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Investment Strategy Bulletin

US Rates: How high can the Fed go?

Investment Solutions

September 2018

A tightening cycle well under way – but how much is left?

- The Federal Reserve's tightening process is well under way – and well ahead of other major central banks.
- Despite the tightening steps already taken, and a well advanced economic cycle, signs of slowdown in the US economy are still mostly absent.
- With no signs of slowdown - and a fiscal boost still building - the risk of higher policy rates is material, and likely to catch the market by surprise. We expect two more hikes this year, and three hikes in 2019.
- The long end of the curve may also face some upward pressure, as an inflation risk premium starts to be priced and some of the forces that have kept yields low recede. However, risk aversion and structural drivers that remain in force are likely to keep moves reasonably contained.

The hiking cycle so far

While the current hiking cycle by the Federal Reserve took longer than expected to begin, it is now well under way. As the expansion enters its tenth year the scars of the global financial crisis are fading and economic conditions increasingly resemble previous expansions. A long period of sustained growth has allowed the Fed to proceed with seven interest rate hikes, with the Fed Funds rate now at 2% and likely to continue rising. Meanwhile, the Fed's balance sheet has already shrunk by about USD 250bn, with total holdings falling towards USD 4tn (and likely to continue shrinking, at an accelerating pace), after the run-off process started in October 2017. The critical question for investors at this point is how much further the cycle can proceed, and what would cause the Fed to slow its pace or pause?

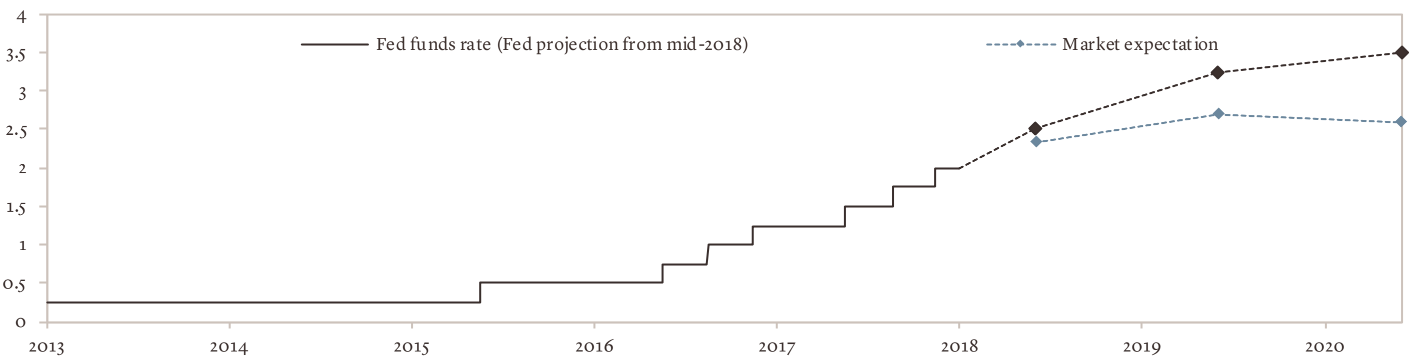
How much further?

The objective of monetary policy tightening is to prevent overheating in the economy, i.e. the risk of growth rising too far beyond an economy's potential, thereby generating above-target inflation that would be hard to rein-in once an accelerating dynamic has taken root.

In this context, most evidence suggest the Fed's tightening process still has some way to go. Inflation, having spent a long stretch below 2% during the early stages of the post-crisis recovery, is now back at target (see Chart 2). Given a tightening labour market, little spare capacity, higher commodity prices and the expected impact from tariffs, domestic inflation is likely to move higher in the near term. The Fed acknowledges the risk of a mild overshoot in its published projections, with the median estimate for core PCE as of

I. Current Fed guidance points to continued rate hikes in years ahead, but market is doubtful

Fed projection reflect median from June 2018 Summary of Economic Projections; market expectations based on OIS rate



Sources: Federal Reserve, Bloomberg, Lombard Odier

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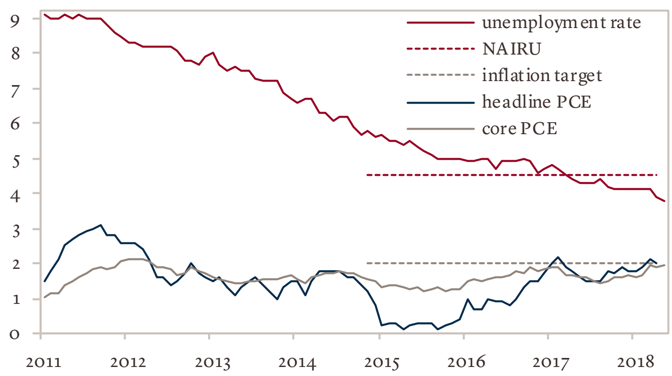
Data as of 30 August 2018 unless otherwise stated.

