### Minutes of the Federal Open Market Committee November 1–2, 2022

A joint meeting of the Federal Open Market Committee and the Board of Governors of the Federal Reserve System was held in the offices of the Board of Governors on Tuesday, November 1, 2022, at 10:30 a.m. and continued on Wednesday, November 2, 2022, at 9:00 a.m. <sup>1</sup>

#### Attendance

Jerome H. Powell, Chair
John C. Williams, Vice Chair
Michael S. Barr
Michelle W. Bowman
Lael Brainard
James Bullard
Susan M. Collins
Lisa D. Cook
Esther L. George
Philip N. Jefferson
Loretta J. Mester
Christopher J. Waller

Charles L. Evans, Patrick Harker, Neel Kashkari, Lorie K. Logan, and Helen E. Mucciolo, Alternate Members of the Committee

Thomas I. Barkin, Raphael W. Bostic, and Mary C. Daly, Presidents of the Federal Reserve Banks of Richmond, Atlanta, and San Francisco, respectively

James A. Clouse, Secretary
Matthew M. Luecke, Deputy Secretary
Brian J. Bonis, Assistant Secretary
Michelle A. Smith, Assistant Secretary
Mark E. Van Der Weide, General Counsel
Trevor A. Reeve, Economist
Stacey Tevlin, Economist
Beth Anne Wilson, Economist

Shaghil Ahmed, Brian M. Doyle, Carlos Garriga, Joseph W. Gruber, David E. Lebow, Ellis W. Tallman, and William Wascher, Associate Economists

Patricia Zobel, Manager pro tem, System Open Market Account Jose Acosta, Senior Communications Analyst, Division of Information Technology, Board

Gene Amromin, Vice President, Federal Reserve Bank of Chicago

Alyssa Arute,<sup>2</sup> Manager, Division of Reserve Bank Operations and Payment Systems, Board

Kartik B. Athreya, Executive Vice President, Federal Reserve Bank of Richmond

Penelope A. Beattie, Section Chief, Office of the Secretary, Board

James P. Bergin, Deputy General Counsel, Federal Reserve Bank of New York

David Bowman, Senior Associate Director, Division of Monetary Affairs, Board

Isabel Cairó, Principal Economist, Division of Monetary Affairs, Board

Mark A. Carlson, Adviser, Division of Monetary Affairs, Board

Michele Cavallo, Principal Economist, Division of Monetary Affairs, Board

Satyajit Chatterjee, Vice President, Federal Reserve Bank of Philadelphia

Daniel Cooper, Vice President, Federal Reserve Bank of Boston

Stephanie E. Curcuru, Deputy Director, Division of International Finance, Board

Sally Davies,<sup>3</sup> Senior Adviser, Division of International Finance, Board

Burcu Duygan-Bump, Special Adviser to the Board, Division of Board Members, Board

Rochelle M. Edge, Deputy Director, Division of Monetary Affairs, Board

Eric M. Engen, Senior Associate Director, Division of Research and Statistics, Board

<sup>&</sup>lt;sup>1</sup> The Federal Open Market Committee is referenced as the "FOMC" and the "Committee" in these minutes; the Board of Governors of the Federal Reserve System is referenced as the "Board" in these minutes.

<sup>&</sup>lt;sup>2</sup> Attended through the discussion of developments in financial markets and open market operations.

<sup>&</sup>lt;sup>3</sup> Attended opening remarks for Tuesday session only.

