U.S. Economic Comment

- The interest rate path: insights from history
- Balance sheet plans come into clearer focus

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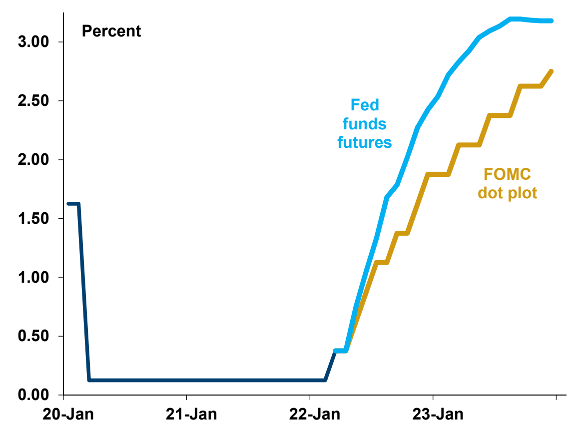
The Tightening Cycle

The latest dot plot published by the Federal Open Market Committee shows notable policy tightening, with the median dot indicating rate hikes totaling 175 basis points this year and 88 basis points next year, which would leave the federal funds rate at 2.75 percent at the end of 2023. Market participants apparently suspect that this degree of tightening will not be sufficient to tame inflation, as fed funds futures contracts show an expected fed funds rate of approximately 3.25 percent at the end of next year (chart, left).

Tightening cycles in the past can perhaps provide insight into which of these views is likely to be closer to the actual path of short-term rates in the months and quarters ahead. As we look at history, the market view is likely to be more accurate, and even it might be underestimating the tightening that might be needed. The chart on the right shows a long-term view of the Fed's target for the federal funds rate, and periods of policy tightening are easily identified and marked with two measures of policy tightening. The top number next to each cycle is the change in the federal funds rate from its trough to its peak; the bottom number is the largest change over any nine-month interval in that cycle. We show the largest nine-month change because the Fed's shift this year will occur within a nine-month time period (mid-March to mid-December).

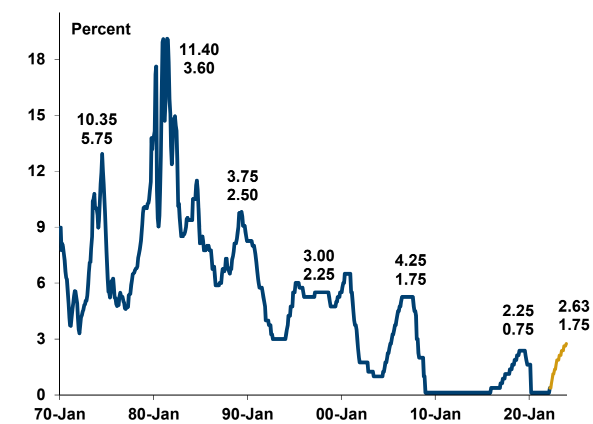
The magnitude of the total change suggested by the dot plot this year and next is on the light side compared with previous episodes, while the nine-month change built into the dot plot this year is in the low portion of the historical range. We would not push this comparison too far because equilibrium or neutral interest rates currently are lower than they were in the past. If the degree of policy change were measured relative to the neutral level, or if rate shifts were quoted in percentage change terms rather than absolute magnitudes, the Fed's expected moves this year and next would appear more aggressive. Still, this simple comparison suggests that expected changes from the Fed might not be especially bold.

Fed Funds Target Rate



Sources: Federal Reserve Board via Haver Analytics; Summary of Economic Projections, March 15-16 FOMC Meeting; Bloomberg

Fed Funds Rate*



** From January 1970 to August 1982, the chart shows the federal funds effective rate. From September 1982 thru March 2022, the chart shows the federal funds target rate. The gold portion of the line is the median expected fed funds rate of Fed officials for 2022 and 2023.*

Sources: Federal Reserve Board via Haver Analytics; Summary of Economic Projections, March 15-16 FOMC Meeting

The experience in the 1970s and early 1980s supports the view that monetary policy might need to be more aggressive than currently envisioned. Those episodes, in our view, are more similar to our current situation than are the experiences in the 1990s and the 2000s. Inflation was generally tame in the past 20 to 30 years, but it was the leading economic issue in the 1970s and early 1980s. Price pressure at that time involved problems on the energy front as well as wage pressure and elevated expectations of inflation. Wage pressure and inflation expectations were more ingrained in those years than they are now, but elements of each are present today. Tight labor markets are fueling wages, and near-term expectations of inflation have picked up; and of course, energy prices have surged.