II. But the economy is still growing at a healthy pace

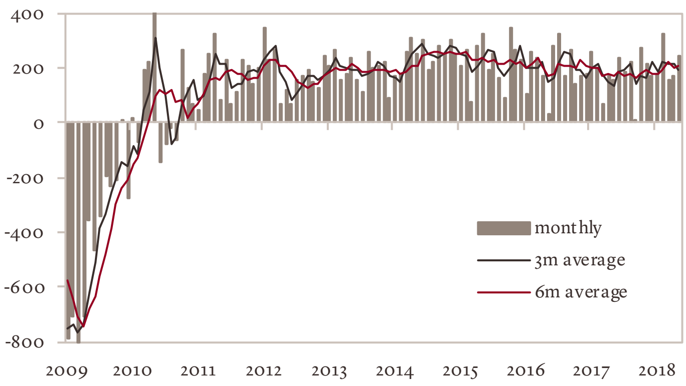
NAIRU: Fed estimate of longer run unemployment rate



Sources: Bloomberg, FOMC, BEA, Lombard Odier

III. And the pace of job creation has only slowed down slightly

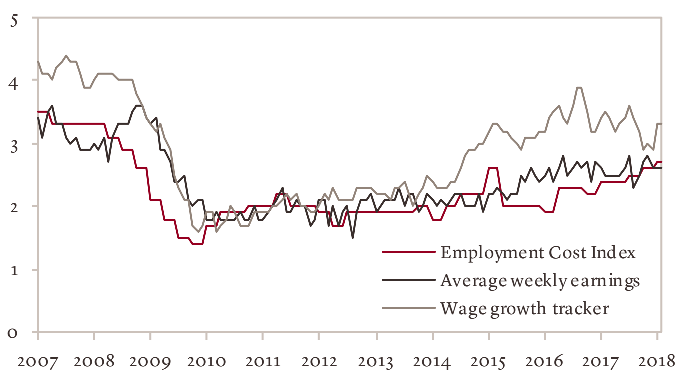
Nonfarm payrolls, in thousands



Sources: BLS, Bloomberg, Lombard Odier

IV. Wage growth is on the rise, thanks to a tight labour market

Annual growth in compensation, in percent



Sources: BLS, Atlanta Fed, Bloomberg, Lombard Odier

the June meeting standing at 2.1% for both 2019 and 2020 (and the upper end of the range at 2.3%).

Meanwhile, the economy shows few signs of slowing. US GDP growth over the first half of 2018 exceeded 3% – well above most estimates of potential growth, which stand at roughly 1.8%. Ongoing fiscal stimulus should continue to support growth in the next few quarters, with CBO estimates pointing to a boost in growth of about 0.3% in 2018 and 0.6% in 2019. The labour market continues to tighten with the pace of job creation averaging 208k per month in the first half of 2018 (Chart 3). While slower than the peak of about 280k per month in 2016, job creation is still running at about twice the rate required to keep pace with population growth. Jobless claims continue to make new lows, pointing to further labour market strength ahead. As a result, the unemployment rate, already at a multi-decade low of 3.9%, is likely to continue falling, in turn pushing wage growth and inflation higher.

The Fed's own projection places the equilibrium rate of unemployment at around 4.5%, and expects unemployment to trough at 3.5% by 2019. This combination (unemployment in this cycle reaching one full percentage point below NAIRU estimates) suggests a significant undershooting of the Fed's "full employment" objective and hence a need for continued interest rate increases. Moreover, with the unemployment rate today already below 4%, the actual rate may well undershoot the Fed's 3.5% projection – which would suggest a need for additional policy tightening beyond the Fed's existing plans.

