Ken Matheny
ken.matheny@ihsmarkit.com

Chris Varvares
chris.varvares@ihsmarkit.com

MACROECONOMIC ADVISERS
By IHS Markit

Fed Views

29 October 2019

Close to the end of the easing cycle*

Introduction

Our outlook for Fed interest rate policy is unchanged. We still think it probable but not a foregone conclusion that the Federal Open Market Committee (FOMC) will lower the federal funds rate target one more time this year. We penciled a December rate cut in our forecast. An earlier rate cut, at this week's meeting, is possible but would be unlikely to materially alter our economic outlook. Furthermore, we continue to anticipate that with healthy growth, tight labor markets, and firming inflation, there will be pressure on the Fed late next year to begin reversing its 2019 rate cuts. We are close to the end of this easing cycle.

Highlights

Before diving into the details, we offer a few highlights.

1. The economic outlook for the US remains a mostly favorable one, with solid growth, tight labor markets, and a sustained firming of inflation consistent with the Fed's 2% objective.
2. Risks to that outlook are present and are more elevated than in the past, but on balance they have not materially intensified or ebbed over the last 2 months.
3. Monetary accommodation since the start of 2019 is generating stimulative effects through easier financial conditions. Monetary stimulus has reinforced a healthy outlook for growth despite a global slowdown and elevated uncertainty over trade policy.
4. The FOMC is likely near the end of the current easing cycle, with some members signaling that it is now appropriate to take time to assess the impacts of monetary accommodation and consider when or even whether more accommodation is needed. Committee members have a range of views.
5. One more Fed rate cut is probable but not a foregone conclusion. We assume it will occur in December after a brief pause to assess recent developments, but we would not be surprised if the FOMC voted to cut in October. Rate cuts in both October and December are unlikely given the forecast.
6. There will be pressure eventually, probably in late 2020, to begin reversing 2019 rate cuts.

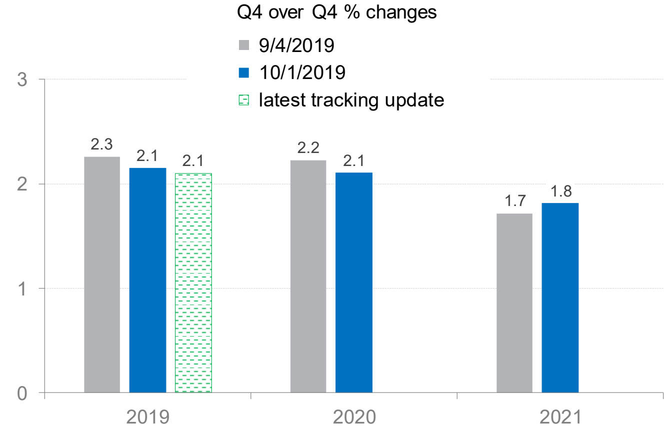
September FOMC meeting

At the last meeting on 18 September, the FOMC voted 7 to 3 to approve a quarter-point cut in the target for the federal funds rate, to a range of 1¾% to 2%. The cut was widely expected. We had anticipated the dissents, 2 of which preferred no rate cut and 1 favored a larger, 50 basis-point cut. The Minutes revealed that there was significant resistance to September's rate cut, which we believe included from 4 to 6 members of the 17-member committee.

The FOMC's post-meeting statement was updated to reflect strong growth in household spending alongside weakening in business fixed investment and exports.

Growth and inflation forecasts submitted by FOMC members were little revised from June. Some interest-rate projections were revised to show slightly lower trajectories than in June. Median projections anticipated no more rate cuts after September, but 8 of 17 members expected one more rate cut would be appro-

Real GDP forecast update
Q4 over Q4 % changes



Source: Macroeconomic Advisers by IHS Markit
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* These notes are based upon our presentation for MA's 28 October 2019 *Pre-FOMC Briefing*.

FOMC interest rate projections

(as of 18 Sep 2019, federal funds rate, %)

	2019	2020	2021	2022	Longer run
Median	1.88	1.88	2.13	2.38	2.50
Mean	1.85	1.88	2.07	2.45	2.57
Std. deviation	0.21	0.26	0.32	0.35	0.28

IHS Markit growth forecasts*

	2016	2017	2018	2019	2020	2021
World	**2.7**	**3.4**	**3.2**	**2.5**	**2.5**	**2.7**
OECD	1.7	2.5	2.3	1.6	1.4	1.5
Eurozone	1.9	2.7	1.9	1.1	0.8	1.0
China	6.7	6.7	6.6	6.2	5.7	5.6
Emerging Markets	4.3	4.9	4.8	4.1	4.2	4.3

*Real GDP % change (year/year) converted to USD using 2015 exchange rates.
Source: IHS Markit

priate either in late 2019 or in 2020, an indication that one more rate cut is possible in this easing cycle.