Rate increases in 1972-74 and 1980-82 were wild, with trough-to-peak changes exceeding 10 percentage points and the maximum changes in nine-month periods well ahead of what is likely to be adopted this year. We do not mean to suggest a repeat of these performances, as the inflation problems were more severe in those episodes and the equilibrium or neutral level of rates was higher in the 1970s and early 1980s, and thus large policy moves were required. We use this experience to suggest that cycles in the past 20 to 30 years are perhaps not a good guide, as inflation was notably more subdued in those years. The experience in earlier years might provide some useful lessons.

The Balance Sheet

Fed officials will argue that a pronounced adjustment to short-term interest rates might not be necessary in this instance because the FOMC also will be utilizing another policy tool: a reduction in the size of the Fed's portfolio of securities (quantitative tightening).

Chair Powell noted in his March press briefing that the upcoming round of QT will resemble that in 2017-19, but it will be implemented at a faster pace and involve larger run-offs. The earlier effort was gradual, as it involved a five-step phase-in, with each step lasting three months. The Fed began with monthly redemptions of $6 billion for Treasury securities and $4 billion for mortgage-backed securities. Redemptions were then increased by these same amounts every three months until reaching maximum redemptions of $30 billion for Treasuries and $20 billion for MBS (table).

Fed Balance Sheet Reduction

	2017-19		2022-??	
Phase	**Treasuries**	**MBS**	**Treasuries**	**MBS**
1	6	4	30	15
2	12	8	45	25
3	18	12	60	35
4	24	16		
5	30	20		

Sources: Federal Open Market Committee; Daiwa Capital Markets America

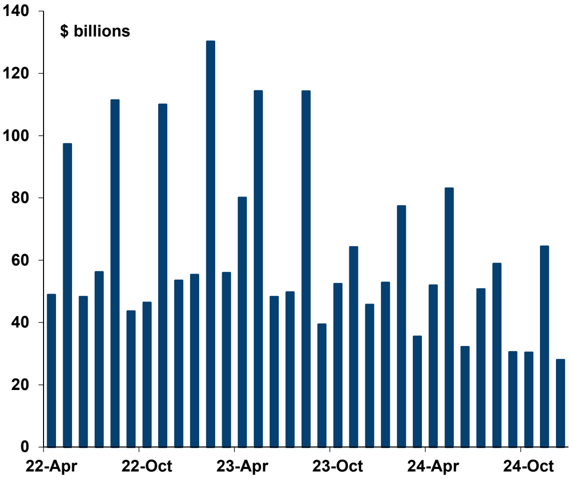
Given the Fed's desire to move at a faster pace, we would guess that the phase-in would last only two or three stages rather than five, and the lengths of each stage might be only one or two months rather than three. In fact, the minutes mentioned the possibility of a three-month phase-in. The minutes also noted that officials were leaning toward maximum monthly redemptions of $60 billion for Treasuries and $35 billion for MBS. Given these caps, and assuming a three-stage phase-in, the table shows a possible schedule for the new program (this is our guess, not an announcement from the FOMC).

Given the Fed's current portfolio, there will be many months when the volume of maturing Treasury coupon securities is below the $60 billion cap (chart, next page), which could slow the tightening process. However, the minutes noted that in such months the Fed could redeem holdings of Treasury bills to reach the planned reduction of $60 billion. The Fed currently holds $326 billion of Treasury bills, and drawing on these issues would allow redemptions of $60 billion per month into early 2025.

The volume of Fed activity in the MBS market in the past year or so suggests that mortgage repayments should exceed the final cap of $35 billion, although a slowdown in housing sales or refinancing activity in response to higher interest rates could lighten this flow and lead to months with less than $35 billion of redemptions. If progress in reducing the mortgage portfolio were to slow because of light repayments, Fed officials are open to outright sales of MBS, but only after balance sheet runoff was well under way.

The QT program will probably be in place for some time. The minutes implied that the program would continue until the volume of reserves in the banking system reached a level consistent with the FOMC's operating framework, which involves an "ample" volume of reserves in the banking system. Unfortunately, the Committee has not provided guidance on the meaning of "ample." In fact, we sense that officials have only a vague notion of how far to proceed with QT. They will be seeking to find, by trial and error, a comfortable volume of reserves relative to the size of the economy or banking system.

