

September 2021

Multi-asset Market Update

Equity market

Last week, we had a discussion with some of our esteemed colleagues on our Active Fixed Income team about the ubiquitous industry topic of better utilizing data for fundamental active decision making in the context of what I'd describe as markets' Ricky Bobby mindset: "if you're not first, you're last." There's certainly an edge to processing new data and information more quickly than other alpha-oriented competitors. However, examples like Tuesday's anxiously awaited CPI release cast doubt on whether that edge should be cutting or perhaps farther back. If you were first to buy at the release, perhaps you made money, or perhaps by 8:30 am CT it was just a tie? Or perhaps by being first you were actually last by 10:00 am CT?

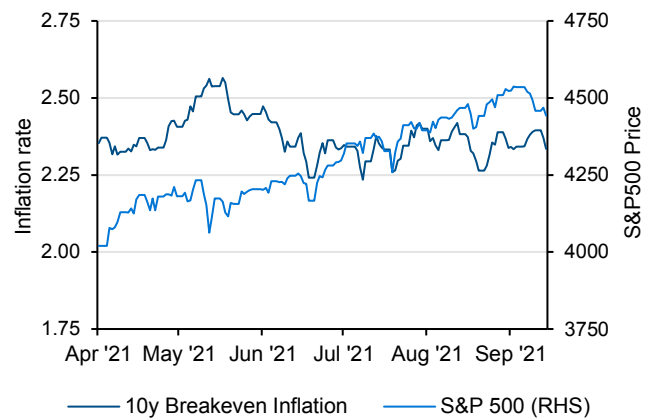
Figure 1 – S&P 500 E-Mini Index



Source: Bloomberg, data as of September 14, 2021.

Before we lose readers unfamiliar with the cinematic brilliance of Talladega Nights, our focus here isn't on the well-known speed with which algorithmic trading can move markets, but rather that in many cases the interpretation of key data releases isn't obvious. That certainly seems to be the case for markets' inflation response lately. The S&P 500 has continued to climb while breakevens grind sideways, despite the very noticeable increase in inflation commentary and possible concerns.

Figure 2: Breakeven inflation vs. S&P 500 performance



Source: Bloomberg, data as of September 14, 2021.

The incongruity between our qualitative assessment of increased inflation concerns and the lack of commensurate market pricing may very well owe to a more seismic shift in the composition and complexity of economic activity, with monthly data releases representing only small tremors in that process. Our own debates on inflation are shifting in this way. One of our asset allocation colleagues in London summarized the situation and our views well, and this month we borrow his Oxford-educated eloquence to compensate for our own reliance on Will Ferrell references: Beige, but not bland.

Eight times a year, the Federal Reserve produces a narrative account of developments in the US economy. In an era of big data and quantitative science, it is an unashamedly anecdotal exercise put together after rounds of interviews with business contacts, economists and market experts. Reports from each of the 12 districts are collated into a publication known as the Beige book.

Beige is a color with a bad reputation: we tend to think of beige slippers or corduroy trousers. Beige is not typically a color to set hearts racing. But in this instance, it is most definitely not boring. The report contained anecdotes of shortages everywhere and painted a picture of an

economic recovery stuttering through a supply shock. The growth/inflation mix doesn't look particularly healthy. We're told that "economic growth downshifted slightly" in an environment of "pervasive resource shortages."¹

The growing concern is that shortages are becoming increasingly apparent in the labor market. Even when accounting for compositional effects, wage growth is moving higher. We had another data point this week with the Atlanta Fed wage tracker nudging higher, and more stories of companies offering incentives such as subsidized college tuition to their workforce.

Several months ago, there were lots of theories that the labor market would improve in the autumn with the end of additional unemployment insurance and the end of home schooling. But, there are growing suggestions that participation will be structurally lower because of factors such as early retirement, skills mismatch and changing household preferences. It is impossible to know whether that last effect is meaningful, but Bloomberg's Lisa Abramowicz put it really nicely when she wrote: "It turns out you can't just stop and restart an economy with nothing changing. People adapt to their realities, and the result is a mass rethinking about their relationship to work — where and how they want to live, what they want to do and how much money they need to make."¹

The obvious question that follows from this is "so what?" The markets have been remarkably sanguine about this so far: 5y5y US inflation breakevens have done nothing since February, and anyone strategically reducing duration risk in anticipation of this threat over the last six months has lost money. US Treasury yields are down around 50 basis points since March. But we're thinking seriously about whether the focus is set to shift from soft labor market data to firming inflation expectations. In that event, it would start to pose some fundamental challenges to duration assets and also raise awkward questions about margins in the months ahead.¹

Equity volatility

Over the past month, US equities and volatility conditions are both relatively unchanged. Equity option implied volatility is cyclically elevated outright and in its various parameters like skew (puts vs calls) and term structure (short vs long dated maturities). Simultaneously, however, subsequently realized volatility continues to decline and remain below what is implied in the option market.

