

Austin Powers on the Yield Curve

Oh Behave!

The shape of the yield curve has become “the” topic of conversation. Everyone is trying to figure out what the shape means and whether the fact that 2s vs 10s briefly inverted has any predictive qualities. What does it mean for the economy and markets that 2s vs 10s inverted and remains precariously close to inverting again?

By now I’m sure you’ve all seen various charts showing the “success” of the 2s vs 10s inversion in terms of predicting recessions at some time in the future. So, I’m going to take a different tack to see what this could all mean.

Monkeys, Typewriters, and Shakespeare

One of my statistics professors was fond of saying that given enough monkeys typing on enough typewriters, one would eventually, randomly, type out the works of Shakespeare. It might take billions and billions of monkeys typing away for an incredibly long time, but it would eventually happen.

That was his way of explaining that **even random behavior can create things that seem intentional**, and I can’t help but think that is relevant to today’s bond market.

10 Year Forward Yields

It has been a while since I played around with the FWCV I25 function on Bloomberg (lets you mess around with forward yields based on the U.S. active Treasury curve). It confirms what I assumed in this weekend’s [Collecting Our Thoughts](#), which is that while the 10-year yield is 2.33%, in 10 years, the 10-year is “expected” to yield 2.94%, but in 20 years, it is expected to yield “only” 2.01%. So, if the yield curve is telling us “something,” it is saying that the 10-year yield will be much higher in 10 years than it is today (maybe we are discounting a recession, followed by robust growth?). Then in 20 years, it will drop much lower than even today. Maybe some demographics come into play? Or maybe all energy is sustainable by then, so no matter what growth we have, we won’t face inflation pressures?

I cannot make up a reasonable scenario which explains what the yield curve is pricing in at the longer dated end. I guess I could come up with all sorts of reasons, but I keep coming back to:

- Many funds are capped at 10-year maturities, so if they want duration today, they buy the 10-year.
- Many funds are capped at 30-year maturities, so if they want duration today, they buy the 30-year.
- Almost no fund has mandates around 20-year bonds, because the 20-year bonds weren’t issued for 34 years (until it reappeared in 2020). So, there are “natural” and even “forced” buyers of 10s and 30s, but very few who “need” to buy the 20-year.

So, we can either try and divine some mysterious signal in the 10-to-30-year part of the curve, or we can agree that at least some portion of the 10-30-year curve is determined by supply, demand, and even investment guidelines.

I am in the camp of believing that there is more going on in the 10-to-30-year part of the curve than some exotic fed based scenario. I am also in the camp of people who tried to fight 20s vs 30s inversion once too often, and have relegated that trade idea to the “shorting JGB” trade idea (DON’T DO IT! No matter how obvious it seems – DON’T DO IT).

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But, if 10s to 30s can be influenced by a lot of things that have little to do with actual rate expectations, couldn't that mean other parts of the curve are impacted too?

Signal To Noise Ratio

I am not disagreeing (or agreeing) with any 2s vs 10s theories, I'm merely pointing out that the signal to noise ratio may be low because of other factors.

In a period of notoriously poor liquidity (high volatility, quarter end for market makers, year-end for Japan and other parts of Asia), we may be reading too much into levels that are more a function of positioning and flows than any well-thought-out Fed policy/rates view. Also, it seems like it should be a well thought out Fed/rates view if the 2s vs 10s inversion is to have any relevant signaling power.

1 Year Forward Yields

While we don't have a 1-year Treasury, we can build a forward curve looking at implied 1-year yields.

The 1 year is 1.63% today (according to FWCV I25), which seems reasonable compared to 12-month bills at 1.59% and some old bonds with about a year left at 1.65%.

It is reasonably easy to see what series of rate hikes are getting priced in to get that yield.

In a "fair" or "arbitrage" world, if you buy and hold 1-month bills, your average from that strategy over the course of the year should generate about 1.6%. We need a series of hikes to get that average, and since we are currently below it, we will need to get hikes above 1.6% to offset the initial drag from the rolling 1-month bill strategy versus buying the 1-year bond today.

We understand that the 1-year yield, 1 year forward (say that 10 times fast), is 3%.

So at the end of the year, whether you chose to roll 1-month bills, or you bought the 1-year bond, you have the opportunity (if the forward curves become realized curves) to get a 1-year bond that yields 3% (the current 2-year bond is 2.3%, which is close enough to the average of 1.63% and 3% for our purposes).