The Fed's current guidance – as revealed in the June FOMC "dot plot" – suggests continued interest rate hikes until the Fed Funds rate peaks at 3.5% by 2020[1], which is moderately higher than the 3% level seen by Fed officials as the "equilibrium rate". Given the prevailing dynamics in US growth and inflation discussed above, it is conceivable that the Fed may even reconsider this guidance and point to a more restrictive stance in the near future. This is of particular importance from an investment standpoint, as markets seem ill prepared for such a scenario. The US rates market suggests investors seriously doubt the Fed's guidance, and expect rates to peak in 2019 at levels slightly above 2.5% (Chart 1). The surprise would therefore be material if the Fed does indeed deliver the tightening it currently plans (and even more so if it delivers more).

In addition to preventing overheating during an expansion, interest rate hikes also serve to rebuild ammunition for the next recession. This is particularly relevant in the current cycle, as the proximity to the zero lower bound would leave little room for rate cuts to support the economy in case of a downturn in the near term. As shown in Chart 8, each of the past easing cycles since the early 1980s has required cumulative rate cuts in excess of 500bps. Policymakers are alive to the risks of being ill prepared for the next recession, especially as the late-cycle tax cuts have also reduced room for counter-cyclical fiscal policy in the future. Therefore, the Fed may choose to push rates higher than would otherwise be needed to stabilise the economy. This may strike policymakers as the appropriate strategy in order to better position monetary policy for the next downturn.

What could cause the Fed to stop earlier?

The most obvious reason for the Fed to change course would be a weaker economic outlook. Having taken some time to begin in earnest, the hiking cycle is now proceeding with quarterly rate increases of 25bp and continued balance sheet reductions at a

[1] Looking at the median dot, the Fed's dot plot points to two more hikes in the rest of 2018, three hikes in 2019, and one hike in 2020

pre-announced pace. Monetary policy remains data-dependent, however, and the Fed would shift its stance based on the evolution of macro data. It is certainly possible that growth will weaken from current levels: in fact, the Q2 2018 rate was unusually high, benefitting from a pickup in mining investment and an unlikely-to-be-repeated export boost. Meanwhile, we also expect the lagged effects of past monetary policy tightening, combined with a stronger dollar, to soften growth momentum somewhat next year. Still, we think it would take a material weakening of the economic outlook for the Fed to change its current approach. Our base case expectation for growth tracking roughly 2.5% in 2019 would therefore suggest a broadly unchanged monetary policy outlook. In this context, we expect that the Fed will be able to deliver three additional hikes in 2019.

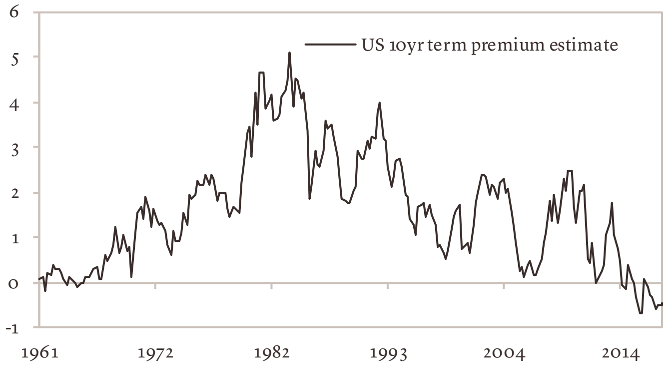
The risk of a softer economic outlook in coming quarters would rise if the effects of tariffs and broader trade tensions prove more damaging to confidence and investment than so far. This is a real possibility given the signs of escalation we have seen at times from the Trump administration. Although our base case remains that a full-blown trade war will be avoided (and the scale of measures already announced is small compared with the US economy), we intend to monitor developments closely given the multitude of risks involved (see here). The Fed's reaction to such a negative supply shock is hard to forecast, as its effects would both weaken growth and raise inflation – posing a dilemma about the most appropriate policy path. However, if policymakers see more risk to growth from falling confidence than from the temporary inflationary effect of tariffs, it would make sense to pause the hiking cycle.

Apart from a growth slowdown, the Fed may have to pause if inflation fails to materialise. While most recent employment and growth data suggest the risk of overheating is rising, today's environment may prove less prone to inflationary overshoots than previous cycles. There is some evidence supporting this view: the widely observed flatness of the Philips curve suggests that falls in unemployment have a smaller effect on inflation today than in the past and real wage growth has been fairly contained. However, the broad trend has been one of rising earnings growth as the labour market continues to tighten (Chart 4) and we expect this to extend further, in line with most maturing cycles. In addition, the effect of the fiscal boost, implemented as the economy is near full employment, is also likely to be inflationary – contributing to firming up inflationary pressures that are already evident.

