



Could QT lead to a steeper yield curve?

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In the [first note](#) in a series of three on QT we argued that QT will most likely contribute to a flattening of the yield curve. Instead, many financial market participants tend to associate Quantitative Tightening (QT) with a steepening of the yield curve. In this note we review some of the scenarios that could lead to such an outcome, and while we acknowledge the risk, we discuss why it is not our base case.

Executive Summary

- We think QT and yield curve flattening will go hand in hand. But there are alternative scenarios, some of which market participants tend to focus heavily on, where QT may lead to a steeper yield curve.
- In the first scenario, inflation proves to be very persistent, and the Federal Reserve communicates that it will keep tightening (and possibly even accelerate QT or rate hikes), despite a fall in aggregate demand. This scenario is not as remote as many market participants may think. In theory, a steepening in the yield curve could occur but in practice it's unlikely it will happen.
- In the second scenario, the Federal Reserve panics about inflation and conducts a more active QT paired with a more aggressive forward guidance. We think this scenario is heavily odds against, but a steepening of the yield curve is likely to occur if it were to take place.
- In the third scenario, QT is conducted at a speed that the market struggles to “digest”. Given difficulties in calibrating QT, we do see a concrete risk that such a scenario materializes, bringing about a steepening in the yield curve, but think that any effects would be temporary.
- This note reviews the arguments and illustrates why we think these alternative scenarios are less likely, and more temporary in nature. While the note focuses on the Federal Reserve, the arguments are broader and mostly apply to other major central banks too.

We think there are three main alternative scenarios where QT may lead to a steeper yield curve, but we see them as less likely or more temporary in nature compared to our base case of a flatter yield curve.

In theory, a steeper yield curve could materialize if the Federal Reserve communicates that it will keep tightening (and possibly even accelerate QT or rate hikes), despite a fall in aggregate demand.

As the Fed appears to be determined to “see the whites in disinflation’s eyes” before reversing policy settings, this state of the world could happen if inflation proved to be very persistent. With the correlation between growth and real policy rates flipping from positive to negative, and therefore little benefits in holding a safe fixed income security as the economy does poorly, real term premia would rise. Persistent high inflation would also likely lead to an upward revision in the inflation risk premia embedded in long term bonds.

But offsetting the rise in term premia, the average policy rate embedded in longer term bonds in the form of expectations would most likely fall in anticipation of future rate cuts. And overall, the yield curve would continue to flatten/remain flat until policy rates are cut.



This is in line with what observed in the past when central banks tightened policy in a recession (e.g. in the 1970s in the UK and early 1990s in Germany): term premia rose, but future expected policy rates fell significantly, leading to an overall flattening of the yield curve.

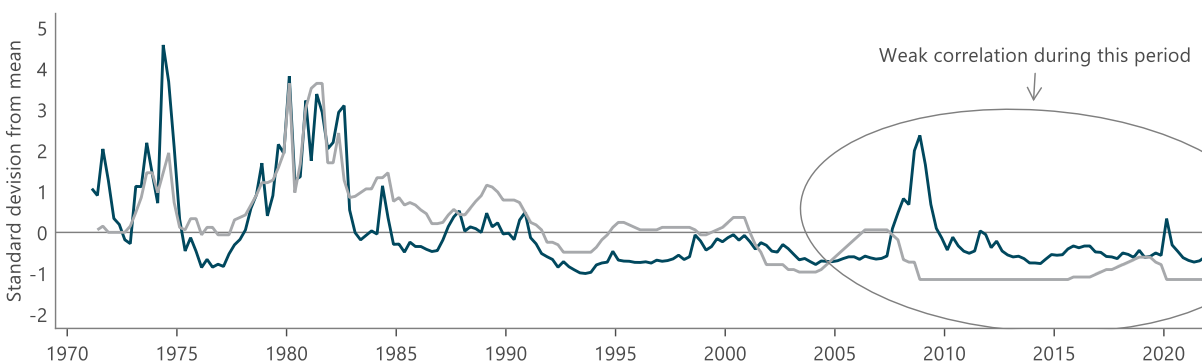
The second scenario that would see a steepening of the yield curve is one where central banks conduct a more active QT paired with a more aggressive forward guidance - possibly because they panic about inflation.