During the post-meeting press conference, Chairman Powell provided no clear forward guidance about the outlook for interest rates: policy would be assessed on a meeting-by-meeting basis. He hinted that the time was approaching when the FOMC might determine that it had provided sufficient accommodation to sustain the expansion and support a sustained rise of inflation.

Recent forecast developments: summary

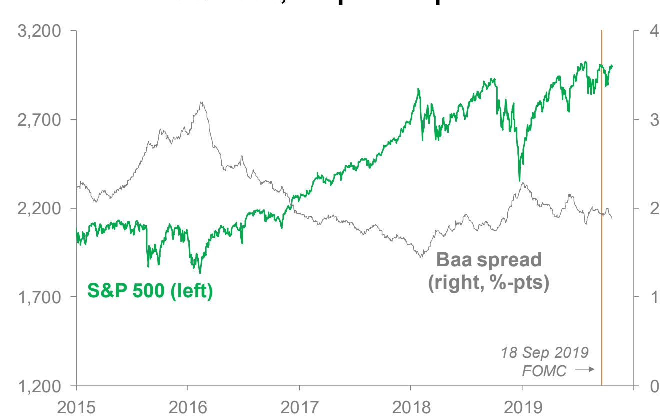
1. Forecasts from our international colleagues at IHS Markit project a sustained slowdown in global GDP growth to 2.5% through 2020, followed by a gradual firming.
2. Uncertainty about trade policy continues to weigh on business planning and dampen the growth outlooks globally and domestically.
3. Domestic political issues are another potential source of concern that could negatively impact sentiment in markets.
4. More encouragingly, a tentative agreement has been reached to end the strike against GM. Resumed production could result in a modest boost to GDP growth in early 2020 following slight negative impacts in the third and fourth quarters.
5. Relatedly, there are indications that manufacturing activity is bottoming out.
6. We did mark down our estimate of third-quarter GDP growth, but the underlying momentum for GDP growth remains healthy. As an example, we estimate that growth in final sales to domestic purchasers will strengthen to 2.7% in the fourth quarter from 1.8% in the third.
7. Revised data show that households enjoyed nearly $3 trillion more in real estate wealth as of the first quarter of 2019 than previously estimated, reinforcing the outlook for healthy growth in consumer spending.
8. The next few sections illustrate a few of these points.

Financial developments

Financial conditions remain highly accommodative in general. Equity prices, as measured by broad indices such as the S&P 500, have traded recently close to record highs. The move toward more accommodative monetary policy this year has provided substantial support to equity valuations and contributed to lower bond yields, especially in investment-grade sectors. Mortgage rates have fallen sharply since last year.

The dollar does remain strong on a broad, trade-weighted basis, though it has eased back in recent weeks. It is probable that the dollar would have been subject to even more upward pressure had monetary

S&P 500, corp Baa spread



Source: IHS Markit. All data are daily.

policy not turned more accommodative over the last several months.

Recent developments: housing

As evidence that easier financial conditions are generating stimulus, we can point to the housing sector, which has benefited from significantly lower mortgage rates. Since late 2018, the 30-year conventional mortgage rate has declined approximately 1¼ percentage points to less than 3.7%.

Home sales, housing permits, and single-family starts have each rebounded after weakening in 2018. Homebuilder sentiment is the strongest since early 2018. Home prices are continuing to rise as well.

We estimate that real residential investment, the portion of housing-related investment that enters GDP, rose at 5.6% annual rate in the third quarter. We expect an increase of 4.6% in the fourth quarter. Admittedly, residential investment is a relatively small component of GDP, accounting for about 4% of the latter.

Spending on consumer durables rose at a 14.6% annual rate over the past 6 months (through August), the largest such increase in approximately 5 years and up from a 2.7% decline over the 6 months through February.

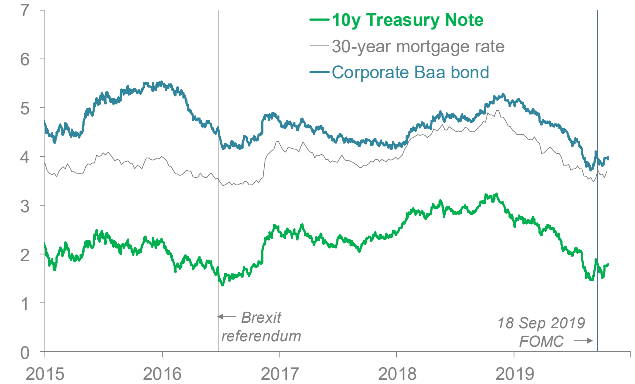
The easing in financial conditions has generated stimulative effects in other areas, including propping up equity markets, limiting the upward pressure on the dollar in foreign exchange markets, and incenting cost savings through refinancing activity not just for households, but also for governments and businesses.

