March 2021

# Multi-asset Market Update

## Equity market

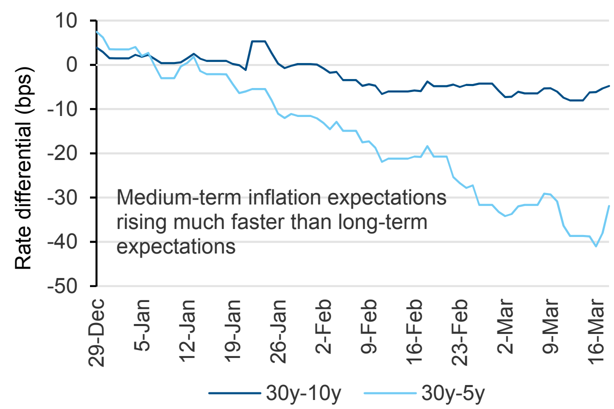
It has been a fascinating, dizzying month since we last wrote. Our fundamental macro forecasts have risen farther above consensus for both near-term growth and inflation, and we maintain our neutral stance on risk assets. The growth-inflation-equities-rates interplay seems to be top of mind for nearly everyone, and conversations with clients spanning corporate pensions, public plans and endowments continue to highlight how institutions must respond to these common underlying forces in each their own unique ways.

We are having frequent conversations regarding the potential impacts of inflation on pension funded status. There are several competing dynamics in this context. First, plans may have embedded features like COLAs (a short inflation position), return-seeking assets that have variable inflation dynamics and, on average, an implicit short bond position (potentially long inflation). The relative influence of each factor depends on a pension's funded status, asset allocation—including any use of LDI strategies—and future path of realized inflation. Pensions can influence, if not completely control, those first two aspects, so it's the latter we must adapt to, and the market is currently pricing a specific inflation path.

*Figure 1* shows us that the curve for breakeven inflation rates has inverted significantly. This could be interpreted as a reasonable likelihood of both the Fed maintaining its commitment to average inflation targeting (AIT) and the Fed ultimately succeeding at containing inflation. Put simply, inflation will rise meaningfully the next few years, but will do so in an orderly way and then everything will normalize. This could be a very supportive environment for many risk assets, but of course that is critically dependent upon the ultimate realized path that is out of our individual control.

Consistent with rising expectations for, and attention on, inflation, we have fielded other questions about how risk parity may perform in a rising rate environment. Clients are concerned that rates rising faster than anticipated may incite risk parity strategies to sell some of their levered

**Figure 1: Breakeven curve slope**

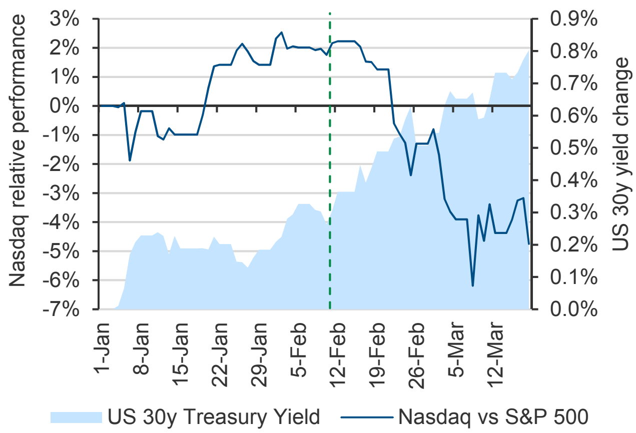



Source: Bloomberg, data as of March 18, 2021.

bond exposure, causing rates to rise further still, likely leading to a further uptick in rate volatility, leading to more deleveraging across the entire strategy. Yet in another case, an endowment is considering extending the duration and size of its Treasury allocation, relying on the historically negative correlation between long Treasuries and equities to cushion potential equity drawdowns. These examples highlight just varied (and in some ways opposite) the primary concerns of institutional investors are today, but the issue that is central to both examples is the equity-bond correlation. And, right now, rates seem to be the more causal factor in that relationship.

