January 2022

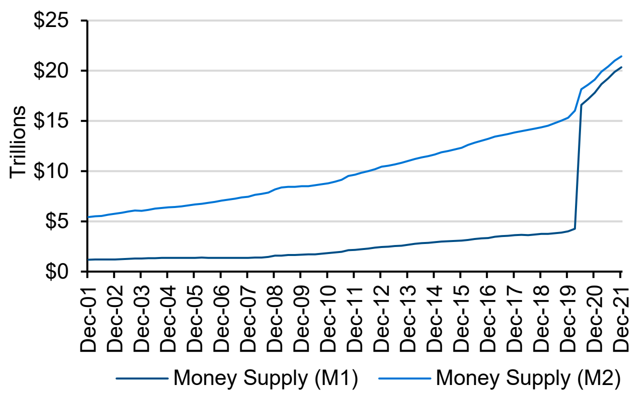
Multi-asset Market Update

Equity market

Quantitative easing is the purchase of securities by central banks to provide liquidity and stimulus to the economy and markets. By its nature, that flow from central banks goes to entities that already hold securities (e.g., Treasury bonds), and the effect is captured in broader measures of money supply. Money supply is typically notated as M1, M2 and M3, going from the narrowest to broadest definition. For example, M1 includes cold, hard cash (literally just bills and coins) and equivalents that can be quickly converted into cash. From there, short-term deposits are added to calculate M2 and long-term deposits then added to calculate M3.

With that tedious reminder out of the way, one of the most remarkable aspects of the pandemic era is the amount of fiscal, rather than purely monetary, stimulus. Fiscal stimulus puts money directly into the hands of consumers and has had a far greater effect on money supply than even the "QE Infinity" period that started in 2013.

Figure 1: US money supply



Source: Bloomberg, data as of December 31, 2021.

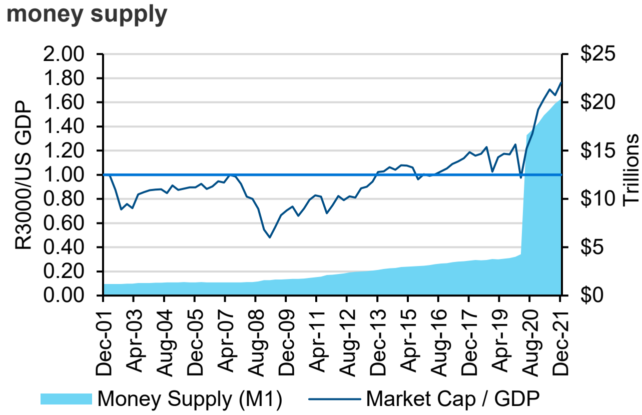
As a result, fiscal and monetary stimulus became the economic and market energy. Wendell Berry decries the consumption of seemingly limitless resources. So, while his words were not directly considering financial resources, we quote him here, recognizing that the implications are somewhat damning of the "cheerful prophets" of economic central planning and discouraging about the potential outcomes from this unprecedented stimulus:

> *The great difficulty, which these cheerful prophets do not acknowledge at all, is that we are trustworthy only so far as we can see. The length of our vision is our moral boundary. Even if these foreseen supplies are limitless, we can use them only within our limits. We can bring the infinite to bear only within the finite bounds of our…circumstance and…understanding.*[1]

So, we have a relatively healthy economy but, according to consumer sentiment surveys, a more pessimistic outlook than before the pandemic. Meanwhile, seemingly limitless financial resources have become available, and we generally understand that those resources can be invested or spent. Business and consumers have done both.

Prices of goods, services and securities are all near or at extremes, and, to some extent, those dynamics fed upon themselves. Markets, for example, rallied in response to the stimulus, stimulus and rising wages reached consumers, and consumers piled much of that money into markets. And on the corporate side, both buybacks and M&A remain very strong.

Figure 2: Ratio of R3000 market cap to GDP and US money supply



Source: Bloomberg, data as of December 31, 2021.

Some of this behavior is rational. With seemingly infinite financial resources sloshing around and less optimism about the future, it is understandable that the boundaries of our vision of what to do with the money may be more limited. The results have included chasing returns (e.g., the well-documented flows into ARKK that are now sitting on losses) and some evidence of a broader inflationary mindset. But our lack of vision of the effects of the stimulus and these behaviors may well be exposing investors to heightened risk.

