

FOMC gains credibility with markets*

Financial markets are finding the Fed's plans for gradually raising interest rates more credible than before, which is an important factor in the recent jump in bond yields. In this report, we'll explore that rise and other issues at the intersection of the Fed, the macro outlook, and financial markets.

Looking back to March

Before looking ahead to this week's FOMC meeting, let's review what occurred at the previous meeting in late March. As expected, the FOMC:

- increased interest rates by a quarter-point, with the upper end of the target range raised to 1¾%; there were no dissents among voting members;
- strengthened their forecasts for GDP and labor markets
- revised up slightly their inflation forecasts for 2019 and 2020
- and in some cases revised their expectations to show a faster pace of rate hikes through 2020. Their median forecasts are closer to ours, with the same level of the funds rate in 2020 — 3½% — as in our base forecast
- they continued to characterize the risks to the outlook as "roughly balanced";
- with respect to the near-term rate outlook, FOMC members generally anticipated that either 3 or 4 quarter-point rate hikes in 2018 would be appropriate, close to our base forecast for a total of 4 rate hikes this year

Key points

- Bond yields have jumped by a moderate amount over the past few weeks, in part reflecting investors' perceptions that Fed forecasts for growth, inflation, and interest rates are credible. The upturn in bond yields has been influenced by indications that inflation is rising, and a greater appreciation of upside risks to inflation. Bond yields have also risen in

other developed regions, reflecting a stronger outlook for global growth.

- There is a case for a rate hike by the Fed at this week's meeting, but our expectation is that they will decide to wait until June for the next rate hike.
- Beyond May, we continue to anticipate a total of 4 rate hikes this year and additional rate hikes in subsequent years that will take the upper end of the funds-rate target to 3½% in 2020.
- In terms of the macroeconomic backdrop for Fed rate policy, real growth is likely to remain above potential, resulting in more pressure on labor markets and reinforcing expectations that inflation will rise to 2% on a sustained basis. As always, there are risks to the outlook, including higher energy prices and geo-political factors, among others.

Bond yields jump?

Bond yields have jumped over the past few weeks. Last week the benchmark 10-year Treasury yield briefly rose above 3% for the first time in about 4 years before easing late last week, and the 2-year yield has risen to nearly 2.50%, the first time at those levels since 2008.

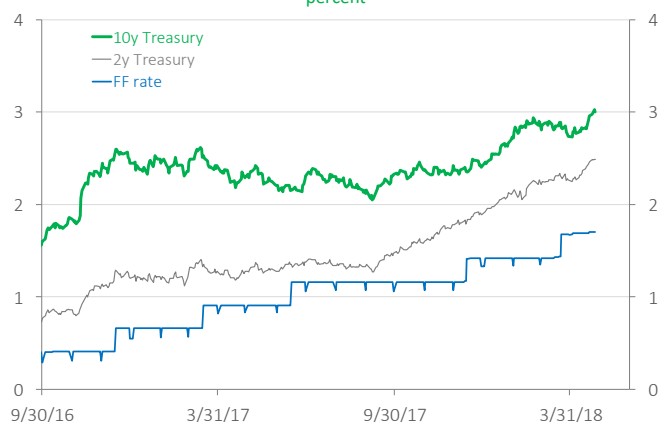
Two observations help to put the recent firming of bond yields in proper context.

1. The increase in the 10-year yield is not that large in historical context, indeed, as recently as late February the 10-year yield was above 2.90%.
2. The firming in bond yields was not unexpected — for some time, we have expected that bond yields would rise, with the 10-year Treasury yield projected to rise above 3.70% in our forecast in 2020.

* These notes are based upon our presentation for MA's April 30, 2018 Pre-FOMC Briefing.

Please see the important disclaimer on the last page of this report.

Interest Rates: Treasury Yields and FF Rate
percent



Several factors contributed to the firming in yields:

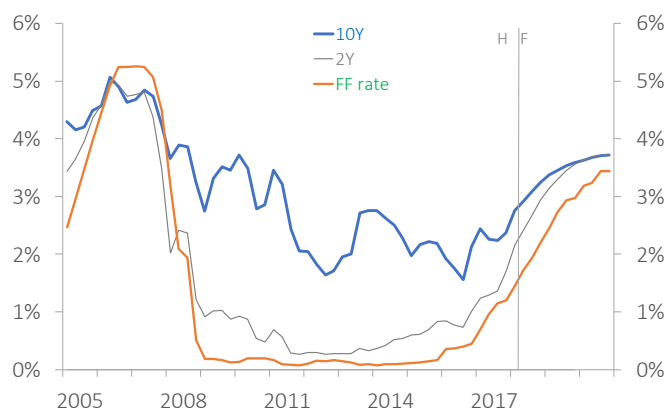
- Market expectations for Fed rate hikes have been raised
- Inflation data have firmed and inflation forecasts have been raised
- FOMC members raised their inflation forecasts while simultaneously signaling that downside risks for inflation are less prevalent.
- Global growth forecasts have been revised, as evidenced by the IMF forecast published in mid-April.

