US Rates Viewpoint

Asymmetric outcomes favor higher rates

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Outcomes appear asymmetric for higher rates

We expect higher US long-end rates over the next several months and suggest ways to position for a range of potential outcomes. We see significant asymmetry of outcomes for US rates while the Fed remains committed to holding rates at zero (ZLB). Over a 6m-1y horizon our most bearish scenario implies about 1.75% 10y and 150bp for the 2s10s curve, while in the downside scenario we would expect 10y to potentially reach 35bp with the 2s10s curve falling to around 25bp.

Two key factors: vaccine & stimulus

Our base case is that we see longer-dated rates rise in the latter part of this year or early part of '21 driven by meaningful progress on the coronavirus vaccine, a path out of permanent social distancing, and modestly supportive fiscal policy. In a scenario with an earlier than expected vaccine, additional fiscal stimulus could compound a rise in rates, but a smaller fiscal stimulus or none at all would not offset the positive news of a vaccine. In contrast, a later or less effective vaccine should make stimulus more important for rates; lack of sufficient fiscal support would reinforce a rate decline in this scenario as would Fed purchases. We take a glass half full approach to vaccine timing.

Fed purchases may limit the asymmetry

While the Fed will likely be on hold for years, there is more uncertainty around their asset purchases and we see the Fed as a risk to the asymmetric outlook for 10y rates. The Fed could buy more USTs or twist to longer duration if the economic outlook worsens, especially given their new commitment to 2% average inflation, which could intensify a rally. The Fed could also increase purchases if rates rise in a disorderly fashion, limiting a selloff. We do not think the Fed will target an outright level of rates, but may fight an "unhealthy" or disorderly rise to 1% or higher with increased UST buying to limit an overshoot in tightening of financial conditions.

Spreads, front end & vol: focus on Fed, supply and levels

We also offer views on how these themes extend to spreads, front-end, & vol. In spreads, we favor a widening view at the 30Y point due to the potential for increased Fed purchases and reduced scope for large fiscal stimulus. At the front end, rates will remain pegged with Fed at zero while limited supply should support UST & money market richening vs OIS. In vol, a gamma event is likely tied to risk-on scenarios and U/V-shape repricing rather than risk-off. We believe that risk-on scenarios are supportive for volatility on the right side of the grid while downside scenarios are likely to continue to put downward pressure on the volatility grid.

Trade recommendations: hedges for rate outcomes

For our base case of higher rates we favor buying a 1y30y payer spread financed by selling 1y5y payers which incorporates our Fed-on-hold baseline. **To hedge against lower rates,** we favor buying 5m30y receiver ladders financed by selling 5m5y receivers which fades the potential for negative rates. We like wider 30y spreads as monetary policy may need to step up if fiscal stimulus wanes or if rates rise abruptly.

We offer updated thoughts on the range of outcomes for US rate in the months ahead. We see a significant asymmetry of outcomes for US rates in a scenario where the Fed retains its commitment to the ZLB. We expect higher long-end rates over the next several months and suggest ways to position for a range of potential outcomes but acknowledge US election uncertainty / potential for a contested election outcome are key risks to our baseline. We also use our economist's baseline + positive and negative macro scenarios to consider a range for US rates. For trades, we recommend two options trades to hedge against meaningful rate moves and favor wider 30Y spreads.

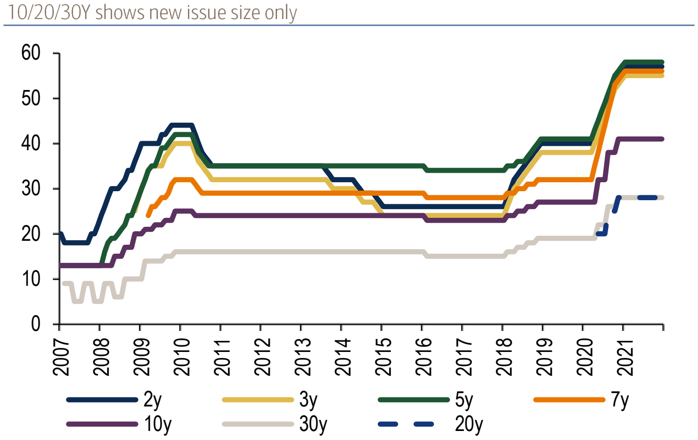
Defining the range of outcomes

Our economists lay out scenarios around their baseline for: (1) a positive narrative where a coronavirus vaccine is available earlier, releasing pent-up services spending and business investment; and (2) a negative narrative where further fiscal stimulus fails to be passed, leaving a decline in purchasing power and strain on state and local governments. Here we try to understand the implications of these scenarios for rates, curve, spreads, the front end and the volatility outlook.