- Eric C. Engstrom, Associate Director, Division of Monetary Affairs, Board
- Jon Faust, Senior Special Adviser to the Chair, Division of Board Members, Board
- Andrew Figura, Associate Director, Division of Research and Statistics, Board
- Glenn Follette, Associate Director, Division of Research and Statistics, Board
- Etienne Gagnon, Assistant Director, Division of Monetary Affairs, Board
- Joshua Gallin, Senior Special Adviser to the Chair, Division of Board Members, Board
- Michael S. Gibson, Director, Division of Supervision and Regulation, Board
- David Glancy, Principal Economist, Division of Monetary Affairs, Board
- Valerie S. Hinojosa, Section Chief, Division of Monetary Affairs, Board
- Matteo Iacoviello, Senior Associate Director, Division of International Finance, Board
- Jane E. Ihrig, Special Adviser to the Board, Division of Board Members, Board
- Michael T. Kiley, Deputy Director, Division of Financial Stability, Board
- Andreas Lehnert, Director, Division of Financial Stability, Board
- Kurt F. Lewis, Special Adviser to the Board, Division of Board Members, Board
- Laura Lipscomb, Special Adviser to the Board, Division of Board Members, Board
- Mark Meder, First Vice President, Federal Reserve Bank of Cleveland
- Ann E. Misback, Secretary, Office of the Secretary, Board
- Fernanda Nechio, Vice President, Federal Reserve Bank of San Francisco
- Edward Nelson, Senior Adviser, Division of Monetary Affairs, Board
- Michael G. Palumbo, Senior Associate Director, Division of Research and Statistics, Board
- Andrea Raffo, Senior Vice President, Federal Reserve Bank of Minneapolis

- Julie Ann Remache, Policy and Market Monitoring Head, Federal Reserve Bank of New York
- Linda Robertson, Assistant to the Board, Division of Board Members, Board
- Argia M. Sbordone, Research Department Head, Federal Reserve Bank of New York
- Samuel Schulhofer-Wohl, Senior Vice President, Federal Reserve Bank of Dallas
- Chiara Scotti, Special Adviser to the Board, Division of Board Members, Board
- Seth Searls,<sup>2</sup> Associate Director, Federal Reserve Bank of New York
- Nitish Ranjan Sinha, Special Adviser to the Board, Division of Board Members, Board
- Paul A. Smith, Deputy Associate Director, Division of Research and Statistics, Board
- Gustavo A. Suarez, Assistant Director, Division of Research and Statistics, Board
- Paula Tkac, Senior Vice President, Federal Reserve Bank of Atlanta
- Jeffrey D. Walker,<sup>2</sup> Associate Director, Division of Reserve Bank Operations and Payment Systems, Board
- Donielle A. Winford, Information Manager, Division of Monetary Affairs, Board
- Paul R. Wood, Special Adviser to the Board, Division of Board Members, Board
- Rebecca Zarutskie, Special Adviser to the Board, Division of Board Members, Board

#### **Committee Ethics Discussion**

The Chair began with a discussion of ethical standards and acknowledged the great privilege and heavy responsibility that come with being entrusted to make policy decisions. There was agreement that the Federal Reserve can be effective only when there is a foundation of public trust. Participants reaffirmed the importance of holding themselves and their staffs accountable for knowing and following the high ethical standards that are set in the Committee's policies, including those on financial transactions and disclosure and on external communications.

# Developments in Financial Markets and Open Market Operations

The manager pro tem turned first to a discussion of financial market developments in the United States. Over

the period, financial conditions had tightened amid elevated volatility across financial markets. The market-implied path of the policy rate rose, with the median federal funds rate values in the September Summary of Economic Projections and other Federal Reserve communications being viewed by market participants as indicating a commitment to sustaining a restrictive monetary policy stance. With data received over the period also indicating higher-than-expected core inflation, market participants placed high odds on a 75 basis point increase in the target range at the current meeting. Nonetheless, contacts were increasingly focused on the question of when the Committee might slow the pace of future increases in light of the substantial tightening of financial conditions that had occurred over the year. Most respondents to the Open Market Desk's surveys viewed a 50 basis point increase in the target range for the federal funds rate at the December meeting as the most likely outcome. On net, nominal Treasury yields ended the period higher, reflecting both an upward revision in the expected path of the policy rate and higher estimated term premiums. Investment-grade bond yields and mortgage interest rates moved up as well, to the highest levels in many years.