The Fed's Portfolio: Maturing Securities*



** Treasury securities (nominal coupon securities, floating-rate notes, and TIPS).*
Source: Federal Reserve Bank of New York

While the end game is uncertain, one can make a rough estimate of the magnitude of redemptions involved. The ratio of bank reserves to GDP stood at 17.5 percent at the end of last year. We assume (guess?) that officials will want reserves in the future to be close to the 6.5 percent of GDP that was in place at the end of the 2017-19 QT process. Increases in nominal GDP will help to reduce this ratio, as will increases in various Fed liabilities, such as currency in circulation. Still, the Fed will need to do considerable trimming, something in the neighborhood of $2 trillion. With redemptions totaling $95 billion per month (but possibly falling short of this magnitude in some months) the process will continue into 2024. We would not scoff at the view of QT continuing into 2025, as a number of factors could lengthen the process: redemptions might fall short of $95 billion per month, slow GDP growth could stifle the decline in the ratio of reserves-to-GDP, the Fed could decide to seek a ratio of less than 6.5 percent.

Review

Week of April 4, 2022	Actual	Consensus	Comments
Factory Orders (February)	**-0.5%**	**-0.6%**	A decline of 2.1% in new orders for durable goods dominated the report on factory orders in February. Much of the weakness was the result of a drop of 30.4% in commercial aircraft bookings, but this change followed a cumulative gain of 95% in the prior three months. Orders excluding transportation slipped 0.6%, only the second decline in the past 22 months. Bookings for nondurable goods rose 1.2%, heavily influenced by a price-led surge of 4.1% in the petroleum and coal category. Orders excluding petroleum and coal also contributed to the gain, with the increase of 0.3% marking the 21st advance in the past 22 months. However, the pickup most likely would translate to a decline after adjusting for price changes.
U.S. Trade Balance (February)	**-\$89.2 Billion (No Change)**	**-\$88.5 Billion (\$1.2 Billion Narrower Deficit)**	As in most other months in the current expansion, both exports and imports grew in February. The increase in exports was larger than that for imports in percentage change terms (1.8% versus 1.3%), but the shifts were approximately the same in absolute amounts, leaving little change in the overall trade deficit. While the deficit was little changed in February, it had deteriorated sharply in January (a widening of \$7.3 billion), leaving soft results for January and February combined and suggesting a large negative contribution from net exports to GDP growth in Q1, something in the neighborhood of 2.5 percentage points.
ISM Services Index (March)	**58.3% (+1.8 Pct. Pts.)**	**58.5% (+2.0 Pct. Pts.)**	The advance in the ISM services index in March reversed only a portion of the cumulative loss of 11.9 percentage points in the prior three months. The latest observation appeared unimpressive relative to other recent readings (a record of 68.4% in November of last year and an average of 62.5% for all of 2021), but it was in the upper end of the historical range for this series. The new orders component increased 4.0 percentage points to 60.1%. The change retraced most of the drop in the prior month and returned the index to the elevated range seen during most of 2021. The supplier deliveries component declined 2.8 percentage points to 63.4%. This drop was encouraging in that it suggested a modicum of easing in supply-chain constraints, but the level of the index overall indicated that problems persist.

Sources: U.S. Census Bureau (Factory Orders); Bureau of Economic Analysis (U.S. Trade Balance); Institute for Supply Management (ISM Services Index); Consensus forecasts are from Bloomberg

Preview

Week of April 11, 2022	Projected	Comments
CPI (March) (Tuesday)	**1.0% Total, 0.5% Core**	Available quotes suggest that energy prices surged in March, easily exceeding the jump of 3.5% in February. Food prices also appear likely to continue on their upward trajectory (average gain of 0.6% in the past 12 months, including a jump of 1.0% in February). In the core component, residential rents appear to be a source of emerging pressure, and continued supply disruptions and strong demand are likely to boost prices as well.
Federal Budget (March) (Tuesday)	**$190.0 Billion Deficit**	Federal revenues remained on a robust growth track in March, as available data suggest growth of approximately 18% from the same month last year, only moderately slower than the average pace of almost 26% in the first five months of the fiscal year. Outlays have eased from levels during the pandemic, but they are still elevated relative to historical norms. If the forecast is realized that deficit for the first six months of FY2022 would total $666 billion, down from $1.706 trillion in the same period in FY2021.
PPI (March) (Wednesday)	**1.0% Total, 0.5% Ex. Food & Energy**	Prices of wholesale energy products likely jumped again in March (average monthly increase of 2.5% in the past 12 months), and food prices are likely to remain under pressure (up 1.1% on average since February 2021). Higher input prices and supply disruptions are likely to sustain pressure on prices of goods excluding food and energy (up 0.8% per month in the past year), and increases in services prices have been brisk as well (average increase of 0.6% per month in the past year).
Retail Sales (March) (Thursday)	**0.5% Total, 0.8% Ex. Autos**	A decline in sales of new motor vehicles in March could constrain the auto component of the retail report, but activity at gasoline service stations is likely to provide an offset, as higher prices are likely to inflate nominal sales. Other areas are likely to grow only modestly, as individuals pivot toward spending on services, which receive scant coverage in this report.
Consumer Sentiment (April) (Thursday)	**59.0 (-0.7%)**	Elevated prices of gasoline and groceries suggest that consumer sentiment will register its eighth reading in the past nine months below the recession low of 71.8 in April 2020.
Industrial Production (March) (Friday)	**0.4%**	A firm gain in manufacturing payrolls raises the prospect of a strong contribution from the manufacturing sector to total industrial production in March. Increases in mining employment and the rotary rig count suggest a jump in the mining activity. A shift toward warmer-than-normal temperatures in March probably led to a drop in demand for heating services and an easing in utility output.