From an economic standpoint the vaccine upside (risk-on) and stimulus downside (risk-off) may be on a relative equal footing but for the rates market we believe the former is a first order effect while the latter is likely to be second order. Vaccine approval will allow for future growth expectations to more confidently re-price higher even if a vaccine is not widely available until Q2 '21 as many of our research colleagues expect. Stimulus scenarios impact the outlook in two distinct ways: (1) by the support they may provide to the macro backdrop; and (2) their implications for the supply/demand of Treasuries. While we find the former a relevant albeit slow-moving process, we see the supply impact as likely limited. Given the recent increase of coupon issuance (see Chart 1 and Table 1), we expect bill supply to absorb the near-term fluctuations in issuance needs (see Bill supply & funding: stimulus simulations). This is important for the front end but should have a more limited impact at the back end of the curve.

Chart 1: Coupon auction sizes have increased substantially ($bn)

10/20/30Y shows new issue size only



Source: BofA Global Research, Treasury

Table 1: Additional stimulus can be met through bill issuance ($bn)

	Actual		Net Coupons	Bill Add On	TGA Change	Net Bills
H1 2020			567	166	1318	2663
	Stimulus	**Financing Need**	**Net Coupons**	**Bill Add On**	**TGA Change**	**Bill Need**
H2 2020	0	1325	1161	126	-722	-683
	1500	2076	1161	126	-722	67
	2500	2576	1161	126	-722	567
H1 2021	0	841	1334	14	-400	-906
	1500	1183	1334	14	-400	-565
	2500	1411	1334	14	-400	-337

Source: BofA Global Research, Treasury

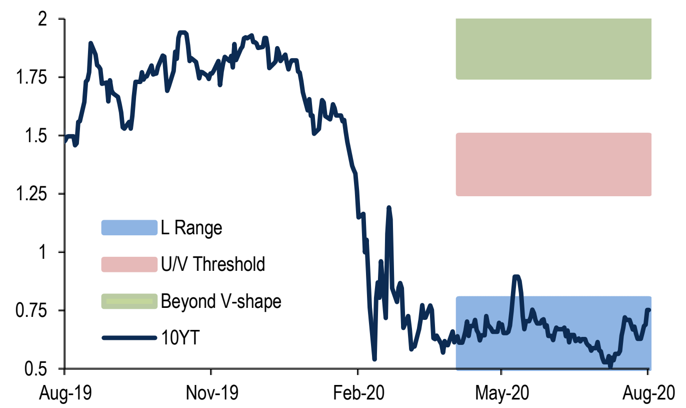
As a result, fiscal stimulus should be more important for its impact on the macro outlook rather than the supply of Treasuries it generates. We see the impact of fiscal stimulus as a second order effect along the following lines:

- In a scenario with a better vaccine outcome, fiscal stimulus would likely compound any rate rise and help steepen the curve via its impact on the macro outlook
- In a scenario with a disappointing vaccine outcome, fiscal stimulus would only partially mitigate a rate rally

When we look at the range of outcomes in rates space implied by vaccine and stimulus scenarios, we set the bearish extreme as best-case vaccine outcome plus fiscal stimulus surprise and the bullish extreme as bad vaccine news, limited fiscal stimulus, & more monetary stimulus. In doing so, we can map these scenarios to the L/U/V recovery scenarios discussed in [Paths to higher yields](), and understand how they may exacerbate the L-shape downside and V-shape upside.