Recent developments: manufacturing

The manufacturing sector has been an area of softness in recent months, held back by uncertainty over trade policy and downgraded assessments of global demand growth. There are tentative signs, however, that the manufacturing sector has bottomed out.

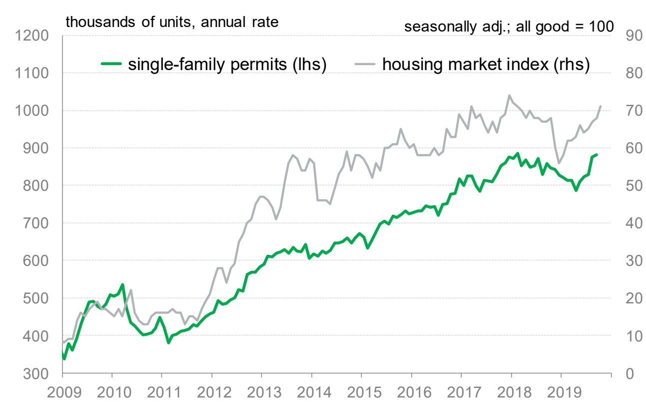
Within industrial production, manufacturing activity rose modestly on balance in recent months, resulting in annualized growth in the third quarter of 1.1%. That's hardly a strong figure, but at least it's positive. Domestic surveys of purchasing managers conducted by our IHS Markit colleagues also contain hints that the manufacturing sector is not in a prolonged contraction (charts on next page).

Bond yields
(%)



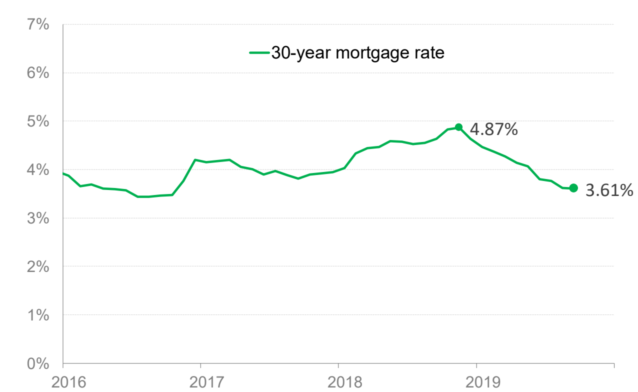
Source: IHS Markit. Data are daily, except mortgage rate is weekly. © 2019 IHS Markit

Housing indicators
monthly data



Source: Census, NAHB © 2019 IHS Markit

Housing indicators
monthly data



Source: FHLMC © 2019 IHS Markit

Our base macro outlook

Our outlook for the U.S. remains a favorable one, with trend-like GDP growth over the intermediate term, strong labor markets that continue to deliver historically low unemployment, and a gradual firming of core inflation.

Over the last few weeks we did mark down to 1.3% our estimate of third-quarter GDP growth, but that figure is influenced by temporary factors and the underlying trend is more healthy. The strike at GM, ongoing problems with Boeing's 737 MAX aircraft, and an ongoing flow-adjustment to inventory investment outside of aircraft held back growth in the third quarter.

Looking ahead, we expect GDP growth to improve to 2.0% in the fourth quarter, resulting in 2019 GDP growth of 2.1%. We expect GDP to grow 2.1% again in 2020, then slow to grow 1.8% in 2021 and 1.6% in 2022. The latter reflects drag from rising interest rates beginning in 2020.

The slowdown in the forecast puts GDP growth moderately below our estimate of the economy's trend potential growth rate of about 2%, so we show a gradual upturn of unemployment beginning in the second half of 2021.

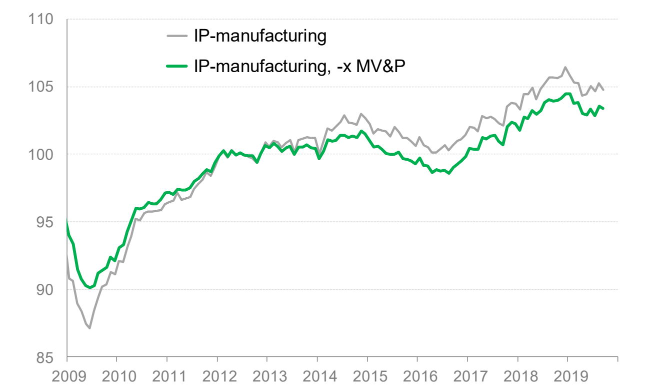
Core inflation on the basis of PCE has firmed of late, with 3-month annualized changes running recently above 2%. We expect the firming to be sustained, resulting in inflation at or slightly above 2% over the next few years. In our forecast, the four-quarter core PCE inflation rate rises to 2.2% in the first quarter of 2020. A portion of that upturn is temporary, as it reflects some pass-through of higher tariffs.