The manager pro tem turned next to a discussion of volatility in global financial markets. In September, an expansionary budget announced by the U.K. government resulted in an extraordinary rise in yields on gilts (long-dated U.K. government securities) and reduced gilt market liquidity. Reflecting its financial stability objective, the Bank of England initiated a temporary gilt purchase program designed to address disorderly market conditions. These purchases and a subsequent cancellation of some announced expansionary U.K. budgetary measures resulted in a retracement of much of the earlier increase in gilt yields.

Elevated volatility in international financial markets contributed to volatility in U.S. core fixed-income markets. In markets for U.S. Treasury securities, some measures of market-implied volatility approached pandemic-era levels. Spreads of yields on agency mortgage-backed securities (MBS) over yields on Treasury securities widened sharply, reflecting the sensitivity of these spreads to increased volatility. The increased volatility appeared to contribute to a decline in measures of market liquidity in core fixed-income markets, in particular around the period associated with U.K. volatility, but market functioning remained orderly.

The foreign exchange value of the dollar appreciated further over the period. Market participants perceived several Asian economies as engaging in foreign exchange market interventions in response to rapid depreciations of local currencies. In the case of advanced economies, whose monetary policy tightening was well under way, market participants focused on communications perceived as signaling a potentially slower pace of policy rate increases in the period ahead.

The manager pro tem turned next to developments in money markets and Federal Reserve operations. Usage of the overnight reverse repurchase agreement (ON RRP) facility remained fairly steady other than during the period surrounding quarter-end. In the period ahead, the relative pace of decline in ON RRP facility balances and reserve balances would depend importantly on shifts in money market conditions. Recent developments, including with regard to the relationship between ON RRP facility balances and money market rates, suggested that, over time, conditions could evolve in a manner that would lead to falling usage of the ON RRP facility. However, the manager pro tem noted that money market conditions could change somewhat more quickly in the lead-up to year-end because of normal factors, such as a Treasury tax payment date in December that could increase the Treasury General Account balance, and year-end position adjustments. This prospect could require money market participants to be more responsive to shifting liquidity conditions and to plan ahead for the coming period. Current market quotes suggested expectations of limited upward pressure on domestic money market rates around year-end. In offshore dollar funding markets, the premium associated with borrowing dollars was modestly higher than at similar points in previous years. Regarding Federal Reserve net income, 11 Reserve Banks reported deferred assets totaling \$6.3 billion in the latest H.4.1 statistical release, reflecting the negative net income stemming from rising interest expense. Many other central banks also faced negative net income.

By unanimous vote, the Committee ratified the Desk's domestic transactions over the intermeeting period. There were no intervention operations in foreign currencies for the System's account during the intermeeting period.

#### Staff Review of the Economic Situation

The information available at the time of the November 1–2 meeting suggested that U.S. real gross domestic product (GDP) had increased at a moderate pace in the third quarter after having declined over the first half of

the year. Labor market conditions remained quite tight, and consumer price inflation—as measured by the 12-month percentage change in the price index for personal consumption expenditures (PCE)—remained elevated.

In September, total nonfarm payroll employment posted a solid gain that was somewhat slower than the pace seen in recent months, and the unemployment rate declined 0.2 percentage point to 3.5 percent. The unemployment rate for African Americans declined in September but was more than 2 percentage points above the national average; the unemployment rate for Hispanics declined to a level that was 0.3 percentage point above the national measure. The labor force participation rate edged down in September, and the employment-to-population ratio was unchanged. The private-sector job openings rate, as measured by the Job Openings and Labor Turnover Survey, moved lower, on net, from July to September but remained high. Nominal wage growth continued to be rapid: Average hourly earnings rose 5.0 percent over the 12 months ending in September, while the employment cost index (ECI) of hourly compensation in the private sector, which also includes benefit costs, rose 5.2 percent over this period. However, the three-month change in the ECI in September was noticeably lower than the average pace seen over the first half of the year.

Consumer price inflation remained elevated. Total PCE price inflation was 6.2 percent over the 12 months ending in September, and core PCE inflation, which excludes changes in consumer energy prices and many consumer food prices, was 5.1 percent over the same period. The trimmed mean measure of 12-month PCE price inflation constructed by the Federal Reserve Bank of Dallas was 4.7 percent in September. The staff's common inflation expectations index, which combines information from many indicators of inflation expectations and inflation compensation, was little changed in the third quarter but remained above pre-pandemic levels.