Bond yields poised to keep trending up

In the next few sections, we will flush out several of the factors that are contributing to the rise in bond yields.

The chart below shows our forecasts for the 2-year and 10-year yields, and the funds rate, through 2020. The latest observations for those yields, near 2½ and a little

Treasury Yields



under 3%, respectively, match levels that we had previously projected to be reached around the middle of this year, in essence just a month or two later than has occurred.

In addition to the ongoing process of Fed rate hikes, several factors support our expectation that Treasury yields will drift up over the next few years, including

- Higher inflation premia
- Shrinkage in the Fed's balance sheet
- Increasing debt issuance to finance widening federal deficits.

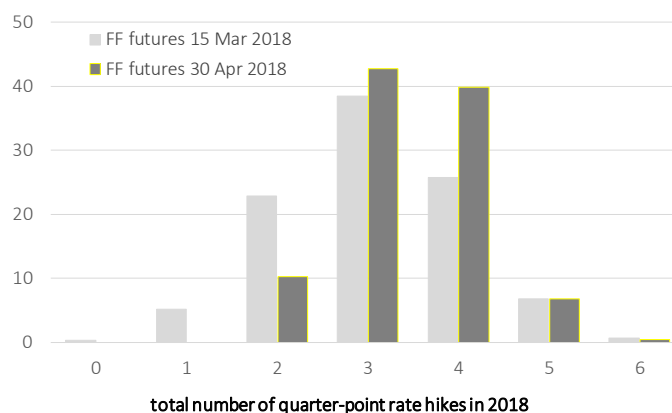
Market expectations for the Fed in 2018

Futures suggest that markets have sharply reduced the weight placed on the possibility that the Fed will raise rates only once or twice in 2018, as shown in the chart below. The light-gray bars show implied probabilities for the number of Fed rate hikes in 2018 as of trading in mid-March, while recent probabilities are indicated by the darker bars.

Back in March, futures suggested that the probability that there would be fewer than 3 rate hikes was nearly 30%, with roughly 40% probability assigned to 3 rate hikes and little over 30% to 4 or more.

As of this morning, futures suggest investors place a very low weight on the possibility that there will be only 1 or 2 rate hikes (just 10%), while the probability associated with 3 rate hikes remains close to 40%. The market probability of 4 or more has risen from about 1/3 to nearly 1/2.

Probabilities for Fed rate hikes, 2018



The modal probability is split between 3 and 4 rate hikes, as markets are clearly moving toward more weight on 4, as in our forecast.

Market finds FOMC forecasts more credible

Why is this? Why are markets increasingly pricing in the possibility of 4 hikes in 2018?

There are several factors, which we can loosely summarize as markets find Fed forecasts more credible, especially for inflation.

Inflation data are firming, inflation forecasts have been revised up, and the risks of overshooting 2% inflation have risen.

Increases in energy prices and indications of strong growth that will result in further tightening in labor markets have contributed to higher inflation forecasts. Last Friday's report on the Employment Cost Index also suggested that there is some firming in labor costs, as one would expect if tight labor markets were to result in more upward pressure on broad inflation trends.

The core PCE price index rose at a 2.5% annual rate in the first quarter. That figure likely overstates slightly the near-term momentum in core inflation, but it is a sign that the trend in core inflation is firming. The reason it may overstate the near-term trend is because of a sharp jump in the price index for hospital services over January and February.

Four out of the last six monthly readings on core PCE inflation have been at a pace that, if continued, would imply annual inflation at or above 2%.

Core PCE inflation
(12mo % ch)



PCE inflation
(12mo % ch)



This morning BEA reported that the core PCE price index rose approximately 0.2% in March, as the 12-month change jumped three-tenths to 1.9%, as we had anticipated. Today's report is consistent with our prior expectation that the 12-month measure of core PCE inflation will reach 2.0% within the next few months, and will exceed 2% modestly later this year.

FOMC inflation forecasts nudged up in March

In March, median FOMC forecasts for inflation were nudged up. They now anticipate core PCE inflation close to 2% this year and slightly above 2% in 2019 and 2020, as shown in the bottom half of the table on the next page. The forecasts for 2019 and 2020 were each revised up one-tenth.