But 2 years forward, the 1-year yield is back to 2.8%.

And 3 years forward, the 1-year yield is down to 2.35% and is "expected" to be stable around that level until you get to 7 years forward, where it drops all the way back to 2.14%

So, if instead of looking at 2s vs 10s, I think about what the implied 1-year yield will be going forward. I see a "rate scenario" that looks something like this:

The Fed hikes to slow down inflation (we get somewhere above 3%) and then the Fed realizes it has likely gone too far, and dials back yields, to around 2.35% for an extended period. Not surprisingly, that is somewhere around many estimates of the "neutral" rate.

So, when I look at the yield curve as a series of 1-year yields, I don't see a market that is pricing in a recession.

What I see is a market which is pricing in a Fed that fights inflation a bit too hard, but then is quick to pull back to a more dovish stance and is in fact successful at creating a "soft" landing.

That is how I see what the market is expecting to see as events unfold, not how I expect things to unfold!

Austin Powers on the Yield Curve**Quantitative Tightening – Throw Me A Bone Here!**

We've gotten to the 3rd page of a report purporting to try and understand what the yield curve is signaling without mentioning quantitative tightening and balance sheet reduction! I do feel that I should apologize to QT and throw it a bone.

I am not convinced we have a good handle on how QT works.

I see a variety of estimates on how many billions of QT are required to act like one 25 bp hike, but I find those comparisons not to be very intuitive.

For starters, I'm not sure we understand what QE did. I've seen a lot of explanations of QE, but I will stick to my Newton's Cradle theory.

As the Fed buys, it forces **investors to make incremental decisions** which amount to:

- Buying longer maturities.
- Take more credit risk.
- Take more liquidity risk.
- Take on more structured risk.

This "incremental" decision effectively happens to every investor. The Fed, to some extent, crowds out the most conservative investor. That investor's "new" risk decisions force the "2nd most" conservative investor to make the same choices, and so on, and so forth.

And, just like Newton's Cradle, the action doesn't occur in the ball that is dropped, it occurs only at the extreme.

So, QE, in my view, had the greatest impact on the most illiquid risk (private credit must be one of the fastest growing segments of the credit market) and the riskiest assets (low cash flow, high PE stocks), etc.

So, weirdly, I think that we can ignore QT to some extent when thinking about yields, especially shorter dated yields, but I don't think we can ignore QT when we think about "riskier" assets (longer maturity, less liquid, higher risk, etc.)

I for one am much more concerned about the impact of QT on markets and valuations than I am about any potential signal about 2s vs 10s inversion.

We get the minutes on April 6th, and I continue to believe that risky assets have not fully priced in what I expect to be an expedited timetable for balance sheet reduction.

Congress Thinks the Fed's Profits are Shagadelic

On January 14th, the [Fed announced](#):

"The Federal Reserve Board on Friday announced preliminary financial information indicating that the Reserve Banks had estimated net income of \$107.8 billion during 2021, of which \$107.4 billion was remitted to the U.S. Treasury as required under the Federal Reserve Act. The Federal Reserve Act requires the Reserve Banks to remit excess earnings to the U.S. Treasury after providing for operating expenses, payment of dividends, and the amount necessary to maintain surplus."