Real PCE rose modestly in the third quarter. Residential investment dropped further, however, and business fixed investment growth was held back by a decline in nonresidential structures investment. Government purchases rose in the third quarter after having declined over the first half of the year.

The nominal U.S. international trade deficit narrowed in the third quarter. Net exports contributed positively to real GDP growth, as real exports stepped up while real imports declined.

Data pointed to weakening foreign economic activity in recent months, weighed down by the economic fallout of Russia's war against Ukraine, headwinds in China, and tighter financial conditions. In many advanced foreign economies, high inflation and disruptions to energy supply contributed to a decline in real disposable incomes and depressed consumer and business confidence. In response, fiscal authorities in Europe and Japan announced packages intended to ease the burden of high inflation on consumers and businesses. In China, data indicated weaker momentum in economic activity and a further deterioration in the property market. Weaker global demand has also resulted in a pronounced slowdown in manufacturing, which weighed on activity in export-oriented emerging market economies in Asia. Consumer price inflation rose further in October in many foreign economies, reflecting past increases in energy and food prices, but also a continued broadening of inflationary pressure within core prices. In response to high inflation, many central banks further tightened monetary policy, albeit at a slower pace in some cases.

#### Staff Review of the Financial Situation

Over the intermeeting period, U.S. Treasury yields and the market-implied federal funds rate path moved substantially higher. Broad domestic equity prices were little changed, on net, amid high market volatility, while corporate bond yields increased notably. The rise in borrowing costs appeared to have slowed the volume of financing in many credit markets. Credit quality remained sound overall, although there are some signs of deterioration for lower-rated borrowers.

The expected path of the federal funds rate implied by a straight read of financial market quotes rose notably over the intermeeting period, largely reflecting more-restrictive-than-expected monetary policy communications and data releases that pointed to inflation moving down more slowly than previously expected. On net, nominal Treasury yields increased across the maturity spectrum. The increases in nominal yields at medium-and longer-term horizons were primarily accounted for by higher real yields, though inflation compensation measures rose as well.

Broad equity price indexes fell significantly early in the intermeeting period, with inflation news and monetary policy expectations likely being the main drivers of stock price movements. However, equity prices later rebounded and ended the period essentially unchanged on net. One-month option-implied volatility on the S&P 500—the VIX—declined slightly, on net, but remained at the upper end of its range since mid-2020.

Conditions in short-term funding markets remained stable over the intermeeting period, with the September increase in the target range for the federal funds rate and the associated increases in the Federal Reserve's administered rates passing through quickly to overnight money market rates. In secured markets, money market rates remained soft relative to the ON RRP offering rate, attributed to subdued Treasury bill supply, elevated demand for Treasury collateral, and investor demand for very short-term assets amid uncertainty over the pace of policy rate increases. Daily take-up in the ON RRP facility remained elevated amid this softness in repurchase agreement rates. Money market fund net yields rose along with the rise in administered rates, while retail bank deposit rates increased modestly on balance.

Foreign asset prices were volatile over the intermeeting period as investors grappled with the combination of a deteriorating global growth outlook and synchronous policy tightening undertaken by major central banks in response to high inflation. Fiscal and political developments in the United Kingdom added to market volatility but left little net imprint. On balance, sovereign bond yields in most advanced foreign economies rose modestly and equity prices were mixed. The U.S. dollar appreciated against most major currencies, driven by widening yield differentials between the United States and the rest of the world and further deterioration of the foreign growth outlook. The Japanese yen weakened against the dollar, on net, even though Japanese authorities intervened to support the yen. The Chinese renminbi depreciated significantly against the dollar as continuation of the zero-COVID policy and increased investor concerns about longer-term growth prospects weighed on the currency. Investors continued to withdraw from dedicated emerging market economy and European funds amid further increases in U.S. Treasury yields and concerns over foreign economic growth.