We think that there is potential for even more inflation than FOMC median forecasts. Furthermore, forecast assumptions for energy prices are poised to be revised up in response to recent developments, including strong demand. There could be some pass-through into core inflation from higher energy prices, adding another source of upside pressure on inflation.

Indeed, we think there are risks on both sides to our forecast that core inflation will continue to trend up, reaching 2.3% in 2020.

Returning to the FOMC, not only did members edge up their inflation forecasts in March, they also continued to revise their assessments in the direction of diminished downside risks and increasing upside risks to their forecasts.

Economic projections from the FOMC* and MA by IHS

	2018	2019	2020	Long run
GDP				
FOMC (3/21/2018)	2.7	2.4	2.0	1.8
MA current	2.8	2.7	1.9	2.0
Unemployment rate				
FOMC	3.8	3.6	3.6	4.5
MA	3.8	3.6	3.7	4.7
PCE inflation				
FOMC	1.9	2.0	2.1	2.0
MA	1.9	2.1	2.5	2.0
Core PCE inflation				
FOMC	1.9	2.1	2.1	n/a
MA	2.2	2.2	2.3	2.0

* FOMC forecasts are medians

The chart below shows, in the dark blue bars, the number of FOMC members who view risks to their inflation forecasts to be weighted to the upside, while the light blue bars record the number who view risks to their inflation forecasts to be weighted to the downside.

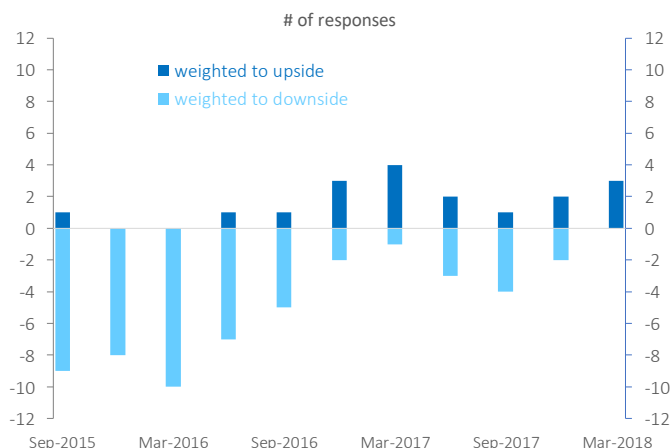
The pair of developments — higher inflation forecasts and a sense among a few FOMC members that the balance of risks is shifting to the upside — reflect firming in recent data and greater confidence in a strong growth outlook that will put more pressure on labor markets.

Upside risks to FOMC inflation forecasts

The chart below provides a sense of the “gap” between our core PCE inflation forecast and the median forecasts from FOMC members.

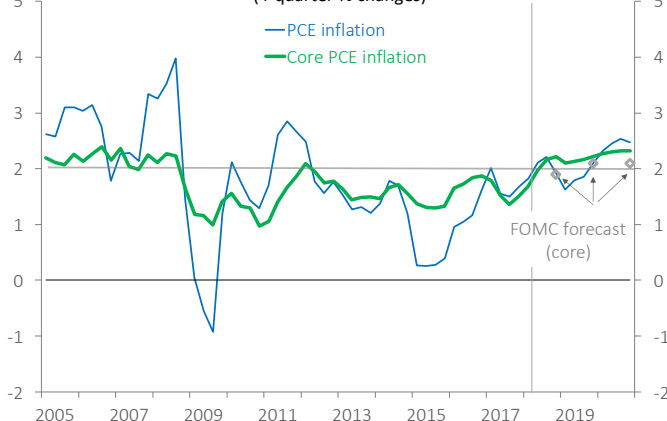
The gap is not large quantitatively, but in the context of forecasts that inflation will rise a little above 2%, the Fed’s long-run inflation target, even a few tenths of a percentage point more inflation in the forecast can boost expectations for the path of interest rates and the pace of Fed rate hikes

FOMC assessments of inflation risks



Inflation: PCE

(4-quarter % changes)



Stronger growth, lower unemployment

In March, FOMC members also revised their forecasts in the direction of stronger GDP growth and a lower path for the unemployment rate.

Forecasts for 2018 and 2019 GDP growth were revised up by about a quarter point, while forecasts for unemployment in 2019 and 2020 were revised down by 3 and 4 tenths, respectively. Median FOMC forecasts for unemployment forecasts are comparable to ours.