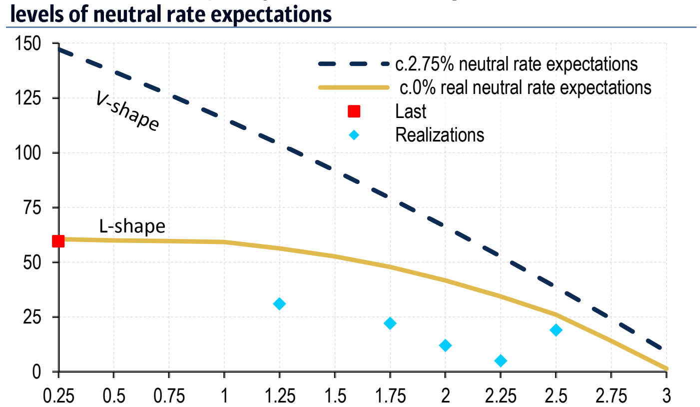
It is significant to note that while our L/U/V recovery scenarios are predicated on a repricing of rates driven by fundamentals, a repricing predicated on vaccine and stimulus scenarios is driven mostly by expectations for how the economy will evolve (the type of repricing we described in [Roadmap to tantrums]()). Both shocks are likely to take time to show up in hard macroeconomic data but their repricing in rates space should be much more immediate. It makes sense therefore to try to put these expectations-led repricing processes in the context of the fundamental scenarios.

Chart 2: L/U/V-recovery ranges and the 10yT yield



Source: BofA Global Research, Bloomberg

Chart 3: 2s10s curve path (y-axis) vs. Fed easing (x-axis) for different levels of neutral rate expectations



Source: BofA Global Research

Rate ranges from L to V: the downs and ups for rates

Downside: 10y remains in 50bp-80bp range

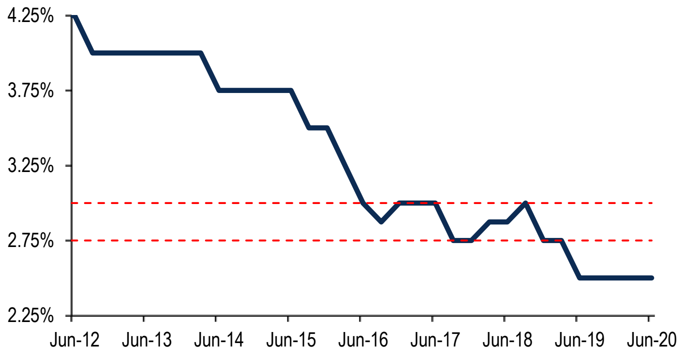
Our L-shape downside scenario corresponds to extending current conditions and rates ranges for longer (see Chart 2). We arrived at the current 50-80bp by looking at the likely dynamic of the 2s10s curve in a scenario where the Fed cuts rates to zero (ZLB) while neutral rate expectations continue to drift lower (see Chart 3), which caps the bull steepening potential we have seen historically during Fed easing periods. This analysis suggests a fair value for the 2s10s curve around 30-60bp, which with 2yT anchored around 20bp under a Fed at the ZLB implies 50-80bp for 10yT yields.

While the Fed stays committed to the ZLB, there is a floor on the repricing of downside scenarios from the recent range (see [Waning support for USTs as a hedge]()). In [A likely floor for the curve under YCC]() we argued that the natural aversion towards inverted curves, particularly with the Fed at the ZLB, and the analysis of yield differentials relative to other major developed market curve justified a floor for the 2s10s curve around 25-30bp. In a risk-off scenario where 2yT yields collapse to IOER (currently 10bp) this curve floor implies a 35-40bp range for 10yT yields, and c.90-100bp for 30yT.

Upside scenarios: higher neutral rates and 10y near 1.75%

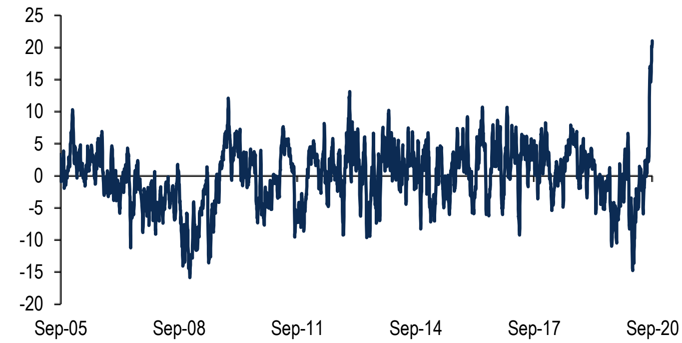
Our V-shape scenario is predicated on a repricing of neutral rate (NR) expectations from what we believe are current expectations of 0% real (1.75-2% nominal) towards the low-end of the 2.75-3% range where neutral repricing expectations found consolidation between 2016 and early-2019 (see Chart 4). This implies an upgrade of the macro fundamentals, particularly inflation fundamentals, to the type of levels that prevailed in late-2018/early-2019 prior to the pickup in trade tensions (growth slightly above potential, core PCE at or just shy of 2%, and a positive labor market outlook).