In domestic credit markets, borrowing costs continued to rise over the intermeeting period. Yields for corporate bonds and institutional leveraged loans increased. Bank interest rates for commercial and industrial (C&I) loans continued the upward trend observed since the first quarter of 2022, while a rising proportion of small businesses reported facing increased borrowing costs in September. Municipal bond yields increased across ratings categories. Residential mortgage rates rose further in the period following the September FOMC meeting, nearly reaching their highest levels since 2002. Interest rates on existing credit card accounts continued to trend upward, reflecting increases in the federal funds rate that were quickly passed through to prime rates.

Credit continued to be generally available to businesses and households despite some signs of tightening lending standards in certain segments, but high borrowing costs reduced the demand for credit in many markets. Issuance of corporate bonds, although quite strong in early September, slowed significantly in late September and October. Gross institutional leveraged loan issuance declined in September. Equity issuance and gross issuance of municipal bonds remained weak in September and October.

Business loans at banks continued to expand in September but at a slower pace than observed in past months. In the October Senior Loan Officer Opinion Survey on Bank Lending Practices (SLOOS), banks reported having tightened C&I and commercial real estate (CRE) lending standards over the previous three months. Meanwhile, issuance of commercial mortgage-backed securities (CMBS) also slowed amid higher spreads. Credit appeared to remain generally available to most small businesses, though the share of small firms reporting that it was more difficult to obtain loans than three months ago continued its upward trend in September.

Credit remained available in the residential mortgage market for borrowers who are able to pay high interest rates. The number of home-purchase and refinance mortgage originations were about flat in August and September but down significantly from late last year. Consumer credit remained available for most borrowers in July and August, with auto credit and credit card credit growing at a robust pace. However, banks in the October SLOOS reported being less likely to approve auto and credit card loans to subprime and near-prime borrowers compared with earlier this year.

The credit quality of nonfinancial corporations showed signs of deterioration in some sectors but remained generally solid overall. The volume of corporate bond rating upgrades was roughly on par with that of downgrades in September. However, upgrades were concentrated in the investment-grade segment; in the speculative-grade segment, downgrades outpaced upgrades, and market-implied expectations of defaults over the next year increased markedly. Default rates on corporate bonds and leveraged loans rose slightly from low levels. The credit quality of C&I and CRE loans on banks' balance sheets also remained sound. Delinquency rates for CRE loans in non-agency CMBS pools ticked up in September, as did indicators of future payment stress. Delinquency rates on small business loans remained quite low, and the credit quality of municipal securities remained strong.

The credit quality of most households also appeared to remain solid. Delinquencies on residential mortgage loans continued to trend down, and the share of mortgages in foreclosure in August remained close to prepandemic levels. Available data through the second quarter indicated that credit card and auto credit delinquency rates continued to rise; however, delinquencies for auto loans were near their pre-pandemic levels, and those for credit cards remained well below pre-pandemic levels.

The staff provided an update on its assessment of the stability of the financial system. The staff noted that respondents to the Federal Reserve Bank of New York's survey of near-term risks judged that economic, financial, and geopolitical risks had risen across the globe. Amid this weaker outlook and higher interest rates, prices of risky assets generally fell, though real estate valuations remained elevated. Household borrowing was moderate, and mortgage performance remained strong. Nonfinancial businesses' leverage continued to decline, and interest coverage ratios continued to increase; however, further increases in borrowing costs could pose risks to some borrowers' ability to service their debts. In the financial sector, the results of this year's stress test demonstrated that large banks remain resilient to a substantial economic downturn, but there were indicators of elevated leverage at hedge funds and other nonbank financial institutions. Short-term funding markets continued to have structural vulnerabilities. Funding risks at domestic banks remained low, but prime money market funds, other cash-investment vehicles, open-end mutual funds, and stablecoins all continued to be susceptible to disruptive redemptions.

