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Stubbornly low treasury yields

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Stubbornly low treasury yields

- Treasury yields are low given imminent Fed tightening
- We expect Treasury yields to rise but probably not out of the low range

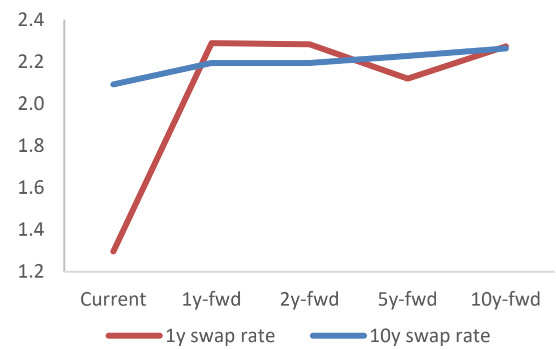
The Fed has left little doubt that it will start tightening monetary policy soon and it seems to us that the latest data reports have further increased the pressure on the Fed to act soon.[1]

So far this year, the 10-year Treasury yield rose about 40 bps to just under 2%, which is still low by historical standards, as well as in light of high inflation and imminent Fed tightening.[2]

Swap forwards price in a rapid rise of short-term rates (Fed tightening) but very little for further increases in long-term interest rates over the next ten years (see Chart 1). The swap forwards imply that overall interest rate conditions remain broadly unchanged and that Fed tightening may push the economy close to recession (flat yield curve).

Chart 1: US swap forward rates

% p.a.



Source: Bloomberg [3]

We do not claim that the market is wrong. This note outlines our thinking on Fed tightening, the direct impact on Treasury yields and whether we will stay in the low-yield steady state of the last two decades.

Serious as well as humble and nimble

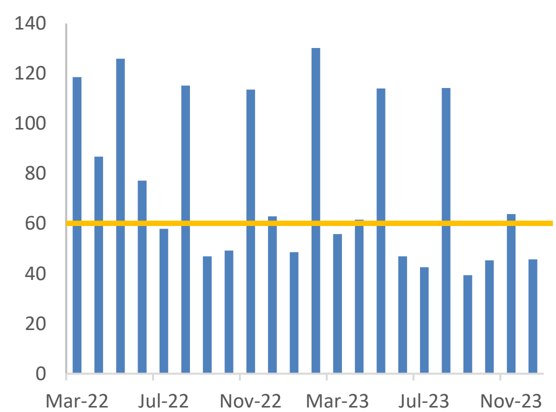
Fed Chairman Powell stressed at the press conference after the last FOMC meeting that the economy is in a much different place compared to the last tightening cycle and that this requires an adequate policy response.[4] The January labor-market and inflation reports have further underscored that view.[5]

The risk we see is that inflation remains stubbornly high and the Fed has to do more. But Fed Chairman Powell also talked about "two-sided risks" and the need to be "humble and nimble."[6] The memory of 2019 when the Fed had to reverse its tightening policy abruptly seems to be still present.[7]

We assume in our base scenario 200 bps of Fed funds rate hikes through the end of 2023, commencing in March with a possible first step of 50 bps and the chance of sequential rate hikes. Second, we assume the Fed will start rolling off maturing Treasuries starting in July. In our view, the Fed will limit the monthly Treasury roll-offs to $60 billion, which is double the cap from the last balance sheet reduction (see Chart 2). This pace would reduce Fed Treasury holdings by $925 billion by the end of 2023.

Chart 2: Maturing Fed Treasury holdings

$ billion per months



Source: Federal Reserve Bank of New York [8]

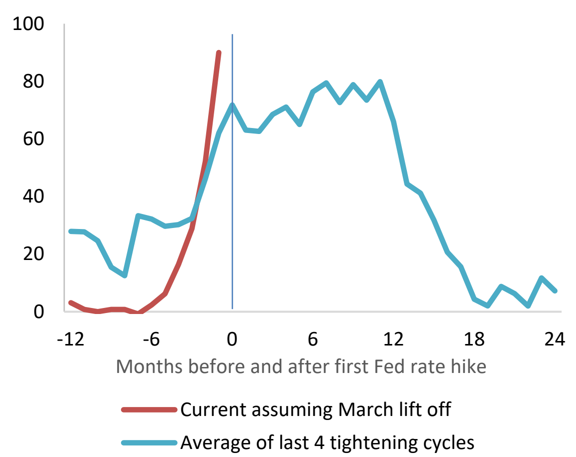
Fed policy and the 10-year Treasury yield

Our analysis suggests that Fed policy impacts the 10-year Treasury yield through three channels.

- The first channel is the actual level of the Fed funds rate. We estimate that a 100 bps hike in the Fed funds rate lifts the 10-year Treasury yield by roughly 50 bps, all else being equal.
- The second channel is Fed funds guidance and the resulting market expectation for Fed interest rate policy. This factor captures the impact of Fed funds rate changes before they are actually implemented, as well as the adjustment in guidance and market expectations after the policy change has commenced. We use the 6-months T-bill rate 6-months forward, minus the Fed funds rate as a measure of Fed guidance. The yield impact of Fed guidance for the 10-year Treasury yield typically rises before the Fed actually lifts the funds rate but also reverses once the actual tightening process is well under way (see Chart 3).