Rather than being set on “auto-pilot” at a pace well communicated in advance, QT is changed more frequently, and comes on top of existing or more hawkish rate guidance/action. This scenario would see a market reaction similar to the taper tantrum with long term yields spiking driven by a higher term premium, and the yield curve steepening.

Given the Fed has repeatedly stated that it sees balance sheet tightening as a passive policy running in the background, how could this happen? Some [policymakers](#) have argued that the relationship between short-term interest rates and output (captured by the so-called “IS curve”) has broken down in the past few decades, leading to a smaller impact of higher rates on inflation.¹ One possible reason is that with the financialization of economies, most of the impact on aggregate demand of changes in the policy rate occurs only indirectly via changes in broader financial conditions, including longer-term interest rates, credit spreads, exchange rates, and equity prices.

US Financial Conditions and the Fed Funds rate appear to be closely correlated until mid 2000s. Since then the correlation appears to have faded.

— US Fed Funds rate (standardized) — Federal Reserve Bank of Chicago, Financial Conditions Index



Source: BNY Mellon Investment Management, Macrobond. Data as of 17/05/2022.
For illustrative purposes only.

¹ In fact, US financial conditions loosened at the start of the previous US tightening cycle, before starting to tighten only in 2018.

Previous QE purchases may be driving a wedge between policy rates and financial conditions, weakening the monetary transmission mechanism. As a result, the argument goes, a more active use of QT may be beneficial for tightening the relationship between economic fundamentals and financial conditions, and as such the impact of monetary policy on output and inflation.

This scenario is not our base case, because i) it assumes that policymakers are confident about the impact of QT on financial conditions, which they have said multiple times they are not, and ii) it rests on the idea that QT and rate hikes impact financial conditions in a very different way, a view not shared too widely in policy circles. In addition, providing an early and predictable plan for QT is seen by most policymakers as a precondition for stabilizing expectations, minimizing volatility and increasing the effectiveness of normalisation.

The third scenario is one where QT is conducted at a speed that the market struggles to “digest”.

A widely-held view is that as the supply of government bonds that need to be absorbed by the private sector rises and reserves fall, there is a change in the composition of assets held by the private sector, which requires a significant adaptation in how the financial system operates. As the turbulence in funding markets seen during the [previous QT episode](#) reminds us, such adaptation may lead to unintended consequences.² **We see a risk that QT may impact funding markets (in particular repo markets), and in turn, the functioning of the government bond market. In such a scenario, market volatility and yields on government bonds could rise more than warranted by economic fundamentals, possibly leading to a steeper yield curve.**

In response to past funding market turbulences, the Fed has introduced new facilities³ to prevent rates from spiking in a QT environment. There are reasons to be wary of the Fed’s ability to completely prevent funding market disruptions and sharply higher yields, **but we believe the Fed (and the US Treasury through its issuance decisions) will ultimately adjust their operations to restore market functioning if disruptions were to occur.** In other words, long term yields may rise due to technical factors, and may do so more than shorter term ones, but we expect such market moves to be temporary in nature (i.e. likely meaningful for a quarter or two).

A second argument is that QT will lead to the rise in government debt that needs to be absorbed by the private sector and that higher long-term yields are needed to entice investor to buy such a large amount of additional Treasury securities.⁴ Some estimate the amount to be ~\$2tr per year over the next 2/3

² In 2018-2019, QT impacted the composition of liquid asset holdings of US banks - with banks' holdings of US Treasuries increasing and holdings of reserves falling. Paired with other factors, this reduced banks' ability to supply funding at short notice in repo markets. At the same time, there was a rise in demand for Treasury repos from leveraged financial institutions in order to purchase long term government bonds, creating a spike in repo rates. While repo market issues in 2018-2019 did not lead to a spike in higher long-term yields, similar issues in the early stages of the Covid market sell-off did.