#### **Staff Economic Outlook**

The projection for U.S. economic activity prepared by the staff for the November FOMC meeting was weaker than the September forecast. Broad financial conditions were expected to be considerably more restrictive over the projection period than in September, reflecting both recent market moves and upward revisions to the staff's assumptions regarding the future course of monetary policy based on recent Federal Reserve communications. As a result, output was expected to move below the staff's estimate of potential early in 2024 and to remain below potential in 2025. Likewise, the unemployment rate was expected to be above the staff's estimate of its natural rate in 2024 and 2025.

On a 12-month change basis, total PCE price inflation was expected to be 5.3 percent in 2022 and core inflation was expected to be 4.6 percent. The staff raised their

projection for core PCE price inflation in coming quarters, reflecting their assessment that the factors that had boosted inflation since the middle of last year—most notably, strong wage growth and the effect of supply constraints on prices—would persist for longer than previously thought. With the effects of supply—demand imbalances in goods markets expected to unwind and labor and product markets expected to become less tight, the staff continued to project that inflation would decline markedly over the next two years; in 2025, both total and core PCE price inflation were expected to be 2 percent.

With inflation remaining stubbornly high, the staff continued to view the risks to the inflation projection as skewed to the upside. For real activity, sluggish growth in real private domestic spending, a deteriorating global outlook, and tightening financial conditions were all seen as salient downside risks to the projection for real activity; in addition, the possibility that a persistent reduction in inflation could require a greater-than-assumed amount of tightening in financial conditions was seen as another downside risk. The staff, therefore, continued to judge that the risks to the baseline projection for real activity were skewed to the downside and viewed the possibility that the economy would enter a recession sometime over the next year as almost as likely as the baseline.

## Participants' Views on Current Conditions and the Economic Outlook

In their discussion of current economic conditions, participants noted that recent indicators pointed to modest growth of spending and production. Nonetheless, job gains had been robust in recent months, and the unemployment rate had remained low. Inflation remained elevated, reflecting supply and demand imbalances related to the pandemic, higher food and energy prices, and broader price pressures. Participants recognized that Russia's war against Ukraine was causing tremendous human and economic hardship. The war and related events were creating additional upward pressure on inflation and were weighing on global economic activity. Against this background, participants continued to be highly attentive to inflation risks.

With regard to current economic activity and the nearterm outlook, participants observed that although real GDP rebounded in the third quarter, recent data suggested that economic activity in the near term appeared likely to expand at a pace below its trend growth rate. Participants noted a softening in consumer and business spending growth, and some participants remarked that there had been a notable slowing in interest rate-sensitive sectors, particularly housing, in response to the tightening of financial conditions associated with the Committee's policy actions. With inflation remaining far too high and showing few signs of moderating, participants observed that a period of below-trend real GDP growth would be helpful in bringing aggregate supply and aggregate demand into better balance, reducing inflationary pressures, and setting the stage for the sustained achievement of the Committee's objectives of maximum employment and price stability.

In their discussion of the household sector, participants noted that growth in consumer spending had softened recently. Several participants remarked that there had been a reduction in discretionary expenditures, especially among lower- and middle-income households, whose purchases were shifting toward lower-cost options. Participants observed that, in aggregate, household-sector balance sheets were still strong and that this factor would continue to support consumer spending. A few participants noted that some households had been running down the additional savings they had accumulated during the pandemic and that there were reports of a rise in the number of households experiencing financial strains. Participants commented that higher mortgage interest rates had notably restrained housing activity.

With regard to the business sector, participants noted that growth in investment spending was modest. Several participants observed that business investment was being weighed down by tighter financial conditions, although a few participants reported that some business contacts indicated that their investment spending had been resilient. Some participants mentioned reports received from business contacts of easing supply bottlenecks, reflected in declines in shipping costs and delivery times, although the reported extent of these improvements varied across contacts. A few participants remarked that, in instances in which supply constraints had eased, their business contacts found it easier to plan production or had diminished needs to maintain precautionary inventories. A couple of participants noted that drought conditions in the Midwest were making some waterways, notably the Mississippi River System, less navigable. These conditions were creating new supply constraints and putting upward pressures on transportation costs and prices for farm products.