Chart 3: Impact of guidance on 10-year Treasury yield

bps



Source: Board of Governors of the Federal Reserve System and ZAIS calculations [9]

- The third channel is Fed Treasury holdings. Our analysis suggests that the relationship is non-linear with a declining impact on the 10-year Treasury yield the higher the Fed's Treasury holdings (a bit like pushing on a string). We estimate that a decline in Fed Treasury holdings equal to 1% of GDP from the current level would raise the 10-year Treasury yield by less than 3 bps, all else being equal.

70 bps higher yields, all else equal

The net impact of our base scenario through the three channels would be a rise of up to 70 bps in the 10-year yield through the end of 2023, with a possible overshoot in 2022.

- Total Fed rate hikes of 200 bps would lift the 10-year yield by 100 bps by the end of 2023. Front-loading rate hikes could lead to faster yield increases in the near term.
- We estimate that guidance could push the 10-year Treasury yield higher in the near term but not a lot, as much is already priced in (see Chart 3 again). Subsequently, we project that the impact from guidance will stall as the actual hiking process advances. In 2023, we expect guidance to unwind and reduce the impact of actual rate hikes by up to 70 bps.
- Finally, given the high level of Fed Treasury holdings we estimate that a total reduction of $925 billion by the end of 2023 would add just 10 to 15 bps to the 10-year Treasury yield.

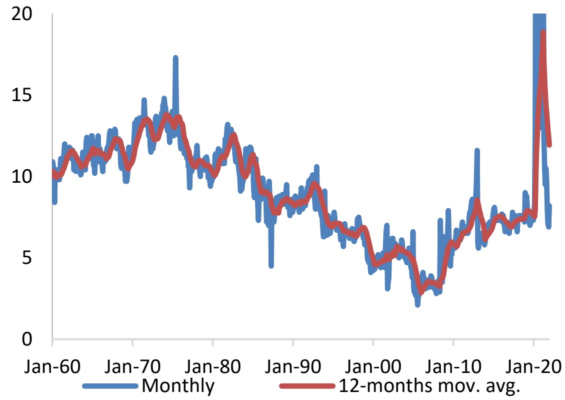
The yield environment

We see upside and downside risks to our base scenario of Fed tightening and, thus, the 10-year Treasury yield. Furthermore, the analysis so far assumes that all other factors that impact yields remain unchanged, especially those that have shaped the low yield environment of the last two decades.

In our view, higher savings and low long-term inflation expectations have been key factors responsible for the low yield environment of the last two decades. In 2005, former Fed Chairman Bernanke first talked about a "savings glut,"[10] referring to the excess global savings that pushed into the US. Since the financial crisis, however, household savings in the US have also been rising (see Chart 4).

Chart 4: US household savings

% of disposable personal income

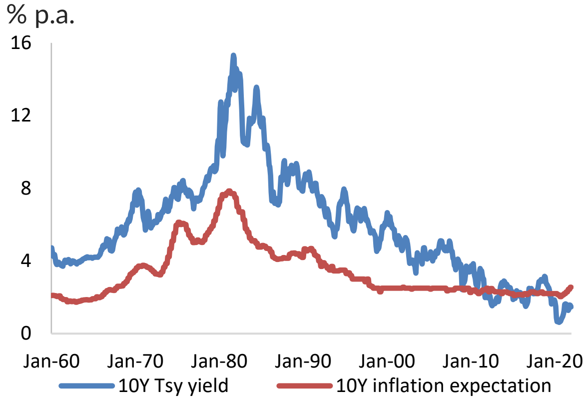


Source: US Bureau of Economic Analysis [11]

This rise in savings has been accompanied by low and stable long-term inflation expectations (see Chart 5).

Chart 5: Long-term inflation expectation and 10-year Treasury yield

% p.a.



Source: Board of Governors of the Federal Reserve System and Federal Reserve Bank of Philadelphia [12]

People are unlikely to save more if inflation expectations are rising. On the other hand, if people spend less and save more, inflation is unlikely to rise. The question is whether the steady state of high savings and low inflation expectations of the last 20 years will endure or if it is about to change.

Both survey- and market-based long-term inflation expectations have recently moved up but so far remain in the range of the last 20 years (see Chart 5).[13] The household savings rate is declining after the surge during the Corona crisis but has not fallen below the levels before the Pandemic (see Chart 4 again).

We think that actual inflation will take time to decline and we also expect that savings may temporarily move lower. Our main scenario, however, is based on the view that long-term inflation expectations will remain anchored with a cap around 3% and that savings will stay elevated.

This base scenario rests on our view that Fed tightening plus the fading of Corona distortions and supply-bottlenecks will reduce inflation later this year and cap long-term inflation expectations. We also expect that the aging of the population will keep precautionary savings high and that the fiscal deficit will not offset private savings.[14]

If we are right, 10-year Treasury yields will probably move higher than what swap forwards imply but stay in the range of the last 20 years. Fed tightening would move the 10-year Treasury yield from the low-end of the range toward the high end of the range, which we estimate is around 3%.