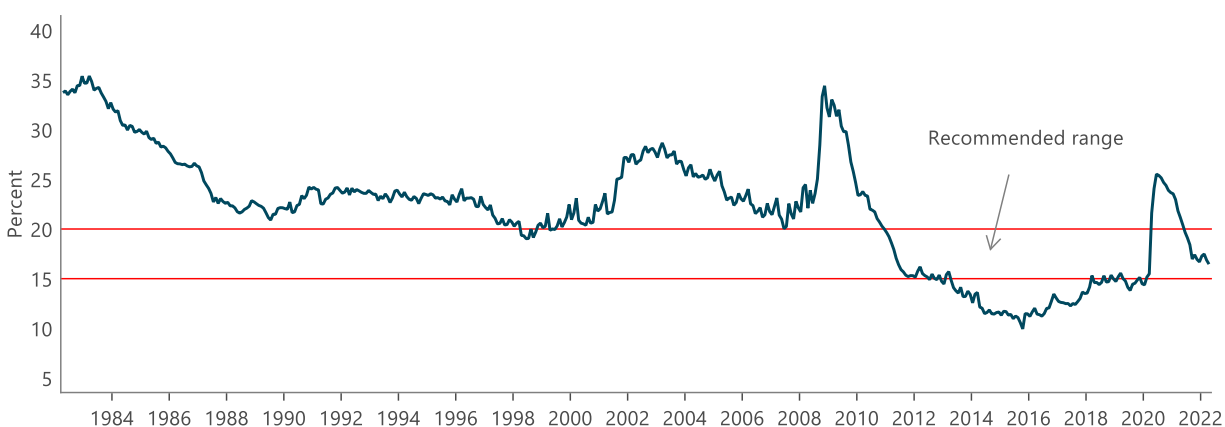
³ Such as Standing Repo Facility and Repo and Reverse Repo Agreements.

⁴ The details of the argument are as follows. Banks and foreign investors have been the major marginal private buyers of Treasuries, but they may struggle to increase their holdings further. E.g., rising costs to hedge USD exposure may make US dollar assets less attractive for currency-hedged foreign investors. Banks already appear to be holding record amounts of Treasuries as a share of their total assets. Leveraged Treasury investors, a key marginal buyer of Treasuries during the previous

years,⁵ or ~\$6tr in total. Applying standard multipliers of the impact of QE on rates and adjusting them to account for the different nature of QT,⁶ implies an impact of +50-60bps on long term rates. A meaningful amount that could lead to a steeper yield curve.

While possible, we don't think such an outcome is the most likely. First, we see evidence that the US Treasury will adjust its issuance plans to minimize the impact of QT on debt financing costs. The US Treasury will temporarily reduce the issuance of longer-term government bonds, waiting for demand to rise over time, and increase issuance of Treasury bills, for which demand has been booming for some time. The US Treasury aims to have only up to 15- 20% of its debt in short-dated securities but can depart from such a rule if needed. Second, in the short run at least, borrowing needs of the US government have been falling, and may continue surprising to the downside for some time. The high growth of nominal GDP that comes with high inflation, and a hot labor market that sees rising wages and employment, translated into a strong rise in tax receipts (of which income taxes are the biggest driver).

T-bills as a % of overall UST marketable debt currently fall within the recommended range



Source: BNY Mellon, Macrobond, U.S. Department of Treasury. Data as of 17/05/2022.
Chart for illustrative purposes only.

QT episode and until the pandemic hit, require large amounts of repo funding in order to absorb several \$ trillions in the upcoming government bond supply, but dealers and money market funds that in theory can provide it, may be constrained in practice. All in all, this implies that non-leveraged investors (such as mutual funds or pension funds) may need to step in. Most likely, these investors need to sell other assets (such as Treasury bills or corporate bonds) to fund purchases of Treasuries. But to do so likely requires higher long term yields relative to short term ones given the lack of yield pick up from long term bonds due to the flat US yield curve.

⁵ Such estimates assume that QT will proceed at a pace of ~\$1tr/year, of which \$700/year in Treasuries, until the current \$9tr balance sheet of the Fed has fallen to around \$6t. At the same time, net issuance of US Treasuries is seen as remaining high, around ~\$1.5t/year. Overall, this implies \$2-2.5tr/year in net issuance that needs to be absorbed over the next few years.

⁶ Median estimates from existing studies suggest that for every 1% of GDP of QE purchases long-term yields fall by 4-5 bps. But as explained in the appendix, QT is not QE in reverse, and as such, for simplicity we have halved such estimates.

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