Participants observed that, with inflation elevated globally, many central banks were tightening monetary policy simultaneously, contributing to an overall tightening of global financial conditions. Participants further noted

that the overall tightening of global financial conditions, along with energy prices and other headwinds, was contributing to a slowdown in the growth rate of global real GDP. Participants remarked that the foreign economic slowdown, in combination with a strong U.S. dollar, was likely to weigh on the U.S. export sector, and several participants commented that there could be wider spillovers to the U.S. economy.

Participants observed that the labor market had remained very tight, with the unemployment rate near a historically low level, the number of job vacancies very high, a low pace of layoffs, robust employment gains, and elevated nominal wage growth. Some participants remarked that employers in certain sectors, such as health care, leisure and hospitality, or construction, faced particularly acute labor shortages and that these shortages were contributing to especially strong wage pressures in those sectors. Participants commented on the labor market having remained strong to date, even alongside the slowing in economic activity. A number of participants remarked that some businesses were keen to retain workers after their recent experiences of labor shortages and hiring challenges. These participants noted that this consideration had limited layoffs even as the broader economy had softened or that this behavior could limit layoffs if aggregate economic activity were to soften further. Nevertheless, many participants noted tentative signs that the labor market might be moving slowly toward a better balance of supply and demand; these signs included a lower rate of job turnover and a moderation in nominal wage growth. Participants anticipated that imbalances in the labor market would gradually diminish and that the unemployment rate would likely rise somewhat from its current very low level, while vacancies would likely fall.

Participants agreed that inflation was unacceptably high and was well above the Committee's longer-run goal of 2 percent. Some participants noted that the burden of high inflation was falling disproportionally on low-income households, for whom necessities like food, energy, and shelter make up a larger share of expenditures. Many participants observed that price pressures had increased in the services sector and that, historically, price pressures in this sector had been more persistent than those in the goods sector. Some participants noted that the recent high pace of nominal wage growth, taken together with the recent low pace of productivity growth, would, if sustained, be inconsistent with achievement of the 2 percent inflation objective. Several participants, however, commented on signs of a moderation in nom-

inal wage growth. Participants agreed that near-term inflation pressures were high, but some noted that lower commodity prices or the expected reduced pressure on goods prices due to an easing of supply constraints should contribute to lower inflation in the medium term. Several participants remarked that rent increases on new leases had been slowing in recent months, but participants also noted that it would take some time for this development to show up in PCE inflation. Several participants summarized reports provided by business contacts about their firms' ability to pass on higher input costs to their customers. These reports suggested that some firms continued to have solid pricing power, while in other cases cost pass-through had become more difficult.

Participants remarked that, overall, measures of medium- and longer-term inflation expectations obtained from surveys of households and businesses as well as from financial markets quotes appeared to have remained well anchored. A couple of participants observed that longer-term inflation expectations were stable even as measures of near-term inflation expectations responded to realized inflation in line with historical patterns. Participants noted that longer-term inflation expectations were an important influence on inflation's behavior and stressed that the Committee's ongoing monetary policy tightening would be essential for ensuring that these expectations remained well anchored. Several participants expressed the concern that the longer inflation remained well above the 2 percent goal, the greater the risk that longer-term inflation expectations could become unanchored. Such a development, if it materialized, would make it much more costly to bring inflation down and to achieve the Committee's statutory objectives of maximum employment and price stability. A couple of participants discussed the high dispersion of longer-term inflation expectations across respondents in various surveys: These participants noted that the higher dispersion may signal increased uncertainty about the inflation outlook and was a reason not to be complacent about longer-term inflation expectations remaining well anchored.