The challenge for policymakers has become clear, with a March hike as the first of four hikes anticipated this year. Morgan Stanley nicely summarizes the short-term set-up for markets:

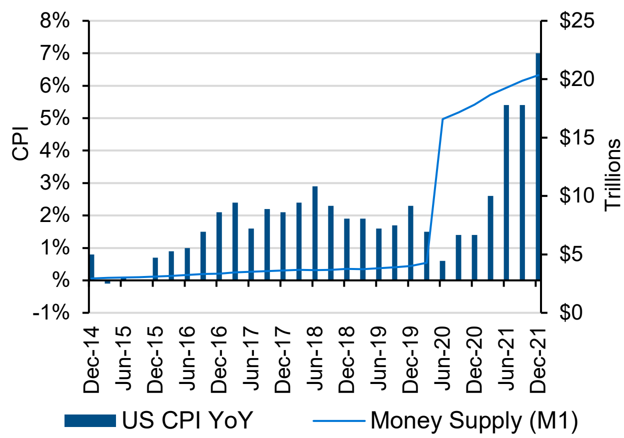
> *With earnings growth back-end loaded, this raises the risk for first half of the year. [The] team finds it very interesting that valuation under the surface of the index remains elevated from a historical standpoint. Forward P/E for the median stock in the S&P 500 remains around 20x, nearly in line with the S&P's cap weighted P/E. Further, nearly 50% of top 500 by market cap constituents trade in the top quartile of their historical 10-year forward P/E levels. That measure is historically elevated and remains around post-covid highs. Moreover, correlation between NDX performance and change in the 10-year real yield is currently -0.5, about as low as it's gotten in this post-covid recession period. This correlation typically remains around -0.5/-0.6 for a couple of weeks before trending higher post declines to these levels. Wilson and team thinks this fits with their narrative that rates will become a less important determinant of equity index returns over the next few weeks and earnings revisions take center stage. That's not to say rates won't matter, just less so.*[2]

While that equity market set-up isn't particularly attractive, neither is it terribly daunting. We remain neutral and are very cautiously looking for opportunities to potentially add equity risk in the short-term. The recent drawdown hasn't yet met our criteria, though, as volatility (while elevated) isn't panicked, nor are investor sentiment and positioning surveys at either extreme.

However, we are becoming more self-conscious about the boundaries of our longer-term vision. For example, rate volatility may have translated into current equity prices, leaving equities less vulnerable to additional rate moves in the short-term as Morgan Stanley suggests. Our concern, though, is how the recent rate volatility and forthcoming policy pivot will ultimately translate to longer-term asset allocation models.

On first order, the removal of policy accommodation would be expected to increase rates. Most traditional asset allocation models (except risk parity) assume a modestly negative correlation between equity and fixed income. This implies continued positive equity returns and a particularly beneficial environment for pension funded status. But as we noted last month, surveys indicate that investors view hawkish central banks as a primary risk, and we believe that we are increasingly late cycle. It is logically challenging that sentiment and the longer-term outlook are becoming bleaker, yet asset allocation models might imply the best times are still ahead of us.

Figure 3: US CPI and money supply



Source: Bloomberg, data as of December 31, 2021.

We are not just concerned with tactical equity positioning, but we are also exploring longer-term aspects of asset allocation in more detail. We hope that our vision becomes clearer as we progress through the tightening cycle, and we look forward to sharing some more imaginative views on protecting asset values and funded status as it does.

Equity volatility

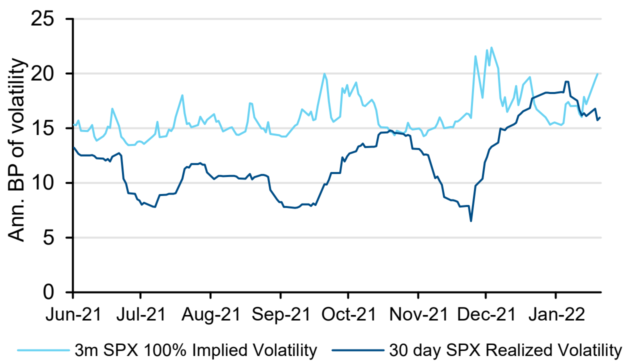
The weakness in high beta and cyclical assets that began last month has now started to feed into the headline spot price of the S&P 500. Although equities had recovered and traded into new all-time highs in the interim surrounding New Year's Day, the index is now in a drawdown of about 7%.[3] The equity volatility space has had fewer dramatic parameter adjustments to make, however, as it has been pricing such events into its probability distributions through much of the pandemic era.