Source: Forecasts provided by Daiwa Capital Markets America

Economic Indicators

April 2022

Monday	Tuesday	Wednesday	Thursday	Friday
4	5	6	7	8
FACTORY ORDERS Dec 0.7% Jan 1.5% Feb -0.5%	**TRADE BALANCE** Dec -$82.0 billion Jan -$89.2 billion Feb -$89.2 billion **ISM SERVICES INDEX** Index Prices Jan 59.9 82.3 Feb 56.5 83.1 Mar 58.3 83.8	**FOMC MINUTES**	**UNEMPLOYMENT CLAIMS** Initial Continuing (Millions) Mar 12 0.177 1.524 Mar 19 0.166 1.506 Mar 26 0.171 1.523 Apr 02 0.166 N/A **CONSUMER CREDIT** Dec $20.7 billion Jan $8.9 billion Feb $41.8 billion	**WHOLESALE TRADE** Inventories Sales Dec 2.5% 0.1% Jan 1.2% 5.0% Feb 2.5% 1.7%
11	12	13	14	15
	NFIB SMALL BUSINESS OPTIMISM INDEX (6:00) Jan 97.1 Feb 95.7 Mar -- **CPI (8:30)** Total Core Jan 0.6% 0.6% Feb 0.8% 0.5% **Mar 1.0% 0.5%** **FEDERAL BUDGET (2:00)** 2022 2021 Jan $118.7B -$162.8B Feb -$216.6B -$310.9B **Mar -$190.0B** -$659.6B	**PPI (8:30)** Final Demand / Ex. Food & Energy Jan 1.2% 1.0% Feb 0.8% 0.2% **Mar 1.0% 0.5%**	**INITIAL CLAIMS (8:30)** **RETAIL SALES (8:30)** Total Ex.Autos Jan 4.9% 4.4% Feb 0.3% 0.2% **Mar 0.5% 0.8%** **IMPORT/EXPORT PRICES (8:30)** Non-petrol Imports / Nonagri. Exports Jan 1.3% 2.8% Feb 0.7% 3.0% Mar -- -- **CONSUMER SENTIMENT (10:00)** Feb 62.8 Mar 59.4 **Apr 59.0** **BUSINESS INVENTORIES (10:00)** Inventories Sales Dec 2.4% -0.7% Jan 1.3% 4.1% **Feb 1.3% 0.8%**	***GOOD FRIDAY*** **EMPIRE MFG (8:30)** Feb 3.1 Mar -11.8 Apr -- **IP & CAP-U (9:15)** IP Cap.Util. Jan 1.4% 77.3% Feb 0.5% 77.6% **Mar 0.4% 77.8%** **TIC DATA (4:00)** Total Net L-T Dec -$53.8B $114.5B Jan $294.2B $58.8B Feb -- --
18	19	20	21	22
NAHB HOUSING MARKET INDEX	**HOUSING STARTS**	**EXISTING HOME SALES** **BEIGE BOOK**	**INITIAL CLAIMS** **PHILY FED INDEX** **LEADING INDICATORS**	
25	26	27	28	29
CHICAGO FED NATIONAL ACTIVITY INDEX	**DURABLE GOODS ORDERS** **FHFA HOME PRICE INDEX** **S&P CORELOGIC CASE-SHILLER 20-CITY HOME PRICE INDEX** **CONSUMER CONFIDENCE** **NEW HOME SALES**	**U.S. INTERNATIONAL TRADE IN GOODS** **ADVANCE INVENTORIES** **PENDING HOME SALES**	**INITIAL CLAIMS** **GDP**	**EMPLOYMENT COST INDEX** **PERSONAL INCOME, CONSUMPTION, PCE PRICE INDEXES** **CHICAGO PURCHASING MANAGERS' INDEX** **REVISED CONSUMER SENTIMENT**

Forecasts in Bold.