For example, our last publication happened to coincide with the peak of Nasdaq outperforming the S&P 500 and the beginning of another strong, upward move in interest rates as shown in *Figure 2*. We choose the relative performance of Nasdaq for this illustration because it is a broad representation of equities that are effectively the longest duration—growth-oriented tech companies whose current prices are influenced more by their estimated terminal value than current earnings (if they have any). In a classical discounting framework, then, it is sensible that rising rates would negatively affect those share prices.

**Figure 2: Equities vs. rates**




Source: Bloomberg, data as of March 18, 2021.

These observations – the shifting market price of inflation, the role of duration in portfolios and the equity-bond correlation – highlight to us interesting opportunities for institutional investors. First is the potential benefit of owning options. While the current backdrop is very supportive, markets are pricing in relatively precise outcomes, and macro volatility (in either direction) tends to generate market volatility. In the event the Fed does not adapt monetary policy according to current market pricing, owning rate options could be an attractive hedge and one we have held tactically in our multi-asset portfolios as we have maintained our positive equity stance. If we are indeed in a new equity-bond paradigm, equity hedges or even hybrid options could be effective protection against shorter-term regime shifts. And, finally, potentially utilizing customized equity indices to incorporate style and/or ESG factors that align more directly with the institution's risks and preferences may avoid unintentional exposure to drawdowns in other factors that have been dominant forces in markets more recently.

## Equity volatility

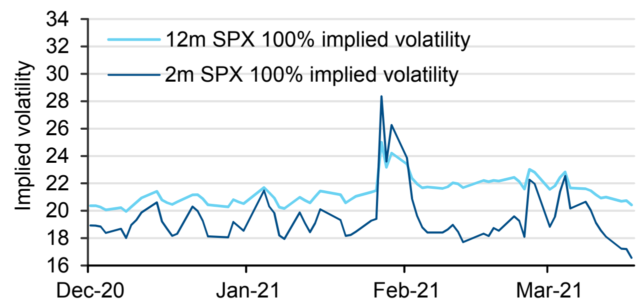
As we near the end of the first quarter, a few interesting volatility dynamics are worth highlighting. In last month's note we pointed out turbulence during the January month-end rebalancing period where hedge fund activity intersected with high retail trading flows. Then in February we saw a similar burst of elevated realized volatility. This month, however, the proximate trigger has been risk assets' response to significant rates moves and the potential knock-on effects for multi-asset portfolios and growth stock valuations.

Realized volatility tends to have an outsized effect on option pricing during sharp, one-day corrections. For example, in the last week of February, a nearly -2.5% drop in spot price coincided with a near-term spike in short-dated implied volatility. One-day market moves much beyond +/-2% often coincide with greater feedback loops between the spot prices and option market.

The dynamics in implied volatility, however, have nonetheless remained stable. Although stress in the underlying market is typically expressed through short-dated term structure, longer dated volatility has held firm and even trended lower through today. Meaning that, despite the recent large moves, movement in the option market was primarily contained in shorter-dated maturities. In the bigger picture, 1-year and further at-the-money implied volatility remains secularly elevated above 20% and has room to come in should economic normalization coincide with market calm.

Our clients have continued to fine tune hedging processes, either through engaging in cross-asset defensive portfolios or through more active management of strategic overlays. Overall, we believe that the current unique combination of elevated implied volatility combined with rising markets and relatively liquid trading conditions offer a lot of room to structure interesting solutions.

**Figure 3: SPX implied volatility**




Source: Bloomberg, data as of March 18, 2021.

## Rates market

With a few short-lived exceptions, global rates have shot higher in the past month and yield curves have steepened significantly. In US, the 10-year and 30-year Treasury rates seem to hit new post COVID-19 highs on a nearly daily basis.