As such, conditions in the options market continue to range trade, structurally somewhat elevated but reasonably contained. Admittedly, one should not make light of a flat and elevated VIX term structure such as we have today with the whole curve closing in the 25-26 range.[3] Back when today's spot was the then all-time high – as recently as last August – VIX term structure was solidly upward sloping and short-dated levels averaged around 20.[3] Therefore, it is fair to conclude that as of January 20, 2022, equity implied volatility is pricing at the higher end of stress of the last two ranges.

Similarly, the current selloff has occurred relatively calmly. Realized volatility has been anchored in the past month to approximately 16%, which averages to about a +/- 1% move in spot per day, a very normal historical level.[3] Additionally, we've seen no day-to-day declines greater than -2% in the past month, which is a dynamic common to option market exacerbated "squeezes."[3] This is not to say that we are forecasting an immediate market recovery; rather, it is to suggest that the stress is not originating in option market feedback loops.

Client trading activity has been elevated as is typical around year end. We've continued to see clients extend hedging and collaring programs, with somewhat greater tolerance for higher upfront premiums to limit trading away upside. We have also observed clients pursue more systematic approaches, whether through product development of outsourced strategies or simply through more structured execution approaches such as trade notional segmentation to smoothen out entry-point risks.

Figure 4: 3m ATM SPX implied volatility and 30 Day SPX realized volatility



Source: Bloomberg, data as of January 20, 2022.

Rates market

Figure 5: US rates environment

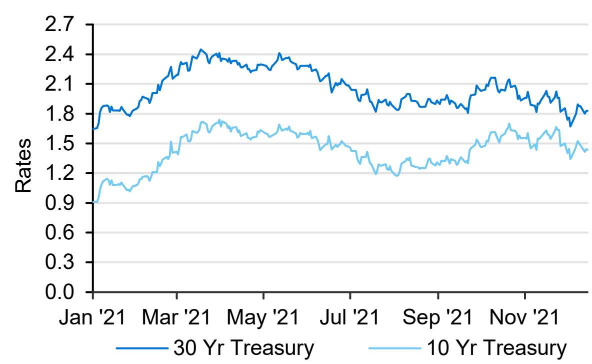
Index	1/18/2022	One month ago	Three months ago	One year ago
Fed Funds Rate	0.25	0.25	0.25	0.25
2y	1.04	0.64	0.40	0.13
5y	1.66	1.17	1.16	0.45
10y	1.87	1.40	1.64	1.09
30y	2.19	1.81	2.08	1.83

Source: Citi, data as of January 18, 2022.

Continued record inflation and increasingly bearish rhetoric from global central banks pushed rates higher to start off the first few weeks of 2022. December ended on a hawkish note, with the Bank of England hiking its benchmark rate 15 basis points (as the market had expected) and the December FOMC meeting proved even more hawkish than anticipated.[3] Not only did Chair Powell announce the widely expected acceleration of asset tapering to $30 billon/month (concluding tapering by the March 2022 meeting), he stated the committee had "preliminary" talks about reducing their balance sheet earlier than it did in the previous cycle.[4] The dot plot also showed a massive pull forward of hike expectations, with the median 2022 plot showing 3 hikes and everyone expecting liftoff at some point in 2022 (compared to just 9 of the eighteen participants in the September meeting).[4] Core PCE inflation expectations were revised upwards to 2.7% year-over-year in 2022 from 2.3% at the previous meeting. [4] And in a widely expected move, the word "transitory" was removed from the accompanying FOMC statement. Rates drifted higher into year end, with the 2-year rate closing out 2021 at 0.73 and the 30-year rate at 1.90.[3]

The first trading day of 2022 showed a sharp repricing of risk (and perhaps adjusting towards the Fed's terminal rate) as the long end sold off 11 basis points, closing above 2% for the first time since the Omicron variant began emerging in late November.[3] Rates moved another leg higher after the December NFP print, despite the disappointing headline number (+199k job growth vs +450k expected).[3] The unemployment rate did tick down 0.3% to 3.9% and average hourly earnings surprised to the upside at 0.6% growth month-over-month. [3] The last time the unemployment rate dropped below 4% was in May of 2018 when the Fed had already hiked 6 times. [3]

Figure 6: US Treasury rates



Source: Bloomberg, data as of January 18, 2022.

The following week saw Chair Powell reinforce the Fed's hawkish stance at his Senate re-nomination hearing. He stated that the Fed's balance sheet is much higher than necessary, and that runoff will happen sooner and more quickly than the last cycle. However, he would only commit to a "later in 2022" timeline for the runoff. These sentiments were echoed later in the month by Fed members Daly and Mester – the balance sheet needs to be reduced, but not until after hiking has commenced.[4] CPI came in an eye-popping 7% headline year-over-year growth, but the market reaction to this was fairly muted as it was right in line with expectations.[3] The DOJ surprised some by discussing the possibility of eventually raising rates to curb growing inflation pressure and keep pace with other global central banks, helping to push the front end higher ahead of the MLK holiday weekend.