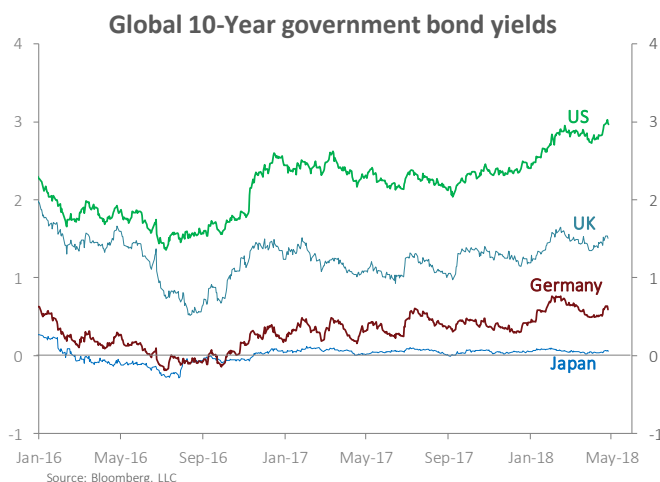
Global government bond yields

Higher global government bond yields have reinforced the upward pressure on Treasury yields. 10-year German bonds are earning around 0.6%, up about 10 basis points over the last few weeks. Swiss bond yields, not shown in the chart below, have risen above zero.

IMF upgrades global outlook

The latest uptick in foreign bond yields occurred shortly after the IMF released stronger forecasts of global GDP growth.

In the *World Economic Outlook*, published about two weeks ago, the IMF projected that global growth would strengthen to nearly 4% in 2018 and 2019. Excess capacity in the Eurozone is expected to shrink, aided by accommodative monetary policy. The IMF acknowledged that expansionary fiscal policy will help push the US economy well past full employment. Outlooks for emerging markets were also upgraded, including for commodity exporting regions.



May 1-2 FOMC meeting

There is a case for a rate hike at this week's meeting, based on strong growth forecasts and signs that inflation is firming, with more firming expected over the medium term.

However, it appears that most FOMC members are comfortable with maintaining a gradual pace of rate hikes, suggesting that the Committee is likely to remain on hold at this meeting, with the next rate hike in June.

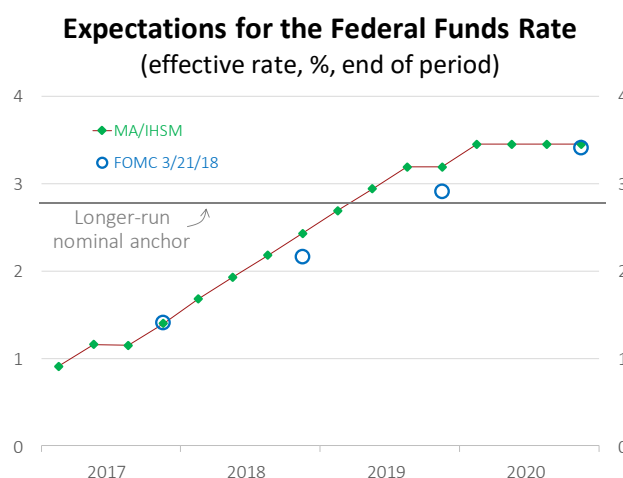
We would not be surprised to see strengthening of the language related to inflation in the FOMC's post-meeting statement on Wednesday afternoon.

Our expectation, assuming no rate hike this week, is that market reaction will be relatively muted. It would get markets' attention if the so-called "balance of risks" statement were to be changed to reflect risks weighted to the upside.

On balance, we expect this week's developments to reinforce our expectation for a rate hike in June and a total of 4 rate hikes in 2018.

As shown in the chart below, we expect the funds rate target to rise at a gradual pace through 2019 and into 2020, with the upper end of the target range projected to reach 3½% in 2020.

We have made no change to our expectation for where the funds rate is headed, but given recent developments mostly on the inflation front, we did make a minor adjustment to pull forward rate hikes in late 2019 and in 2020, so that we show getting to 3½% a few months earlier.



FOMC members revised up their expectations for the pace of rate hikes at the time of their policy meeting in March. Their forecasts are now closer to ours, but they show a slightly slower pace of rate hikes than in our forecast.

What markets expect: 2018

Where does that leave us relative to investors? Based on trading in fed funds futures, we think investors have not revised up their expectations for Fed rate policy in 2018 sufficiently.

Investor sentiment puts nearly equal weight on either 3 or 4 rate hikes this year, with the mean squarely in the middle between 3 and 4. We think probabilities are more symmetrically distributed around our modal forecast for 4 rate hikes this year.