Chart 4: Fed median of the longer run dots (%) as a proxy for neutral rate expectations



Source: BofA Global Research

Chart 5: Event days priced into 3m10y volatility in excess of the 3m vol interpolated from 1m and 6m vol



Source: BofA Global Research

In this scenario we expect 2s10s to steepen towards c.150bp (see Chart 3). With the Fed likely still on hold anchoring the 2yT around 20bp, this implies 10yT around 1.75%. As we noted before, a process of fundamental repricing should be more slow-moving, and we see the most likely horizon for the realization of this type of scenario in 2H21.

Although our V-shape scenario already contains expectations for resolution of the current health crisis, the macro expectations that may be generated under our economists vaccine upside scenario (4.5% growth in 2021, with significant upgrade to the labor market outlook and slight upside to inflation) are meaningfully higher than the fundamentals that underpin our V-shape scenario.

The vaccine upside scenario therefore frontloads the risks associated to these higher yield scenarios, opening the door for a tantrum-type repricing, but it is less clear if they upgrade the upside in yields under these bearish scenarios. In Roadmap to tantrums we argued that under lower current low neutral rates expectations the threshold for a tantrum type move is significantly lower than in past events, roughly 50-70bp under a 2% nominal neutral rate (historically a tantrum move corresponds to 25-35% of NR).

From the top end of the 50-80bp range for 10yT that is consistent with the Fed at the ZLB under 0% real neutral rate expectations, this type of repricing can push 10yT yields into 1.3-1.5% for 10yT.

A strong stimulus program, which we argued recently would be more likely under a democratic sweep scenario for the upcoming US elections (see An election during a pandemic) may compound these expectations and drive yields slightly higher, but we believe that it is unlikely to see a meaningful overshoot of the 1.75% level that is justified by a fundamentals repricing (V-shape scenario above) under an expectations driven repricing. Of course, the election outcome could also pose downside risks to the rate outlook via elevated uncertainty and contested election risks. US election risk volatility is at unprecedented levels relative to the recent history (Chart 5). This likely caps the potential for a material repricing of these V-shape scenarios near-term, pushing back the time of these scenarios into late-4Q20 or early '21.

Asymmetry of outcomes favor higher rates

If there is one thing that should be evident from the above discussion is that there is a significant asymmetry of outcomes for US rates in a scenario where the Fed its commitment to the ZLB.

This asymmetry is illustrated in Table 2: on a 6m-1y horizon: our limiting scenario on the bearish side implies c.175bp or 10y and 150bp for the 2s10s curve, while on the other side of the spectrum of outcomes we have 10yT at c.35bp and a 2s10s curve around 25bp. While the former implies an 110bp selloff from current levels and a bias towards bear steepeners, the latter implied a 30bp rally from current levels and a bias towards bull flatteners, mostly in the 5s30s sector of the curve.

Table 2: Expectations for 6-12m horizon for the limiting scenarios in the range of likely outcomes

	10y	30y	2s10s	Vol bias	30y Spread Bias
Upside	150-175bp	225-250bp	125-150bp	higher	tighter
Downside	35-40bp	90-100bp	25-30bp	lower	wider

Source: BofA Global Research

Our base case is for longer-dated rates to rise in the latter part of this year or early '21 driven by a more positive narrative that results from meaningful progress on a coronavirus vaccine, a path out of permanent social distancing, and modestly supportive fiscal policy. Our US rates forecasts reflect this view, with the 10Y yield expected to rise to 1% by year end and modestly above these levels in the early part of next year. The curve will mechanically steepen as the Fed remains firmly on hold and we expect that the rate rise will be led by real rates. In recent months the beta between nominals and real rates has increased towards one, and we recently turned neutral on breakevens (see here) and think near-term they will be less directional with rates overall.