Key risks to the macro outlook

Significant risks to the outlook remain. Downside risks include those related to uncertainty over trade policy, geo-political issues, the global slowdown, and knock-on interruptions to business planning. Should uncertainties intensify, one area to watch will be whether firms begin to pull back on their heretofore strong hiring, reinforcing the slowdown in employment growth as tight labor markets push up against resource constraints.

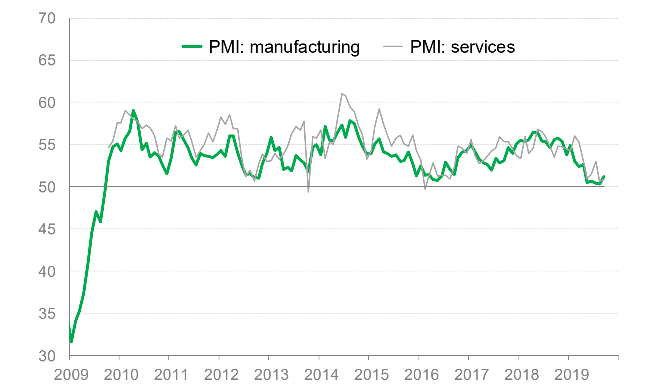
There is also risk on the fiscal front. The Bipartisan Budget Act of 2019 promised additional fiscal support to growth in 2020. However, much of the legislative

Manufacturing IP
monthly data, SA, 2012=100



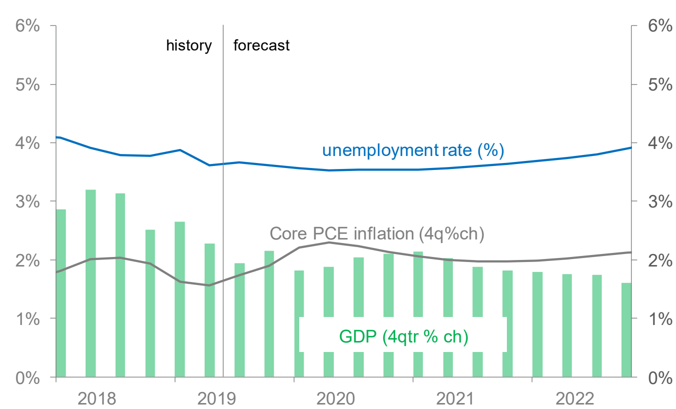
Source: Federal Reserve Board © 2019 IHS Markit

US PMI's
monthly data, SA, 50+ = expansion



Source: IHS Markit © 2019 IHS Markit

Forecast overview



Source: Macroeconomic Advisers By IHS Markit © 2019 IHS Markit work on the federal budget for 2020 remains in limbo, with spending currently influenced by a continuing resolution (CR) through 21 November. Areas of concern include:

- The possibility of battles over funding for Homeland Security and the "wall";
- The risk that a sequence of CR's extends FY19 spending levels through FY20, which would result in spending levels below our forecast assumptions;
- The latter could shave approximately ¼ percentage point from our 2020 GDP growth forecast, concentrated in H1-2020.

Upsides: trade negotiations, manufacturing, dollar

Another lens through which to assess forecast risks is provided by our recession probability model, described in a recent report. That model includes both financial and nonfinancial indicators, and suggests that the risk of recession as of October is moderately elevated at 23%.

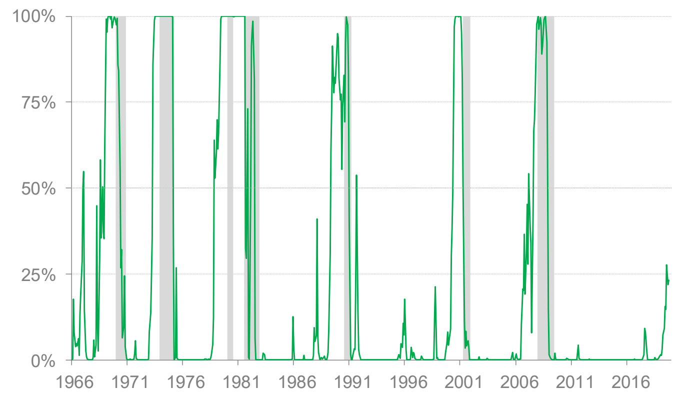
FOMC members: forecasts

In most respects, our economic forecasts are similar to those submitted by FOMC members in September. Like us, FOMC members generally expect GDP growth moderately above trend for the next 1 to 2 years, followed by a gradual easing to roughly trend or slightly below, resulting in low but eventually upward-drifting unemployment. Members generally project inflation to rise to 2% on a sustained basis within the next 2 years.