**Figure 4: US rate environment**

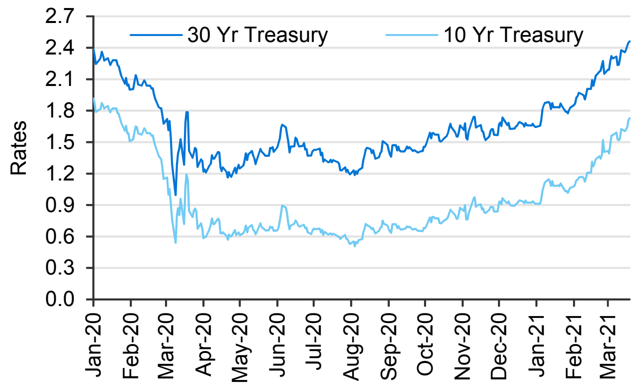
| Index (%) | 3/18/2021 | One month ago | Three months ago | One year ago |
|---|---|---|---|---|
| Fed Funds Rate | 0.25 | 0.25 | 0.25 | 0.25 |
| 2-year | 0.15 | 0.10 | 0.12 | 0.45 |
| 5-year | 0.86 | 0.58 | 0.38 | 0.69 |
| 10-year | 1.71 | 1.34 | 0.95 | 1.14 |
| 30-year | 2.45 | 2.13 | 1.69 | 1.78 |

Source: Bloomberg, data as of March 18, 2021.

A combination of strong data – notably 6% retail sales and 1.3% PPI prints far exceeding the wildest expectations – and weak auctions (20-year tailing 2.3bps, 30-year TIPS tailing 3.5bps) fueled the selloff in the latter part of February. The 5s30s yield curve steepness hit a multi-year high of 163 on February 24. The next day, the 7-year auction tailed 4.5bps, which is historically bad by any measure (a Goldman Sachs trader noted that going back to 2009, there have only been 3 other auctions in the 10y and under sector that have had deviations that large). The yield curve flattened massively in the wake of this auction, with 5s30s flattening nearly 20 basis points to 145. December 2022 Eurodollar contracts sold off 10bps while the December 2023 contract sold off 23bps. At this point, the market was firmly pricing in Fed liftoff before the end of 2022 and 3 more hikes by the end of 2023. This was in stark contrast to the Fed rhetoric and the December dot plot showing no hikes through the end of 2023. In his testimony to Congress in February, chair Powell reiterated the Fed's commitment to maximal employment and pointed out the uneven distribution of the recovery, noting it still had a long way to go in order to boost all workers.

Rates rallied on month end in part due to large index extensions from the new Treasury issues as well as a real money asset allocation shift from equities into fixed income. The 10-year US Treasury closed out February at 1.40 while the 30y rate ended the month at 2.15.

**Figure 5: Treasury rates**




Source: Bloomberg, data as of March 18, 2021.

The month end rally was short lived as rates rose about 15bps in the first week of March, partially on fears that the Fed was behind the curve which could lead to runaway inflation. Sentiment also remained optimistic as vaccine rollout numbers continued to improve and it became increasingly likely that Democrats would be able to get their $1.9 trillion stimulus passed even with zero votes from Republicans. Payrolls came in strong, showing +379k job gains in February vs a +200k expectation and a +117k upward revision to the previous month. The unemployment rate ticked lower to 6.2% as well. The following week it looked like the selloff might take a pause after the ECB announced they were increasing their bond buying program to combat rising Eurozone borrowing costs, a move that was out of sync from the on-hold to possibly tapering path of the Fed and BOJ. Bonds rallied on the back of this announcement, but it only lasted a few hours as those waiting for a pullback in rates used this as a selling opportunity.

The FOMC meeting this week caused the US curve to twist steepen. Many had expected the Fed to react to the market movements and alter their path forward expectations for rate hikes. While the Fed did update their economic forecasts to show a more robust recovery and increased inflation, the dot plot clearly disappointed many market participants as the front end rallied immediately after the statement release. The median dots still show no rate hikes in 2022 or 2023. It should be noted, however, that while there are 11 of 18 dots showing no hikes in 2023, five members expect 3-4 hikes by the end of 2023. Essentially the Fed is staying the course and dismissing recent inflation prints as temporary and a product of base effects, and imbalances in the recovery. The Fed increased their 2021 inflation forecast from 1.8% in December to 2.4% at this meeting, reinforcing the Fed's rhetoric that they are willing to overshoot on inflation before hiking rates. Only time will tell if they stick to that mindset. If rates continue to rise at this meteoric pace, the Fed could hit a breaking point and concede, but thus far they are not wavering. After the meeting the 10-year Treasury rate closed at 1.64, the 30-year rate ended at 2.42, and 5s30s had steepened back out to 163.2, all post COVID-19 highs.

