.8 | 4.5 | 60.5 | 2.7 | 64.3 | 2.6 |
| 3Y | 39.0 | 2.7 | 45.0 | 5.4 | 54.4 | 4.1 | 61.5 | 2.3 | 62.7 | 1.9 |
| 4Y | 49.1 | 4.0 | 52.4 | 5.1 | 58.2 | 4.2 | 62.2 | 2.5 | 61.5 | 2.0 |
| 5Y | 55.9 | 4.8 | 57.3 | 4.5 | 60.8 | 4.1 | 62.3 | 2.8 | 60.2 | 2.2 |
| 7Y | 60.4 | 3.8 | 60.2 | 3.3 | 61.7 | 3.3 | 61.8 | 2.5 | 57.9 | 1.8 |
| 10Y | 61.5 | 2.1 | 61.0 | 1.8 | 61.1 | 2.3 | 60.4 | 1.8 | 55.2 | 2.1 |

Source: Citibank, data as of December 15, 2020.

## Credit market

After one of the strongest performance months on record, December credit spreads have remained relatively range-bound. The US vaccine shipped this week and Investment Grade supply is expected to slow for the remainder of the month, potentially signaling a calm end to a chaotic year. However, economic fundamentals have showed signs of slowing, and a US COVID-19 relief bill has failed to materialize at this point in time. Although 2020 has been far from typical, the Bloomberg Barclays US Long Credit Index would suggest otherwise, having retraced to December 2019 levels. The index currently sits at 147 basis points, which is 3 tighter on the month and only 8 wider on the year.[1]

**Figure 8: US credit spreads**




Source: Bloomberg, data as of December 15, 2020.

Year to date, US Investment Grade Supply has reached $1.7 trillion, which is 61% ahead of 2019's pace of issuance. Forecasts for 2021 project a modest decline, with baseline expectations ranging from $1.2-1.3 trillion for the year. US inflows have recently slowed, but remain positive, and overnight flows are expected to remain stable going into the new year. With a projected $40 billion in supply for the month of December, market technicals continue to look attractive in the near-term.

However, from a macroeconomic standpoint, November non-farm payrolls suggest that hiring has slowed. The payrolls gain of 245k was significantly below the consensus of 460k. As hiring slows, some are worried that consumption could fall off, leading to a contraction in growth at the start of 2021. Fiscal stimulus talks have also failed to materialize, but negotiations are ongoing. If the anticipated $900 billion in aid is approved, the emergency unemployment benefits and PPP loans would be very supportive of the credit market.

The debate at the heart of the credit outlook is now valuations. After a remarkable November rally that ranked as one of the top 10 months for performance going back 30 years, investment grade credit markets are now at-or-below the 10th percentile. Looking ahead, the question is whether all the value has been squeezed out of the asset class as a result of the latest rally. Based on the seemingly rich valuation levels, we have downgraded our short-term outlook for US investment grade credit to neutral for the foreseeable future.

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1 Source: Bloomberg
2 Source: Citibank



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