Relative to FOMC median projections, we expect a slightly higher path for core inflation.

A separate table to the right depicts FOMC members' qualitative assessments of uncertainty and risks to their forecasts. In general, they view uncertainties as similar to or higher than the average of the past 2 decades. They view risks to real activity to be mostly tilted to the downside. Inflation risks are broadly viewed as balanced with a few viewing inflation risks as titled to the downside. The recent firming of core inflation has increased policymakers' confidence in forecasts anticipating a rise of core inflation to 2%.

Probability of recession starting within 1 year



Source: IHS Markit   Last data plotted for Oct.   © 2019 IHS Markit

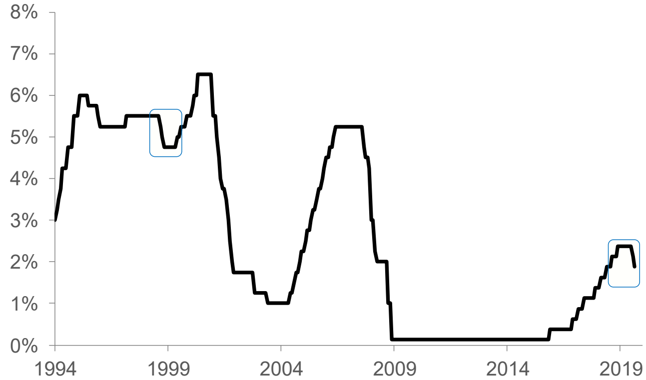
Forecasts:
FOMC* and Macroeconomic Advisers by IHS Markit**

	2019	2020	2021	2022	Long run
GDP (Q4/Q4)					
FOMC (18 Sep 2019)	2.2	2.0	1.9	1.8	1.9
Our forecast (1 Oct)	2.1	2.1	1.8	1.6	2.0
Unemployment rate (Q4)					
FOMC (18 Sep 2019)	3.7	3.7	3.8	3.9	4.2
Our forecast (1 Oct)	3.6	3.5	3.6	3.9	4.5
PCE inflation (Q4/Q4)					
FOMC (18 Sep 2019)	1.5	1.9	2.0	2.0	2.0
Our forecast (1 Oct)	1.7	1.9	1.9	2.3	2.0
Core PCE inflation (Q4/Q4)					
FOMC (18 Sep 2019)	1.8	1.9	2.0	2.0	
Our forecast (1 Oct)	1.9	2.1	2.0	2.1	2.0

* Medians of forecasts submitted by FOMC participants. ** Forecasts from Macroeconomic Advisers by IHS Markit

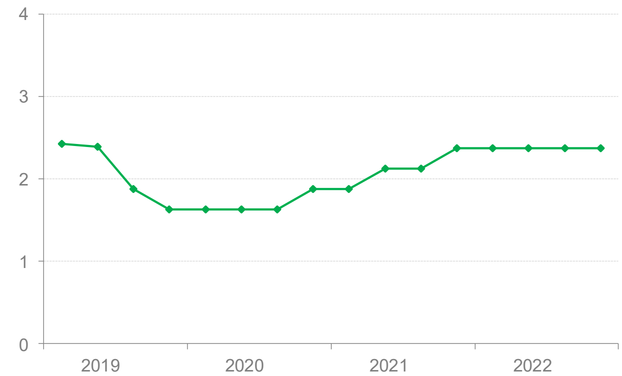
	Risk weighted in direction	Uncertainty (relative to historical averages)
GDP	downside	similar-higher
Unemployment	upside	similar-higher
PCE inflation	balanced-downside	similar-higher
Core PCE inflation	balanced-downside	similar-higher

Federal funds rate target
(%, end-of-month)



Source: Federal Reserve Board and Macroeconomic Advisers by IHS Markit

Fed interest-rate outlook
effective federal funds rate, %, end of period



Source: Macroeconomic Advisers by IHS Markit

"Fedspeak": key themes

The past couple of months have been an interesting time for Fed communication. There is a range of views and members have emphasized different concerns and different policy approaches. A few key themes have emerged:

1. Policymakers generally view the US economy as "in a good place."
2. Risks are the primary factor driving arguments for monetary accommodation.
3. There is a diversity of views on the FOMC about forecasts risks and the appropriate stance of policy.