Treasury Financing

April 2022

Monday	Tuesday	Wednesday	Thursday	Friday
4	5	6	7	8
AUCTION RESULTS: Rate Cover 13-week bills 0.670% 2.46 26-week bills 1.110% 3.29	**ANNOUNCE:** $35 billion 4-week bills for auction on April 7 $30 billion 8-week bills for auction on April 7 $30 billion 17-week CMBs for auction on April 6 **SETTLE:** $35 billion 4-week bills $30 billion 8-week bills $30 billion 17-week CMBs	**AUCTION RESULTS:** Rate Cover 17-week CMB 0.910% 3.70	**AUCTION RESULTS:** Rate Cover 4-week bills 0.205% 3.38 8-week bills 0.500% 2.96 **ANNOUNCE:** $105 billion 13-,26-week bills for auction on April 11 $46 billion 3-year notes for auction on April 11 $34 billion 10-year notes for auction on April 12 $20 billion 30-year bonds for auction on April 13 **SETTLE:** $105 billion 13-,26-week bills	
11	12	13	14	15
AUCTION: $105 billion 13-,26-week bills $46 billion 3-year notes	**AUCTION:** $34 billion 10-year notes **ANNOUNCE:** $35 billion* 4-week bills for auction on April 14 $30 billion* 8-week bills for auction on April 14 $30 billion* 17-week CMBs for auction on April 13 **SETTLE:** $35 billion 4-week bills $30 billion 8-week bills $30 billion 17-week CMBs	**AUCTION:** $30 billion* 17-week CMBs $20 billion 30-year bonds	**AUCTION:** $35 billion* 4-week bills $30 billion* 8-week bills **ANNOUNCE:** $105 billion* 13-,26-week bills for auction on April 18 $34 billion* 52-week bills for auction on April 19 $16 billion* 20-year bonds for auction on April 20 $20 billion* 5-year TIPS for auction on April 21 **SETTLE:** $105 billion 13-,26-week bills	***GOOD FRIDAY***
18	19	20	21	22
AUCTION: $105 billion* 13-,26-week bills **SETTLE:** $46 billion 3-year notes $34 billion 10-year notes $20 billion 30-year bonds	**AUCTION:** $34 billion* 52-week bills **ANNOUNCE:** $35 billion* 4-week bills for auction on April 21 $30 billion* 8-week bills for auction on April 21 $30 billion* 17-week CMBs for auction on April 20 **SETTLE:** $35 billion* 4-week bills $30 billion* 8-week bills $30 billion* 17-week CMBs	**AUCTION:** $30 billion* 17-week CMBs $16 billion* 20-year bonds	**AUCTION:** $35 billion* 4-week bills $30 billion* 8-week bills $20 billion* 5-year TIPS **ANNOUNCE:** $105 billion* 13-,26-week bills for auction on April 25 $24 billion* 2-year FRNs for auction on April 27 $48 billion* 2-year notes for auction on April 26 $49 billion* 5-year notes for auction on April 27 $44 billion* 7-year notes for auction on April 28 **SETTLE:** $105 billion* 13-,26-week bills $34 billion* 52-week bills	
25	26	27	28	29
AUCTION: $105 billion* 13-,26-week bills	**AUCTION:** $48 billion* 2-year notes **ANNOUNCE:** $35 billion* 4-week bills for auction on April 28 $30 billion* 8-week bills for auction on April 28 $30 billion* 17-week CMBs for auction on April 27 **SETTLE:** $35 billion* 4-week bills $30 billion* 8-week bills $30 billion* 17-week CMBs	**AUCTION:** $30 billion* 17-week CMBs $24 billion* 2-year FRNs $49 billion* 5-year notes	**AUCTION:** $35 billion* 4-week bills $30 billion* 8-week bills $44 billion* 7-year notes **ANNOUNCE:** $105 billion* 13-,26-week bills for auction on May 2 **SETTLE:** $105 billion* 13-,26-week bills	**SETTLE:** $20 billion* 5-year TIPS

**Estimate*