**Figure 6: Current implied volatility levels and change over one-month**

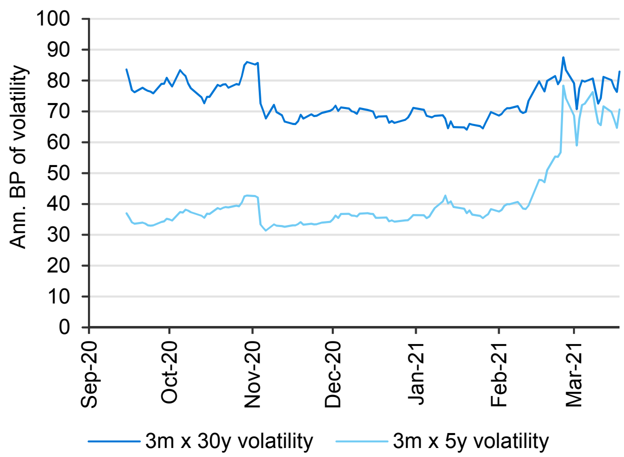
| P/Tail | 1Y | Change | 2Y | Change | 5Y | Change | 10Y | Change | 30Y | Change |
|---|---|---|---|---|---|---|---|---|---|---|
| **1M** | 15.1 | *1.6* | 24.1 | *7.1* | 71.9 | *24.8* | 87.5 | *15.4* | 83.5 | *4.1* |
| **3M** | 14.0 | *-0.6* | 24.9 | *7.7* | 70.8 | *22.9* | 87.5 | *16.1* | 83.1 | *4.8* |
| **6M** | 18.4 | *3.6* | 31.0 | *10.7* | 71.8 | *19.7* | 84.1 | *13.5* | 79.7 | *3.9* |
| **1Y** | 25.6 | *5.7* | 42.0 | *14.5* | 72.7 | *15.4* | 80.8 | *10.6* | 76.6 | *3.2* |
| **2Y** | 54.4 | *16.8* | 64.7 | *16.9* | 77.8 | *15.1* | 79.0 | *8.8* | 73.2 | *2.8* |
| **3Y** | 73.0 | *19.6* | 77.4 | *17.4* | 78.6 | *12.9* | 77.8 | *8.1* | 70.9 | *3.0* |
| **4Y** | 79.9 | *17.1* | 80.0 | *14.9* | 78.4 | *11.0* | 76.1 | *7.4* | 68.7 | *3.2* |
| **5Y** | 80.0 | *14.3* | 79.1 | *12.3* | 77.3 | *9.7* | 74.2 | *7.1* | 66.5 | *3.3* |
| **7Y** | 78.8 | *12.0* | 77.3 | *10.4* | 74.8 | *8.7* | 70.3 | *5.0* | 62.8 | *2.7* |
| **10Y** | 72.5 | *8.2* | 70.5 | *6.8* | 68.1 | *5.2* | 64.2 | *2.9* | 57.7 | *1.6* |

Source: Citibank, data as of March 18, 2021.

## Rates volatility

Rate volatility rocketed higher the past month, particularly in intermediate expiries on short tails, with the relentless bear move in rates. In the past month, the 5-year Treasury rate rose 30bps while the red and green Eurodollar packs sold off roughly 15bps and 28bps, respectively. While programmatic gamma sellers have persisted, the delivered volatility and higher rate levels continues to push volatility on the left-hand side to their highest post-COVID-19 levels.

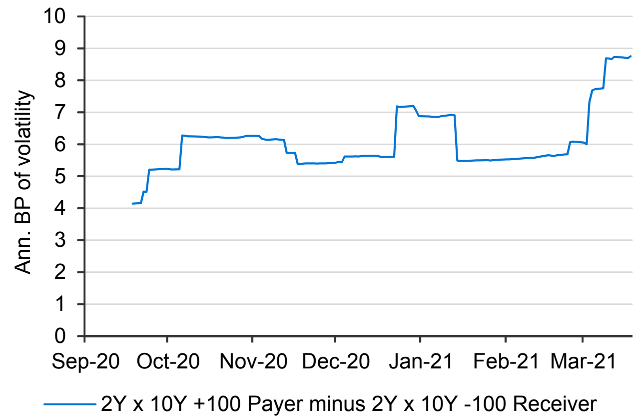
**Figure 7: Implied volatility**




Source: Citibank, data as of March 18, 2021.