A prominent question relates to concerns of a financial nature. The shape of the yield curve, typically defined as the spread between 10-year and 2-year yields, is widely seen as an indicator showing the limits to the Fed's ability to tighten. An inverted yield curve has been a reliable predictor of past recessions – with a typical lag of around 1.5-to-2 years. The curve has indeed been flattening continuously since late 2016, and currently stands at around 20bp. It is not clear, however, that further flattening this time would necessarily lead policymakers to reconsider their stance. In the past, the Fed has often continued to tighten despite curve flattening. This was the case for instance in 1999 and in 2006 – when the Fed proceeded to tighten policy until eventually ending up in a recession. And while Fed officials have acknowledged the flattening yield curve as a potential risk, they have so far appeared mostly willing to dismiss it. Notably, in a recent speech, Board member Lael Brainard adopted a view that "this time is different", arguing that thanks to today's low level of term premium, the yield curve will tend to be naturally flatter than in the past and therefore does not send the same signal as in previous cycles. Research published more recently by Federal Reserve staff has also supported the view that, despite its current

V. Term premium at historically depressed levels, but this may start to change as inflation premium returns...

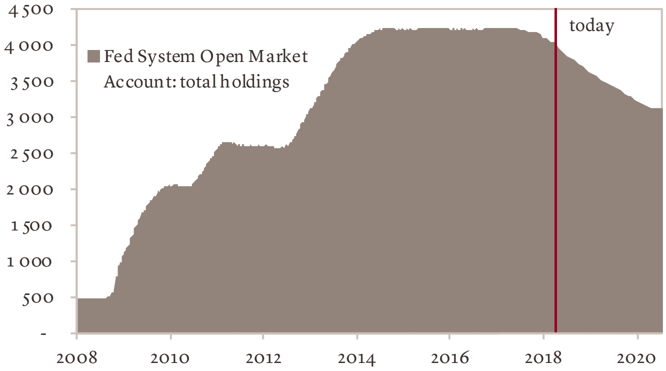
US 10yr term premium estimate, NY Fed



Sources: NY Fed, Bloomberg, Lombard Odier

VI. ...while the Fed's balance sheet continues to shrink...

SOMA* holdings, in USD billions



Sources: Federal Reserve, Bloomberg, Lombard Odier calculations

*Federal Reserve System Open Market Account, containing assets acquired through open-market operations

VII. ...and those of other major central banks strop growing

ECB monthly asset purchases (in EUR billions)

Sources: ECB, Bloomberg, Lombard Odier

flatness, the yield curve does not signal a significant probability of a recession in the year ahead (see: (Don't Fear) The Yield Curve, FEDS Notes, June 28, 2018).

Finally, risks from abroad are often seen as a possible trigger for a pause in the Fed's tightening process. In this view, even if the US economy remains strong in the face of tighter policy, policymakers may reconsider their stance in light of its effects on other economies. However, it is worth noting that the Fed has a high bar for letting overseas developments affect its policy outlook. Historically, the Fed has only tended to shift its stance to the extent that conditions elsewhere pose a serious risk of contagion to the US economy – such as the European sovereign debt crisis of 2011-12. Other episodes of severe foreign stress, such as the Mexican peso crisis of 1994 or even the Asian crisis of the late 1990s, were not sufficient for the Fed to change its policy substantially. This view was also referenced more recently by Jay Powell in a speech a few months before his confirmation as Fed Chair, in which he argued that continued pursuit of the Fed's dual mandate would be the best thing "not just for the United States, but for the global economy".

What happens to long end yields?

If the Fed Funds rate ends up exceeding 3% over the cycle, a critical question for investors in fixed income assets (but also for most other asset classes) would be the effect of such a move on the long end of the yield curve.

While monetary policy has near-perfect control of the short end of the curve, the dynamics at the long end are more complicated, and therefore much harder to forecast. In recent years, most market participants have been surprised by the persistently low level of yields globally, with a great part attributed to the effects of demographics, productivity growth, and the demand for safe assets.

The level of long-end yields can be broken into two main parts: expectations for future levels of short-term rates, plus a "term premium", i.e. the additional compensation required by investors to hold long-maturity bonds. While we can make reasonably confident estimates about the path of short-end rates, with the published projections by Fed officials as a useful benchmark, the path of the term premium is notoriously hard to forecast. In fact, as an unobservable variable, even the current level of term premium is hard to estimate.