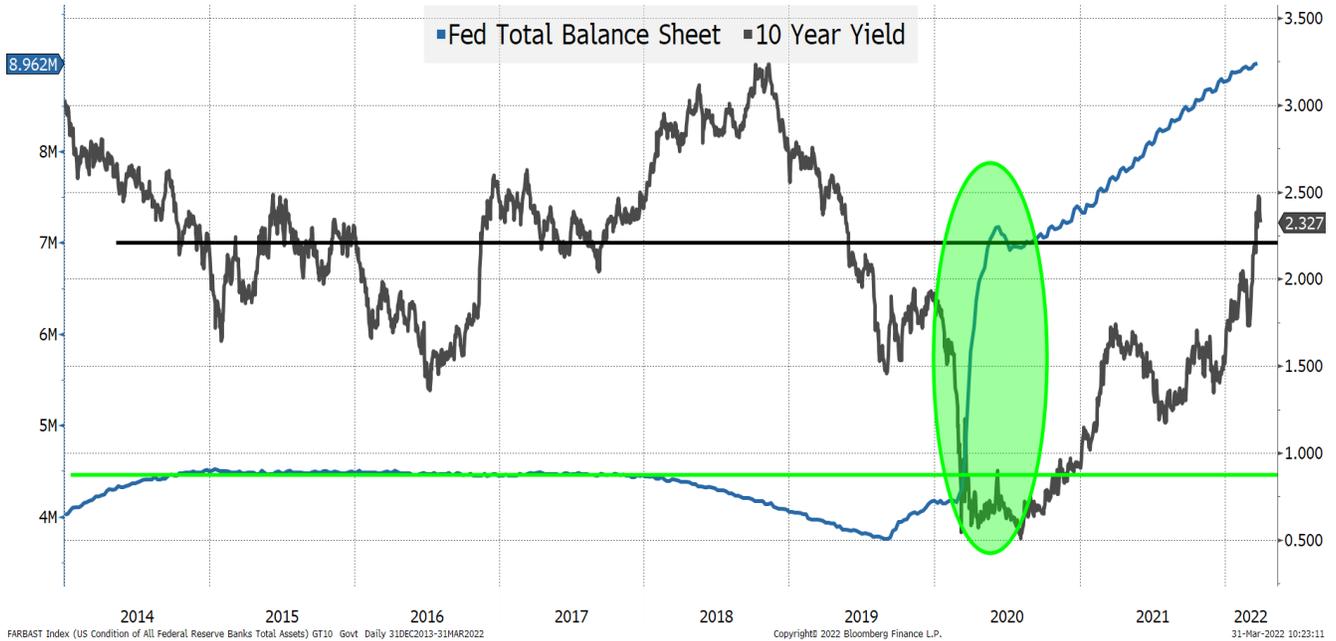
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We've written about the [Fed's profit engine](#) before.

2021's profit of \$108 billion beat 2020's \$89 billion and was almost double the \$55 billion in 2019 (which had dropped from \$65 billion in 2018).

This is important for several reasons, not the least of which is what happens if the Fed has a loss? I cannot imagine a more challenging task than explaining to D.C. why they aren't getting a big check to spend, but instead they need to fund a loss? (I assume there are buffers, etc., but let's look at this simply).



Prior to 2019 the Fed's balance sheet was "stable" at just under \$5 trillion. That started to decline in 2019 and then ramped up aggressively in 2020.

If we just look at 2021, simplistically, we have an "average" balance sheet size of roughly \$8 trillion. Their cost of funds (using IOER) should have been about 0.125%. Let's assume they had an operating budget of \$6 billion (seems like that is what it was, though I'm not sure how much of that is expected to be paid from regular services, etc., but I pulled from [here](#)).

So, if they made \$114 billion on their portfolio, the average yield would be about 1.55% (I had that prior to 2020, it was likely above 3%). If the lowest yielding debt matures and rolls off and has been getting replaced by higher yielding debt, their average yield should be increasing, though a lot is already locked in. Ultimately, I need to go through their holdings and estimate what their average cost/yield is on every bond they own, whether they use accrual accounting (I've assumed that), and what their actual funding cost is, but I assume at some point rate hikes could push the Fed to a loss.

While that shouldn't impact policy, I can't help but think about it.

The Snake to My Mongoose

I've mentioned it in previous reports, but I continue to believe that China and some Middle East countries may be reducing their Treasury holdings in response to the steps we took against the Russian Central Bank. That would explain some pressure on the front end (5 years and in) that would have nothing to do with offering predictive power on the Fed or recessions.

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How I See it Playing Out

For now, I'm not going to lose any sleep over 2s vs 10s inverting – there are other reasons to be cautious on risk than that “signal”.

I do think that the Fed is “jawboning” not only the markets, but also D.C.

I expect, when push comes to shove, the Fed will choose not to go down the path of hiking excessively and then be forced to backpedal.

I am in the camp:

- A surprise on the QT side that the market is less prepared to absorb.
- 50 bps next meeting.
- Another dovish press conference where we hear “data dependent” until we are tired of hearing it.

Ultimately, we won't get anywhere near the current number of hikes, but the focus of today's report was less on that and more about addressing why I think that the “inversion” signal is of limited value.



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