From the Chairman on down, most FOMC members have emphasized that policy will be assessed on a meeting-by-meeting basis. Chairman Powell hinted recently that the time may be near when the FOMC will assess that they have added sufficient accommodation to balance risks to the forecast.

1998–99 as a model of 2019 and beyond

We have suggested that 2019 rate cuts share some similarities with those the Fed undertook in response to global and financial developments in 1998. Chairman Powell explicitly referenced that episode recently, noting that the Fed cut the funds rate 3 times over a relatively short period of time, then paused as the economy responded. Approximately 7 months later, beginning in June 1999, the Fed reversed course by raising rates, in essence deciding not to renew the insurance it had purchased against downside risks in the fall of 1998.

> *"The Fed cut, and then cut again, and then cut a third time…**The economy took that accommodation on board and gathered steam again, and the expansion continued**. So that's the spirit in which we're doing this"*
>
> Chairman Powell referring to 1998–99
> 8 October 2019

As a side note, in 1999 the Fed eventually raised the federal funds rate above the level it had been prior to the 1998 easing phase, as shown by one of the highlighted sections in the upper-left chart.

The Chairman's comments are a reminiscent of our forecast that expects there will be pressure beginning in late 2020 for the Fed to begin to reverse the 2019 rate cuts.

Our Fed interest-rate outlook

With that, we continue to view one more Fed rate cut as probable before the end of this year, followed beginning in late 2020 with a policy reversal that will see the funds rate raised back toward an approximately neutral setting, that is, a target funds rate near 2½% or slightly higher.

We have assumed that the FOMC will pause at this month's meeting to allow time to assess the impacts of previous rate cuts, then cut a final time at the December meeting. In light of ambiguous guidance from Fed leadership, we would not be particularly surprised if the final rate cut occurred this week instead of in December. Depending on the FOMC statement and guidance from the Chairman on Wednesday afternoon, an earlier rate cut at this week's FOMC meeting would be unlikely to imply a material change to our economic outlook.

We expect the upper end of the target range for the federal funds rate to end 2019 at 1¾%, then rise to 2% in late 2020 and reach 2½% in 2021.

Bond yields

As indicated by the upper-right chart, we expect bond yields to be subject to upward pressure over the next few years to reflect less accommodative monetary policy than is currently priced into futures and bond yields. A gradual rebound in term premia will reinforce upward pressure on bond yields.

On the latter point, updated guidance from the New York Fed on how proceeds from the Fed's securities portfolio will be reinvested suggests that the Fed's portfolio of term Treasury securities is likely to remain in the range of $1.8 trillion to $2.0 trillion over the next few years, a somewhat higher level than we had previously assumed. This revision suggests a slightly slower recovery in Treasury term premia as the Fed maintains a larger presence in longer maturity assets than had been expected. This is insufficient to change our expectation that bond yields will drift higher in coming years. The 10-year Treasury Note yield is projected to rise above 2% next year and above 3% in 2022.

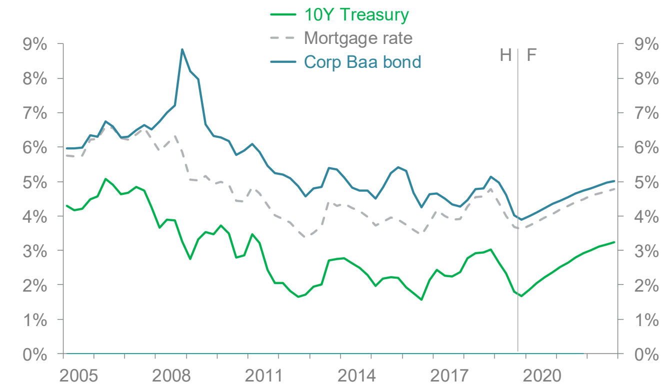
Liquidity, reserves management, and the Fed's balance sheet

Since mid-September, the Federal Reserve has injected large amounts of liquidity into the financial system. Why did it take this step, what are the impacts, and what might happen in the future?