As an example, we believe there is roughly a 30% probability of more than 4 rate hikes this year, versus investor expectations of a 10% probability.

Will there be >4 rate hikes in 2018?

What could give rise to even more than 4 rate hikes in 2018?

The mantra of monetary policy, especially today, is "inflation, inflation, inflation". If inflation simply rises gradually to 2%, perhaps modestly exceeding that pace by a couple of tenths — say to 2.1% or 2.2% — without indications that a rise to say 2.5% or higher is imminent, then the FOMC will likely stick with 4 rate hikes in 2018.

However, there is a real risk, reinforced by recent increases in energy prices and the possibility that tariff

and other trade actions will add to the effects of a soft dollar and push up import prices that could spill over into domestic inflation, and that forecasts for PCE inflation could rise more significantly beyond 2%. If that happens, we'd have to entertain the possibility of 5 or even 6 rate hikes in 2018, or a faster pace of rate hikes in 2019.

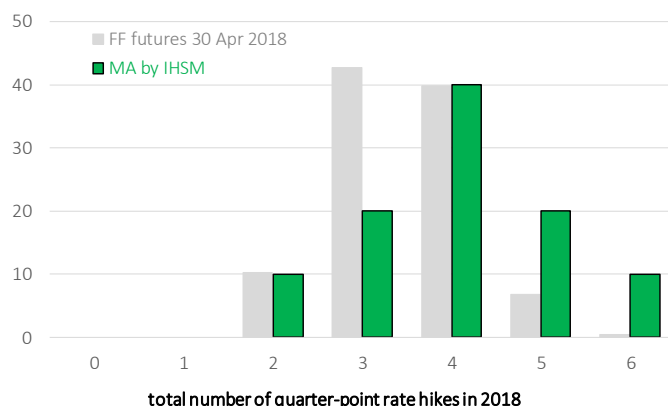
There has been some talk, including by FOMC members, that financial excesses could develop. The usual suspects are asset valuations, including for some sectors within commercial real estate. In our view, the risk of financial excesses is sufficiently moderate at this stage, and the financial sector, especially banks, are sufficiently better capitalized (and their liquidity facilities have been strengthened), that the risk of substantial excesses that could result in financial contraction is still modest. As a result, we believe financial excesses are not, for now at least, a major consideration with respect to interest-rate policy.

It's not only about getting to 2%, but how you get there that will influence policymakers

President Harker put it well several weeks ago when he stressed that, when it comes to thinking about inflation and the positioning of monetary policy, it not just about getting inflation to 2%, but the way you get to 2% inflation:

"If inflation goes above 2%, that OK by me. It's not about the level of inflation either. It's about the acceleration or deceleration of inflation. Right now we're creeping up to 2%. If we start to see acceleration, then I'd think differently. But if we're just going to creep up, and maybe a little beyond 2% is what we're currently forecasting, before coming back to trend, which would be 2%, that's OK. That's actually, I think, a healthy thing for the economy. But if we see this acceleration—and there are a lot of other factors that could come in play, right, like trade tariffs and other things that may change that picture — we have to react accordingly." (Patrick Harker, Wall Street Journal, March 29, 2018)

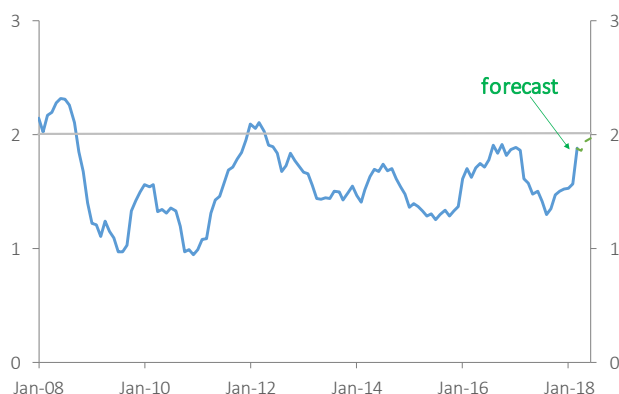
Probabilities for Fed rate hikes, 2018



Below, we reprise the chart from before showing our near-term projection for 12-month core PCE inflation through June. We leave it to you to judge — or perhaps to President Harker! — whether that represents enough of an “acceleration” of inflation to shift his thinking, and that of other FOMC members, about the appropriate pace of rate hikes.

Either way, it is fair to view the risks to the rate outlook as shifting up, especially as downside risks have ebbed.

Core PCE inflation
(12mo % ch)



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