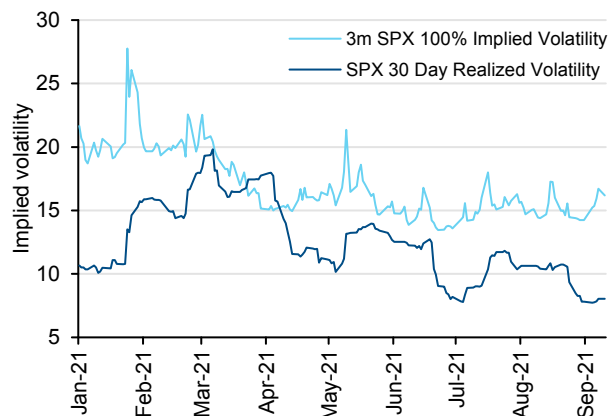
Despite neutral market performance, the entire volatility surface, including one year and further regions, is a full point higher. One to three-month maturities are 15-17%, six-month around 18%, and one-year and out north of 20%.¹ These can surely escalate and are admittedly towards the lower side of the COVID-19 era range, but looking across longer term market data, there is plenty of room for risk premia compression.

Therefore, we still believe implied volatility is "rich," and pending dramatically different underlying conditions in realized market movements, the option market is likely to continue contributing to locally stabilizing market conditions (to a certain point). This is due to a reasonable amount of stress already "priced in." Additionally, we can proxy describing how such dynamics play out by referring to the mean-reverting liquidity provided by dealer and volatility trader delta hedging, combined with a lack of volatility sellers.

Nonetheless, there do remain some floating parameters in the equity volatility surface that have been responsive to risk-on and risk-off in the last few months. These most responsive regions on the volatility surface are the very near-dated (three months or less) and the at-the-money.

We have seen a substantial pickup in client preparations for year-end and 2022 planning for hedging and overlay exposures. Considering the richness we describe and the generally medium to longer dated outlooks of our clients, we continue to stress that favorable structures in such an environment are to be found in relative value structuring of risk and return tradeoffs.

Figure 3: S&P 500 implied volatility



Source: Bloomberg, data as of September 14, 2021.

Rates market

Figure 4 - US rates environment

Index	09/13/2021	One month ago	Three months ago	One year ago
Fed Funds Rate	0.25	0.25	0.25	0.25
2y	0.21	0.21	0.15	0.14
5y	0.80	0.77	0.74	0.26
10y	1.33	1.28	1.45	0.67
30y	1.90	1.93	2.14	1.41

Source: Citi, data as of September 13, 2021.

The rates market spent the last month in the summer doldrums with the 10-year and 30-year treasury rates both staying in a tight 13 basis point range and volumes at 50-60% of their 30-day trading averages. The curve did flatten

with the front end and belly basically unchanged and the long end rallying, fueled by continued concerns over the delta variant and some geopolitical risk around the US's withdrawal from Afghanistan. The 5s30s and 10s30s curves are at their flattest levels in over a year.¹

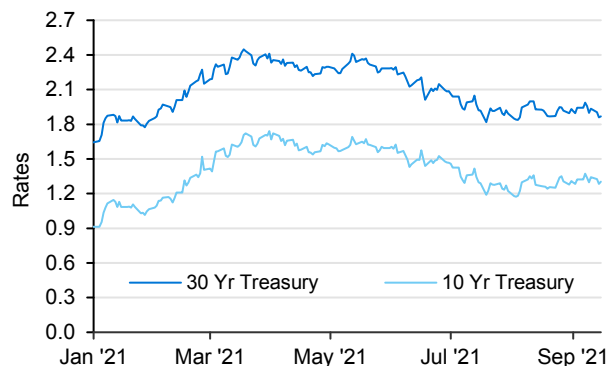
The release of the FOMC minutes in mid-August led to a brief knee jerk rally as they seemed to indicate disagreement around the timing of Fed tapering announcements even though that news came as little surprise to anyone. The new 20-year auction unexpectedly came in on the screws after tailing for the past few auctions. Fed Chair Powell's Jackson Hole speech towards the end of the month was essentially a non-event. The curve did bull steepen somewhat as he emphasized that the timing and pace of any upcoming tapering is in no way a signal or indicator about timing for raising rates, which will have a "substantially more stringent test." There was a small selloff the afternoon of August month end that some dealers interpreted as market participants setting up shorts for the upcoming month. The 30-year treasury rate closed out August at 1.93.¹

The August month end selloff was short lived as the long end grinded lower on the back of steeper unwinds ahead of the employment report. The August jobs report did read as a bit of a disappointment, with +235k new jobs created, well short of the +733k expectation. This miss was largely attributed to the disappointing numbers in leisure and hospitality hiring. Despite the low job growth numbers, the unemployment rate dropped 0.2% to 5.2% as the labor force participation rate remained steady and average hourly earnings surprised to the upside.¹ Some interpreted those latter beats as a hawkish indicator that there could be labor shortages ahead – higher wages have not been incentivizing more labor participants to enter the market. That is one possible explanation behind the bear steepening the treasury curve experienced in the wake of the jobs report.