In spreads, our base case is a widening in 30Y spreads near-term. We now see scope for a significant spread widening move in a risk-off scenario if the Fed reengages in QE5 focused in the long end. In addition there is potential for increased Fed QE in a "taper tantrum" scenario in which rates rise rapidly and tighten financial conditions, potentially on a vaccine announcement. For these reasons, combined with the reduced threat of increased Treasury coupons, we switch our tightening view to a widening view in the 30y and 10y spread sectors (detail here).

At the front end, the Fed will keep their target anchored at zero for years which makes supply and regulatory factors more important. We expect that short-dated Treasuries and money market rates will continue to richen vs OIS due to a limited supply backdrop. Assuming $1.5tn in fiscal stimulus this fall we expect only roughly $250bn in bill supply, which would be a material decline from the recent issuance pace. If fiscal stimulus fails to materialize and the Treasury general account falls to $1tn as we expect net bill supply through end Dec could fall $500bn (detail here). We think that limited Treasury supply and a relatively benign year end should keep funding rates low and richening vs OIS.

In rates volatility, the opportunity for a gamma event is more likely tied to risk-on scenarios and U/V-shape repricing rather than risk-off scenarios. Broadly we believe:

- Risk on scenarios are supportive for volatility on the right side of the grid, particularly scenarios for V-shape repricing which are predicated on a significant normalization of longer term inflation expectations (with neutral rate expectations converging to 2.75-3% under these scenarios).
- Downside scenarios or L-shape recovery are likely to continue to put downward pressure on the volatility grid and drive a process of Europeanization of the US vol grid. At stake in these scenarios is the potential for rates to reflect risk-off with the Fed at zero under and ultra-accommodative and a curve as flat as it is currently, which is likely to cap the potential for spikes in delivereds.

Risks to our asymmetric rate outlook

Election may be disorderly and aggravate a risk-off move

Elevated election uncertainty and the risks of a contested election are the most obvious risk to our asymmetric outlook on rates. While it hard to predict what happens in the event of an extended election count period, we think the longer it lasts the more likely a risk-off tone sets in. If this compounds with a worse-case outcome for the winter flu season, we could potentially break the lower end of our expected range for 10y yields.

Return of hedging value could increase demand for UST in a selloff

There are fundamental arguments for a cap to more meaningful selloffs medium term, including: (1) the fact that 10yT Treasuries regain their risk-off hedging role in portfolios around 1.5%; and (2) the higher likelihood of negative feedback loops between risky assets and bond yields on selloffs beyond 1.25-1.5% for 10yT that are not supported by strong fundamentals. These help us define the threshold between U- and V-shape scenarios around 1.25-1.5% in 10yT (see Fundamentals and feedback).

Fed reaction function could limit a selloff or strengthen a rally

The Fed has a limited toolkit and we do not believe they are likely to ease further through asset purchases until they see clearer signs of economic deterioration or until a sustained tightening of financial conditions forces them to do so. Even as US monetary policy moves from "stabilization" to "accommodation" we do not expect the Fed to pre-emptively increase UST buying until there is a clearer case for action. The Fed likely does not see current back-end rate levels as a hindrance for the economy (see here) and we believe the Fed is likely to embrace "healthy" rate rise driven by fundamentals. But an "unhealthy" or disorderly rise to 1% or higher could bring increased UST buying.

Clients have asked how the Fed might view any rise in rates and when they might seek to resist a rate increase via larger UST asset purchases. We believe the Fed is much more concerned with the composition of any rate rise as opposed to an outright level of longer-dated interest rates. A rate rise that is primarily breakeven led and is associated with higher risky assets is likely to be embraced by the Fed; in contrast, a rate rise that is real rate led and accompanied by pressure on risk assets is likely more worrisome.