What happened:

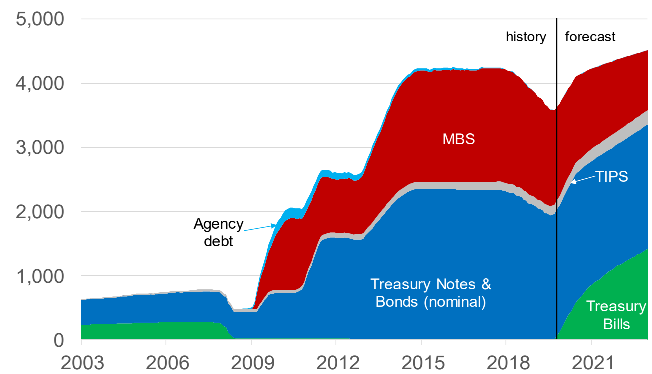
- The lower-right chart on this page shows the Secured Overnight Financing Rate, or SOFR, a volume-weighted median of Treasury repo rates. Charts on the next page show the federal funds rate and target range, and both the first and ninety-ninth percentiles of repo rates as reflected in the large volume of transactions underlying the calculation of SOFR. In mid-September, SOFR began to

Term yields (%)



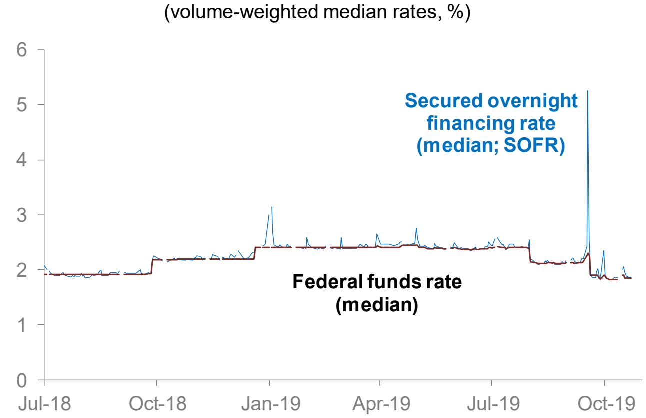
Source: Macroeconomic Advisers by IHS Markit

Federal Reserve securities holdings
(billions $)



Sources: Macroeconomic Advisers By IHS Markit, Federal Reserve Bank of New York, Federal Reserve

SOFR and Fed Funds
(volume-weighted median rates, %)



Source: Federal Reserve; Macroeconomic Advisers By IHS Markit trade somewhat above its recent range. On 17 September, SOFR spiked very sharply, with some repo rates as high as 10%, more than 7 percentage points above normal levels. In addition, the federal funds rate briefly moved slightly above the upper end of its target range, but that increase was much smaller than the spike in repo rates.

- A few factors appeared to contribute to the surge in short-term interest rates, including

  1. ongoing reductions in banks' reserve balances prompted by shrinkage in the Fed's balance sheet and ongoing expansion of the Fed's non-reserve liabilities;
  2. a large volume of corporate tax payments;
  3. a spike in settlements for Treasuries;
  4. on the surface, the spike in repo rates should have created a clear arbitrage opportunity for providers of liquidity;
  5. but some large banks who normally provided overnight liquidity hesitated to fully meet market demand, perhaps because they had shrunk their own reserves to their minimum desired levels;

Initial Fed response: The Fed instituted temporary repo operations to boost bank reserves, that is, to add liquidity. This calmed short-term funding markets, with overnight rates moderating back close to normal levels immediately.

2nd response: Earlier this month the Fed announced a series of steps to provide more lasting support to short-term funding markets. It:

- extended temporary repo operations through at least January 2020;
- announced a plan to permanently boost reserves through purchases of (short-term) Treasury Bills through at least the second quarter of 2020;
- indicated it would maintain the balance sheet at a size sufficient to provide for aggregate bank reserves of at least $1.5 trillion.

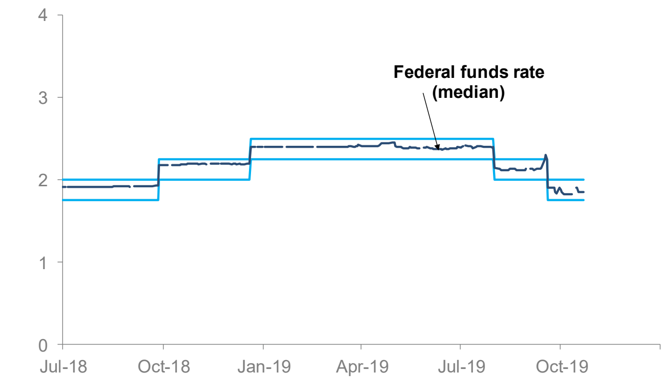
3rd response: Last week, the Fed expanded the size of repo operations to at least $120 billion for overnight repos. It also raised the limit on term repos. To date, the federal funds rate has traded within the Fed's target range and other overnight interest rates, including repo rates, have been much less volatile.