If we are wrong, rising inflation expectations and falling savings would push the whole range higher and force the Fed to tighten even more. The risk of that happening is not marginal, in our view.

In a second note (*Corporate bond and CLO spreads to diverge*) we look at the impact of Fed tightening on credit spreads (https://www.zaisgroup.com/corporate-bond-clo-spreads.html).

More information

As always, we are available to discuss our views with you. Please contact your Client Relations representative at +1 732 978 9722 or zais.clientrelations@zaisgroup.com

[1]https://www.federalreserve.gov/newsevents/pressreleases/monetary20220126a.htm

[2] Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis; February 12, 2022.

https://fred.stlouisfed.org/series/DGS10

U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items in U.S. City Average [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis; February 12, 2022.

https://fred.stlouisfed.org/series/CPIAUCSL

[3] Bloomberg; US swap forward curve; Date: February 14, 2022; Bloomberg function key: FWCM.

[4] "We know that the economy is in a very different place than it was when we began raising rates in 2015. Specifically, the economy is now much stronger. The labor market is far stronger. Inflation is running well above our 2 percent target, much higher than it was at that time. And these differences are likely to have important implications for the appropriate pace of policy adjustments." Transcript of Chair Powell's Press Conference, January 26, 2022, page 5.

https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20220126.pdf

[5] "Total nonfarm payroll employment rose by 467,000 in January, and the unemployment rate was little changed at 4.0 percent, the U.S. Bureau

of Labor Statistics reported today." U.S. Bureau of Labor Statistics; February 4, 2022.

https://www.bls.gov/news.release/empsit.nr0.htm

"The Consumer Price Index for All Urban Consumers (CPI-U) increased 0.6 percent in January on a seasonally adjusted basis, the U.S. Bureau of Labor Statistics reported today. Over the last 12 months, the all items index increased 7.5 percent before seasonal adjustment." U.S. Bureau of Labor Statistics; February 10, 2022.

https://www.bls.gov/news.release/cpi.nr0.htm

[6] "And I stress again that we'll be humble and nimble. We're going to have to navigate cross-currents and actually two-sided risks now. So -- and I'll say also that we're going to be guided by the data. In fact, what I'll say is that we're going to be led by the incoming data and the evolving outlook, which we'll try to communicate as clearly as possible, moving steadily in transparency -- transparently." Transcript of Chair Powell's Press Conference, January 26, 2022, page 5.

https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20220126.pdf

[7] See also ZAIS Insight "The Fed is debt constrained" October 2021.

https://www.zaisgroup.com/fed-is-debt-constrained.html

[8] Federal Reserve Bank of New York; System Open Market Account Holdings of Domestic Securities.

https://www.newyorkfed.org/markets/soma-holdings

[9] Fed funds guidance is proxied by the 6-months T-bill rate 6-months forward minus the Fed funds rate.

Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 1-Year Constant Maturity [DGS1], retrieved from FRED, Federal Reserve Bank of St. Louis; February 12, 2022.

https://fred.stlouisfed.org/series/DGS1

Board of Governors of the Federal Reserve System (US), 6-Month Treasury Bill Secondary Market Rate [DTB6], retrieved from FRED, Federal Reserve Bank of St. Louis; February 13, 2022.

https://fred.stlouisfed.org/series/DTB6

Board of Governors of the Federal Reserve System (US), Federal Funds Effective Rate [DFF], retrieved from FRED, Federal Reserve Bank of St. Louis; February 12, 2022.

https://fred.stlouisfed.org/series/DFF

[10] Remarks by Governor Ben S. Bernanke
At the Sandridge Lecture, Virginia Association of Economists, Richmond, Virginia, March 10, 2005.

https://www.federalreserve.gov/boarddocs/speeches/2005/200503102/default.htm

[11] U.S. Bureau of Economic Analysis, Personal Saving Rate [PSAVERT], retrieved from FRED, Federal Reserve Bank of St. Louis; February 10, 2022.

https://fred.stlouisfed.org/series/PSAVERT

[12] Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity [GS10], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GS10, February 9, 2022.

Federal Reserve Bank of Philadelphia Fed; Survey of Professional Forecasters; 10-Year CPI Inflation Rate (CPI10)

https://www.philadelphiafed.org/surveys-and-data/cpi10

[13] See also the 10-year breakeven inflation rate as a measure of market-based long-term inflation expectations. Federal Reserve Bank of St. Louis, 10-Year Breakeven Inflation Rate [T10YIE], retrieved from FRED, Federal Reserve Bank of St. Louis; February 10, 2022.

https://fred.stlouisfed.org/series/T10YIE

[14] The Federal Government budget deficit over the last six months (August 2021 to January 2022) was $491.1 billion, 3% less than the deficit over the same six months two years earlier just before the outbreak of the Corona pandemic.

U.S. Department of the Treasury. Fiscal Service, Federal Surplus or Deficit [-] [MTSDS133FMS], retrieved from FRED, Federal Reserve Bank of St. Louis; February 12, 2022.

https://fred.stlouisfed.org/series/MTSDS133FMS

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