The selloff continued after the long Labor Day weekend as the 30-year rate almost rose above 2% for the first time in nearly a month, peaking at 1.997 last Tuesday. The 30-year rate dropped nearly 10 basis points over the next two days, driven by more hawkish than expected comments from the ECB (and the lack of a strong signal around their tapering)

and a strong 30-year treasury reopening that came nearly 2 basis points through expectations. The backend rally continued this week on CPI prints that fell short of expectation. The month-over-month headline print came in at +0.3% while core CPI rose 0.1%, the lowest levels since January and February of this year, respectively. The 30-year bond closed out Tuesday, September 14 at 1.85. As of now all eyes on the rate market are focused on the FOMC meeting next week.

Figure 5: US Treasury rates



Source: Bloomberg, data as of September 14, 2021.

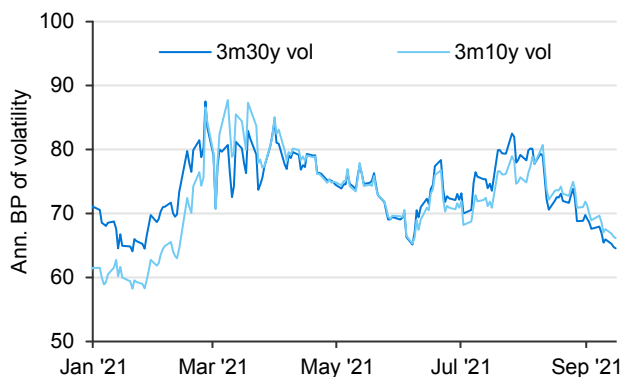
Rates volatility

Rates staying in a tight range and realized volatility plummeting over the past month has massively cheapened rate gamma, particularly on 5-year and longer tails. Gamma was bid up going into August's Jackson Hole summit, fueled by rising rates and strangle buying in options on treasury futures on the exchange. But some started to fade that move the day before. By the afternoon prior to the meeting, TY straddles were priced in to have a 4-4.5 basis point move during the speech. Even with some gamma selling prior, in the wake of Powell's speech gamma was hit down 1-5 annuals, with the biggest drops coming in longer tails. This selling came from both real money and fast money accounts in at-the-money strikes and in strangles. In skew high strike payers dropped prior to Jackson Hole as everyone began discounting any sort of exaggerated selloff after the event passed.¹

Figure 6: Rate volatility

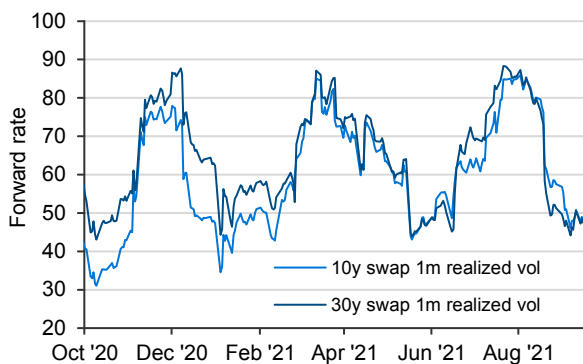
Exp/Tail	1Y	Change	2Y	Change	5Y	Change	10Y	Change	30Y	Change
1M	12.6	-1.8	21.8	-4.3	51.2	-9.1	64.5	-8.8	62.9	-9.1
3M	16.4	-1.0	28.8	-1.6	55.6	-6.9	66.4	-7.4	64.8	-7.4
6M	21.4	-1.5	36.4	-1.9	58.5	-6.8	67.7	-5.9	66.0	-6.3
1Y	36.1	-0.8	48.6	-1.5	64.2	-3.7	69.1	-3.1	66.8	-3.7
2Y	59.6	-0.1	64.5	-0.2	68.9	-2.2	69.6	-1.9	65.1	-3.0
3Y	70.1	0.4	71.0	1.0	70.6	-0.5	69.4	-1.1	63.9	-2.4
4Y	72.7	0.1	72.2	0.4	71.0	0.4	68.7	-0.4	62.6	-1.5
5Y	72.5	0.1	72.5	0.6	70.8	0.8	68.1	0.1	61.2	-1.1
7Y	70.4	0.4	70.5	0.1	69.1	0.5	65.7	-0.1	59.0	-0.4
10Y	67.4	0.8	66.4	0.2	64.7	0.1	62.2	-0.2	55.3	-0.2

Source: Citibank, data as of September 14, 2021.