A rotation out of 30y tails into 5y tails has been a persistent theme of the past month. Lower right volatility has risen somewhat despite callable desks getting longer from the dvega/drate dynamics as the curve steepening has continued to push long end forward rates higher. Even with the move higher in rates high strike payers remain well bid, particularly in longer dated options. Dealer desks have noted that they have seen a large uptick in high strike buying from “non-traditional” accounts as the consensus view is that rates will continue to rise from here. Although we have had a huge move in rates over the past month, rates overall are still historically low, even compared to the last time the Fed was on hold at 0. And even after the March FOMC meeting, the market is convinced that the Fed will start hiking much sooner than they are projecting, although this would not be the first time the market started pricing in hikes much earlier than they came to fruition. Rates can certainly go higher from here, but it remains to be seen, especially in belly tails, if volatility can continue to keep pace.

**Figure 8: Payer skew**

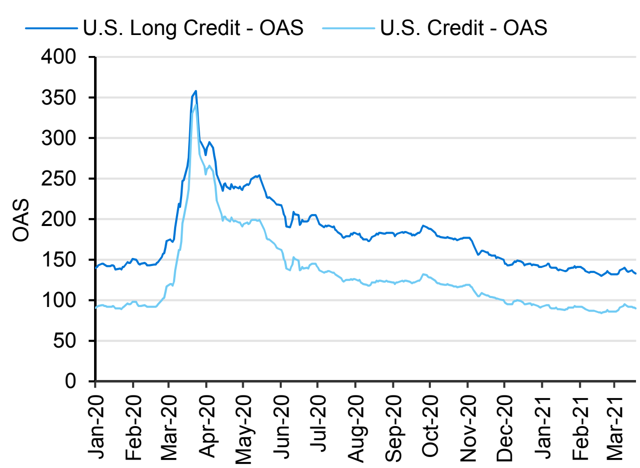



Source: Citibank, data as of March 18, 2021.

## Credit market

The first half of March was relatively choppy for US Credit, primarily as a result of rising Treasury yields. Early on, the Long Credit Index widened as much as 9 basis points, before a period of consistent tightening leading us to current levels. With that being said, year-to-date returns for US credit are down ~5%, which is the worst start to a year on record for IG Credit. Over the past 2 decades, when returns were similarly negative over the span of a quarter due to rising UST yields, precedent indicates we should have experienced further widening. So far, the investment grade market seems to be digesting the rapid upswing in UST yields very well. Currently, the US Credit Index is 1 tighter on the year while Long Credit is 7 tighter, at 91 and 134 basis points respectively.

**Figure 9: US credit spreads**




Source: Bloomberg, data as of February 18, 2021.

Going forward, the Fed has messaged that they are highly focused on avoiding Taper Tantrum repeat. The recent FOMC meeting communicated just that, as the balancing act between keeping rates low and managing inflation continues. Chair Powell affirmed that the Fed does not plan to raise interest rates until after 2023. However, expectations were sharply ramped up for economic growth, as around 22% of US adults have received at least one vaccine, and we're now administering around 2.3 million vaccines per day. The consumer continues to look unusually healthy, and we have seen a sustained increase in savings. As the US begins to return to normal, whether or not consumers deploy these savings could have large ramifications of growth, potentially surprising to the upside. This is an area we will continue to closely monitor.

US IG bond fund and ETF inflows weakened to $1.65 billion this past week, down from $6.34 billion the prior week. Month-to-date, $137 billion of supply has come to market, and initial forecasts estimated $150-160 billion for the month, slightly above the 5-year average. The primary market is currently 35% ahead of 2020's pace in terms of issuance; however, this is the point where supply started to ramp up last year. Earnings in the fourth quarter recorded the biggest beat on record, and unsurprisingly, analysts expect large growth in earnings and revenues to continue into 1H 2021 as well. ■

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