Figure 7: Rate volatility

Exp/Tail	1Y	Change	2Y	Change	5Y	Change	10Y	Change	30Y	Change
1M	58.8	4.1	77.9	1.5	85.4	6.6	84.9	5.0	82.4	2.8
3M	66.1	4.7	80.6	3.1	83.9	4.7	82.3	2.7	79.9	1.5
6M	69.9	1.4	79.2	2.5	82.5	5.2	80.2	2.9	77.5	2.3
1Y	80.0	3.0	82.1	3.7	81.4	4.3	78.7	3.0	74.8	2.4
2Y	84.7	5.6	84.6	6.0	80.6	3.4	77.6	3.4	72.0	2.2
3Y	85.4	5.2	84.1	5.3	79.8	3.7	75.5	2.6	69.4	2.3
4Y	82.5	4.1	80.2	3.4	77.5	2.1	73.5	2.1	66.8	1.7
5Y	79.7	2.7	78.0	2.0	75.8	1.9	71.8	1.7	64.6	1.6
7Y	75.8	1.5	73.8	0.8	71.8	1.0	68.3	0.9	60.9	1.1
10Y	69.6	1.1	68.3	0.1	66.5	0.1	63.6	0.4	56.1	0.4

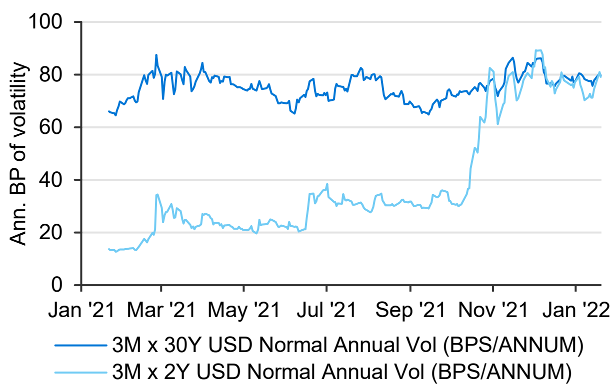
Source: Citi, data as of January 18, 2022.

As of January 18, 2022, we finally saw the 2-year Treasury rate close above 1% for the first time since February 2020, as markets are now discussing a possibility of a 50 basis point hike at the March FOMC meeting (many prominent investors - most notably Bill Ackman this week – have been advocating for a 50 basis point hike so the Fed will not fall behind the curve).[3] Fed funds futures are now almost entirely pricing in 4 hikes for this year.[3] While the 2-year rate did reach 1.07, the selloff has subsided and it now hovers around 1%, while the 30-year Treasury rate is at 2.10.[3] The FOMC meets next week and the markets will be looking for any sort of guidance heading into what should be a very eventful quarterly meeting in March.

Rates volatility

Rate volatility has moved somewhat higher as rates have hit new local highs but still off the highs seen in early December. Gamma hit the highs of the year in late November and early December as the Omicron variant started to emerge, while realized volatility hit multi-year highs, ignoring March of 2020.

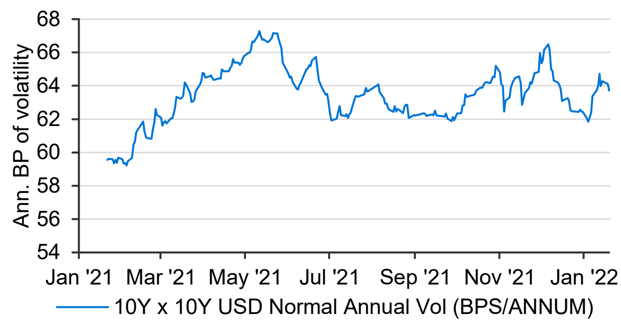
Figure 8: Volatility spreads



Source: Citi, data as of January 19, 2022.

The FOMC meeting proved to be a non-event as far as rate volatility was concerned. Volatility had dropped fairly precipitously ahead of the meeting and barely moved afterward. There was a small pop in volatility during Christmas week when front end rates hit a new high, but that move was faded even as short end rates drifted higher into year end. 3-month expiries across all tails ended the year at 80abpv (5bps/day implied movement), which is 5-10 annuals off the highs of early December.[3] Longer dated volatility moved to its lowest levels since January 2021 as we approached year end. The lower right typically cheapens in Q1 as there is a cyclical supply of callable Formosa issuance hitting the market, which is the supplier of long dated vega. The flattening of the long end of the curve pushed longer dated forwards lower, which leads to higher rates of old issuance getting called, further increasing the supply of new issuance.