Table 3: Fed likely to embrace improving conditions, fight deteriorating ones (change in levels over the 1m leading into peak of 10Y sell off)

Financial Condition Deteriorating	10Y Nominal	10Y Real	10Y B/E	SPX	HY Index
Taper Tantrum	59	89	-29	-4%	83
End '18 Aggressive Fed	22	19	2	-5%	13

Financial Condition Improving	10Y Nominal	10Y Real	10Y B/E	SPX	HY Index
Trump Election	62	37	27	3%	-29
Early June '20	23	5	16	11%	-201

Note: 10Y moves in bp, SPX in %, HY in bp; source: BofA Global Research, Bloomberg

This dynamic can be shown through a few recent examples in Table 3. A "healthy" rise in rates that is associated with higher breakevens and improving risk (akin to the V-shape scenario above) was seen after the surprise Trump presidential victory in 2016. An "unhealthy" rise that is associated with higher real rates and lower risky assets was seen during the US "taper tantrum" and in late 2018 as the Fed over tightened policy. Recent temporary sell offs in early June and late August were more of a "healthy" variety and likely something the Fed would have embraced if it was sustained.

If the Fed wanted to fight an "unhealthy" rate rise we expect they would increase their existing UST asset purchases or "twist" by shifting the distribution of their buying further out the curve. The catalyst for such an "unhealthy" rate rise at present would most likely be taper tantrum like move (a sharp expectations led re-pricing) or pronounced supply/demand imbalance that is associated with cheaper USTs vs OIS + worsening liquidity conditions.

We expect that other non-traditional monetary policy tools will be limited in the near term. The Fed will only deploy YCC if markets are pricing in a materially faster pace of rate increases vs FOMC intentions. The Fed will also continue to push back on negative rates unless they have fully deployed all of their other easing tools.

Trade recommendations

We favor protecting portfolios for the limiting scenarios in the spectrum of outcomes. However, maintaining the efficiency of these hedges requires the expression of the hedges across the range of outcomes in an orthogonal way, such that in a scenario where the risk-on hedge works the portfolios does not incur losses on the risk-off positions (and vice-versa).

Expressing these hedges in volatility space allows for this orthogonality. From the above it seems clear that in the current context only the 30y sector of the curve contains a sufficient degree of freedom to be an effective risk off hedge, while under risk-on scenarios the options extent down to the 10y sector. In both scenarios a Fed on hold near-term favors selling volatility on the left side of the grid up to 5y tails.

Hedging upside scenarios and V-shape

Buying 1y30y payer spread atm+10bp/atm+55bp, financed by selling 1y5y payers atm+10bp. The position is costless (indicative), and locks in an entry level of 65bp for the 5s30s, flat to the forwards and a giveup of 7bp to spot. We target 45bp with a stop at -10bp. The main risk on the trade is a bear-flattening scenario for the 5s30s curve beyond the entry level of the 5s30s curve, with potentially unlimited downside. Because we recommend selling the strike on the 30y leg, the position is also exposed to more meaningful selloffs beyond 55bp in 30y rates even under a bear steepening bias.

Buying 1y fwd 5s30s single look ATM curve cap, partially financed by selling a 1y fwd 5s30s single look ATM+45bp curve cap. The position costs 13bp (indicative) and the risk is limited to the upfront premium on the trade. We target 32bp, with a stop at -13bp.

Hedging downside scenarios and L-shape

We favor hedging negative macro scenarios by buying 5m30y receiver ladders atm-15bp/ -45bp/ -75bp (downside breakeven around 10bp for the 30y rate), financed by selling 5m5y receivers atm-15bp (costless indicative). The position locks a flat 70bp entry level for 5s30s flatteners vs. the forwards. We target a P&L of 30bp, with a stop at -10bp. The main risk is a bull-steepening scenario for the 5s30s curve beyond the 70bp entry level, with potentially unlimited downside under NIRP. Because we recommend selling the low strikes on the 30y leg, the position is also exposed to rallies beyond 45bp in 30y rates (which under a parallel move would take the 5y rate into negative territory).

Together with the risk-off recommendation, these trades leave a portfolio positioned for a bull-flattening of the 5s30s curve near-term (implicitly selling bull steepening and NIRP scenarios), and a bear-steepening medium term (while implicitly selling scenarios for un-anchoring of frontend rates in a bearish move). These are aligned with our view for the limiting scenarios in the range of likely outcomes.

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