Nevertheless, a few points are worth highlighting:

- According to some estimates, such as the model produced by analysts at the New York Fed, the current level of term premium is close to a multi-decade low (Chart 5). This may be partly the result of the extremely low risk of inflation seen in recent years. However, that may start to change as uncertainty over the future path of inflation increases. As discussed above, after a protracted period of sub-target inflation, US core CPI is now comfortably above 2% and the Fed has implicitly acknowledged the possibility of an overshoot in coming years. This would justify a higher inflation risk premium in fixed income assets.
- In addition, the Fed's Quantitative Easing programmes have helped keep bond yields at historically low levels in recent years. This is also changing: the Fed ended its asset purchases in 2013, and last year started reducing its bond holdings. As shown in Chart 6, after hitting a maximum size of USD 4.25tn, the Fed's balance sheet has now reduced to about 4tn, and should continue to shrink at an accelerated pace[2], given the Fed's pre-announced normalisation process. This should exert upward pressure on yields – especially when bond issuance by the Treasury is on the rise, given the need to finance a widening budget deficit.
- Finally, the downward pressure on Treasury yields from global forces is also likely to recede going forward. So far, the Fed is clearly ahead of the curve in the policy normalisation process, and other major central banks are still providing extraordinary accommodation through asset purchase programmes. The European Central Bank, having already reduced its pace of purchases, has signalled its intention to end asset purchases by the end of this year (Chart 7). We expect it to start raising interest rates in the second half of 2019. The Bank of Japan has already reduced its asset purchases and considered tweaks to its easing programme. The influence of such central bank actions goes beyond their local bond markets. When the BoJ allowed JGB yields to rise from near-zero to just above 0.10%, the effect was a sell-off not just in JGBs, but in most bond markets globally, including US Treasuries.

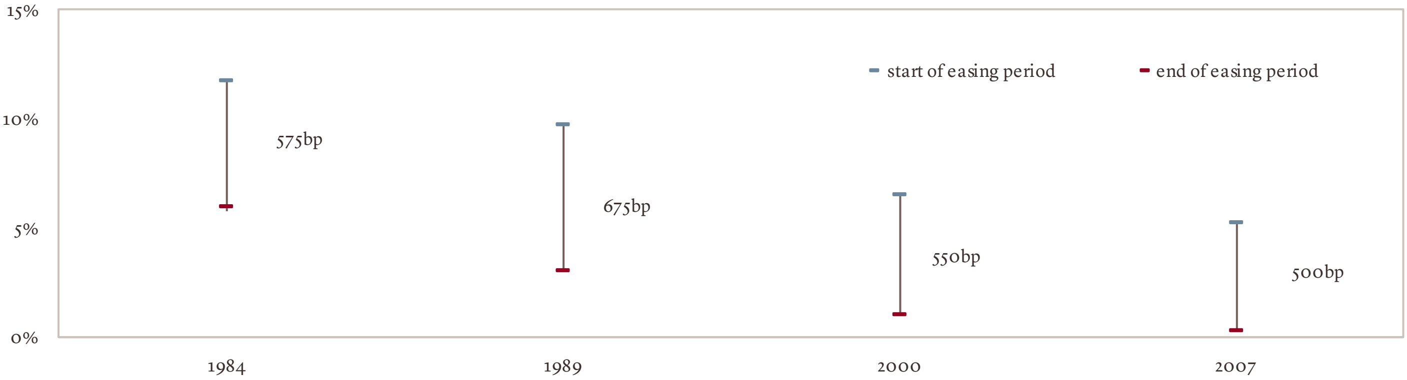
In summary, a number of factors may combine to push long-end Treasury yields somewhat higher in the near future, as the process of policy normalisation continues further in the US, and begins in earnest elsewhere. Together with the upwards trend in short end rates driven by policy rate hikes, we expect this to develop into a highly important investment theme in the quarters to come.

Bill Papadakis, Macro Strategist

[2] The process of balance sheet reduction takes place by allowing maturing assets to "run off" (i.e. not re-investing the proceeds) up to a monthly limit. This cap is currently 40bn/month and in Q4 will be increased to 50bn

VIII. In past easing cycles, the Fed has cut by more than 500bp in total

Fed Funds rate at the start and end of recent hiking cycles (labels show cumulative rate cuts over the cycle)



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