Figure 9: 10-year by 10-year volatility



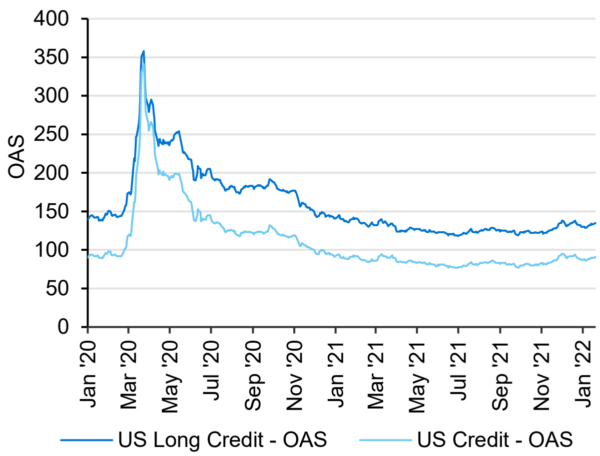
Source: Citi, data as of January 19, 2022.

As rates moved higher to start off 2022, gamma followed suit, although the moves were much more muted than what we have seen recently in selloffs. 3m2y volatility, which tends to trade directionally with rates is at 81abpv as of January 18, 2022.[3] The last time 3m2y was at this level was on December 21, 2021 when the 2-year treasury rate was 35 basis points lower. [3] However, the big story in rate volatility for 2022 thus far has been longer dated vega. After plummeting 4-5 annuals in December, longer dated volatility has recovered about 2 annuals, even with a steady supply of over $7 billon notional in callable issuance over the first few weeks of January.[3] The market easily digested this supply with buying interest from fast money accounts looking to initiate calendar spreads and forward vol trades.

Credit market

In January, risk assets have come under pressure largely on the back of a sharp move higher in both nominal and real yields. As of January 19th, the Bloomberg Market Credit Index and Bloomberg Long Credit Index were now 3 and 5 basis points wider on the year, with spreads hovering around 90 and 135 basis points respectively.[3] The fastest pace of inflation in 40 years and the evolution of monetary policy in response to such price pressures remain prominent concerns for investors in the new year.

Figure 10: US credit spreads



Source: Bloomberg, data as of January 18, 2022.

Economic activity in the US bounced back in the fourth quarter of 2021 with real-time GDP trackers trending towards a robust growth print. While the impact of the spread of the Omicron variant has been felt in the data, the slowdown has been less severe than previous waves as fewer lockdowns have been instituted. On the other hand, the labor force shortage, supply bottlenecks and elevated inflation look poised to serve as headwinds to growth in Q1. The seasonally adjusted US labor force participation rate came in at 61.9% per the latest BLS release, still well below pre-COVID levels.[3] The latest CPI print (headline and core CPI increased 7% and 5.5% y/y respectively) has jolted markets and has reinforced the general consensus that the Fed is behind the curve on monetary policy tightening.[3] At the December FOMC meeting, the Fed signaled its intention to take price pressures more seriously and revised its inflation forecasts higher for the years 2021 – 2023. While the Fed's December dot plot pointed to three hikes in 2022, market rate hike expectations have repriced significantly this month and are now pricing in 4 hikes this year, with the first 25 basis points hike fully priced for March.[3] Policymakers have leaned into this more hawkish view, not only agreeing with the sentiment that the economy can handle 100 basis points of rate hikes over the course of 2022, but the Fed minutes also revealed that the central bank is considering shrinking its balance sheet this year.[5] We continue to expect an end to quantitative easing and an immediate start to the rate hiking cycle in March.

Supply has continued to surprise to the upside in January, with issuance eclipsing $100 billion month to date. The elevated pace of new issuance over the last few months is in line with the hawkish shift by the Fed. Companies with financing needs have accelerated their plans to take advantage of lower borrowing costs ahead of a possible Fed rate hike in 2022. We continue to advocate for a cautious stance on investment grade credit despite a constructive view on macroeconomic fundamentals as we believe that relatively tight valuations fail to compensate investors for rate hike uncertainty. ■

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2. Morgan Stanley. (2022, January 18). Weekly Warm-up: Earnings Take Center Stage with Valuation. https://ny.matrix.ms.com/eqr/article/webapp/b47697dc-7471-11ec-9b8e-727203691ea4?ch=apsh
3. Bloomberg
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