Figure 7: Annual volatility

Source: Citi, data as of September 14, 2021.

September started with a slight move higher in gamma ahead of ADP and payroll numbers but quickly reversed with the low realized move after the ADP release on Wednesday. Ahead of the payroll numbers options on TY contracts were implying a 4-4.5 basis point move on the day, identical to the implied move on Jackson Hole. The disappointing payroll number caused a 2-3 annual drop in 1m expiries, centered around 5y to 10y tails. There were no notable changes in skew as bearish payer ladders and spreads still remain popular – particularly in 3m5y payer flies targeting 30-60 basis point selloffs and 2y10y 100 basis point selloffs.¹

Figure 8: Volatility spreads

Source: Citi, data as of September 14, 2021.

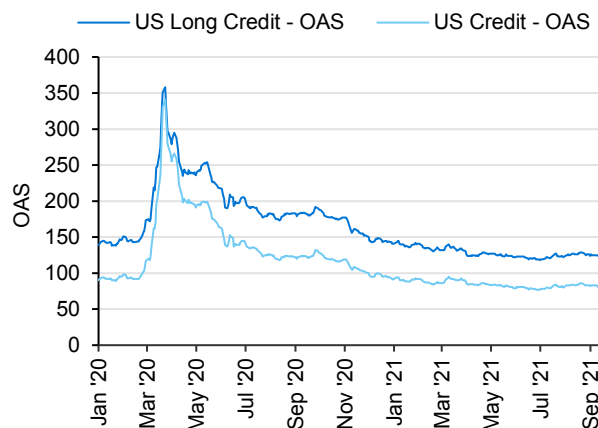
Post Labor Day was more of the same dynamic we have seen over the past few months. Gamma popped up on the selloff on the return from the long weekend. But once rates started coming back down and delivered volatility slowed, that move was quickly faded by fast money sellers. The biggest drop came on the rally driven by the ECB comments and the strength of the 30-year auction which came through almost 2 basis points.¹

Rate volatility markets did not anticipate much movement with the CPI release, as 1-day options were initially implying a 4 basis point move between the prior night's close and the 11:00 am ET swap fixing. Longer dated vega in the lower right took a bit of a hit on high callable issuance

and more issuance expected in Q4. But any weakness in the lower right is met with calendar and forward volatility trades which has helped stabilize volatility on 30-year tails. Most dealers think vega could move a bit lower from here, but the consensus seems to be that we are close to reaching a floor in how low it can go in the near term.¹

Credit market

The first half of September marked the return of credit outperformance as both the Bloomberg Market Credit and Bloomberg Long Credit now trade at the 3rd percentile after hovering around the 6th percentile at the end of August. A major driver of the rebound in credit spreads can be linked to the recovery in oil prices. As such, energy has moderately outperformed over the past month, while most of liquid A-rated names have lagged. Investor concerns related to the Fed's tapering decision have declined, as focus has shifted to COVID-19 variants and the Bloomberg US Long Credit Index OAS currently hovers around 124, which is 17 tighter on the year.¹

Figure 9: US credit spreads

Source: Bloomberg, data as of September 14, 2021.

Turning to macro fundamentals, GDP forecasts for the second half of the year have declined as ongoing capacity constraints, paired with the Delta variant, have negatively impacted consumer sentiment. Further headwinds to growth may also be on the horizon. Extended benefits are set to expire this month and vaccine passports required by a growing number of organizations could result in an additional 5-7 million people willing to quit their job in lieu of getting vaccinated, per a poll conducted by Goldman Sachs. With that said, inventory restocking and a full consumer spending recovery should eventually provide a meaningful boost to growth, and as such, 2022 growth forecasts continue to rise, even as the near-term growth outlook becomes less optimistic.

From a technicals perspective, the overarching trend for most of the summer has been the outperformance of higher quality issuers in the investment grade market. This trend was reversed in August, as the demand for new deals was

fairly tepid and down in quality outperformed. Issuance has picked up in September, as we have already seen \$103 billion come to market, with an additional \$17 billion expected.¹ This deluge of issuance brings us to \$1,058 billion in new supply on the year. Both domestic and foreign inflows have stabilized, providing a tailwind to the market throughout September. Demand remains particularly elevated throughout Asia.¹

Finally, 2Q earnings continues to impress, not only on beats relative to analyst expectations, but on historical

metrics as well. However, ratings agencies have slowed the pace of upgrades at both a US and global level. The trend of upgrades relative to downgrades has decreased from 40% to 15%. With that said, we've had massive EPS surprises due to the analyst community being seemingly too bearish for the past 18 months. This dynamic results in an opaque outlook for Q3 earnings. With a busy political calendar, rumblings of increased corporate and capital gains taxes, as well as the Fed tapering timeline drawing nearer, our outlook remains moderately bearish for the near term. ■

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