Will there be a 4th response? It is likely that the Fed will undertake additional steps and more long-lasting steps to insure sufficient liquidity remains. It might:

- expand the target for bank reserves to a level that insures a sufficient buffer to absorb temporary changes in the demand for liquidity. A target level for reserves in the range of $1.7 to $1.8 trillion is plausible;
- consider a standing repo facility, a more permanent facility to provide temporary liquidity whenever needed.

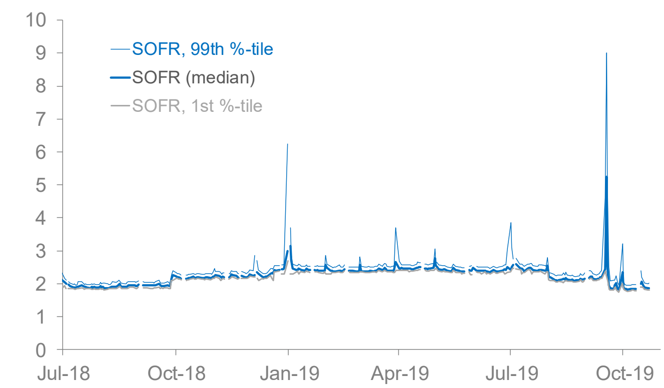
5th response?: Will the Fed consider moving toward a SOFR-targeting regime?

Federal funds rate: target range and median
(%)



Source: Federal Reserve, Macroeconomic Advisers By IHS Markit © 2019 IHS Markit

Secured overnight financing rate (SOFR)
(%; 1st and 99th percentiles, and median)



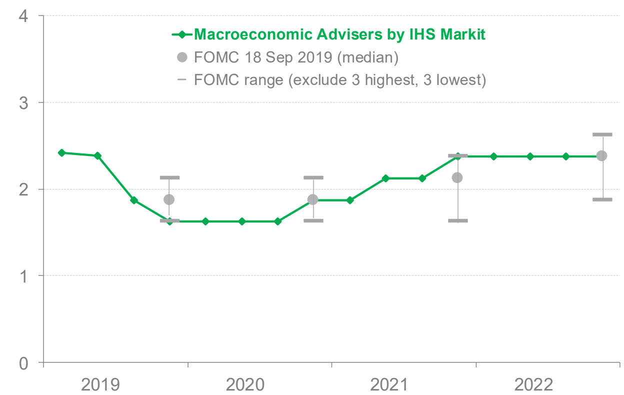
Source: Federal Reserve; Macroeconomic Advisers By IHS Markit © 2019 IHS Markit

Main points

1. Monetary accommodation is stimulating home sales and construction, spending on consumer durables, and gains in equity wealth.
2. Fiscal policy, for now, reinforces above-trend growth, but there are risks on the fiscal front.
3. Policy support from the Fed and from other Central Banks is helping to offset downside risks, including those reflected in less upbeat assessments of global growth.
4. Nevertheless, our base outlook remains favorable.
5. The FOMC is split about whether to inject more monetary accommodation at this time and the Chairman has pointedly not provided forward guidance while emphasizing that interest-rate policy will be assessed on a meeting-by-meeting basis.
6. Another rate cut this year is probable, either in October, as priced into futures, or in December, as assumed in our last forecast. The timing of such a rate cut will not have a material impact on our forecast that interest rates will head higher over the next few years.
7. The Fed is injecting liquidity and boosting reserve balances, and further steps are possible to support orderly conditions in short-term funding markets. Such operations, including accelerated purchases of Treasury Bills, are unlikely to have a material impact on our forecasts for bond yields.

Our Fed call & FOMC projections

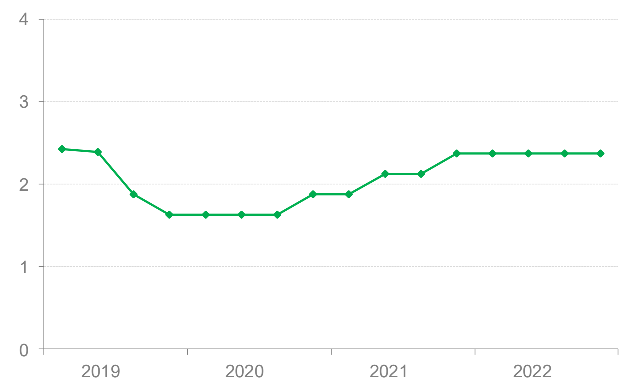
effective federal funds rate, %, end of period



Sources: Macroeconomic Advisers by IHS Markit; FOMC © 2019 IHS Markit.

Fed interest-rate outlook

effective federal funds rate, %, end of period



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