Participants discussed the length of the lags in the response of the economy to monetary policy actions, taking into account historical experience and the various estimates of timing relationships provided in economic research, as well as the high degree of uncertainty involved in applying the evidence on lags to the current situation. They noted that monetary policy tightening typically produced rapid effects on financial conditions but that

the full effects of changes in financial conditions on aggregate spending and the labor market, and then on inflation, likely took longer to materialize. With regard to current circumstances, many participants remarked that, even though the tightening of monetary policy had clearly influenced financial conditions and had had notable effects in some interest rate-sensitive sectors, the timing of the effects on overall economic activity, the labor market, and inflation was still quite uncertain, with the full extent of the effects yet to be realized. Several participants observed that, because of the difficulties in isolating the effects of monetary policy, changes in economic structure, or increasing transparency over time regarding monetary policy decisions, the historical record did not provide definitive evidence on the length of these lags. In addition, some participants noted that the post-pandemic dynamics of the economy may differ from those prevailing prior to the pandemic.

Participants generally noted that the uncertainty associated with their economic outlooks was high and that the risks to the inflation outlook remained tilted to the upside. Participants observed that recent inflation had been higher and more persistent than anticipated. Some participants noted the risk that energy prices could rise sharply again amid geopolitical tensions. A few participants commented that the ongoing tightness in the labor market could lead to an emergence of a wage–price spiral, even though one had not yet developed.

A number of participants judged that the risks regarding the outlook for economic activity were weighted to the downside, with various global headwinds being prominently cited. These global headwinds included a slow-down in economic activity occurring in China and the ongoing international economic implications of Russia's war against Ukraine. Participants observed that, because of high inflation pressures prevailing globally, monetary policy tightening was under way in many other economies—a development likely to affect foreign economic activity and carrying the potential for spillovers to the U.S. economy.

In their discussion of issues related to financial stability, participants noted the importance of orderly functioning of the market for U.S. Treasury securities for the transmission of monetary policy, for meeting the financing needs of the federal government, and for the operation of the global financial system. Participants observed that, despite elevated interest rate volatility and indications of strained liquidity conditions, the functioning of the Treasury securities market had been orderly. Noting that the value of resilience of the market for Treasury

securities was underlined by recent gilt market disruptions in the United Kingdom, a number of participants discussed a range of issues that could be considered by the appropriate authorities regarding market resilience, including potential interactions of capital and liquidity regulations with market activity, oversight of key market participants, clearing and settlement practices, and the role and structure of the Federal Reserve's standing facilities. A few participants noted the importance of being prepared to address disruptions in U.S. core market functioning in ways that would not affect the stance of monetary policy, especially during episodes of monetary policy tightening. Several participants noted the risks posed by nonbank financial institutions amid the rapid global tightening of monetary policy and the potential for hidden leverage in these institutions to amplify shocks.

In their consideration of appropriate monetary policy actions at this meeting, participants concurred that inflation remained well above the Committee's longer-run goal of 2 percent and the recent data on inflation provided very few signs that inflation pressures were abating. The economic expansion had slowed significantly from last year's rapid pace, and recent indicators pointed to modest growth in spending and production in the current quarter. Despite the slowdown in growth, the labor market remained extremely tight, and nominal wage growth remained elevated. Against this backdrop, all participants agreed that it was appropriate to raise the target range for the federal funds rate 75 basis points at this meeting and to continue the process of reducing the Federal Reserve's securities holdings, as described in the Plans for Reducing the Size of the Federal Reserve's Balance Sheet that the Committee issued in May. Participants observed that the policy rate hike at this meeting was another step toward making the Committee's monetary policy stance sufficiently restrictive to help ease supply and demand imbalances and to return inflation to 2 percent over time.

In their discussion of the effects of monetary policy actions and communications to date, participants concurred that the Committee had taken forceful steps to moderate aggregate demand in order to bring it into better alignment with aggregate supply. Financial conditions had tightened significantly in response to the Committee's policy actions, and their effects were clearly evident in the most interest rate-sensitive sectors of the economy, including residential investment and some components of business investment. Several participants commented that monetary policy actions and communications had helped keep longer-term inflation

expectations well anchored—a situation that would help facilitate the return of inflation to the Committee's longer-run goal of 2 percent. Nevertheless, with realized inflation well above that goal and the labor market still very tight, participants agreed that ongoing increases in the target range for the federal funds rate would be appropriate and would help keep longer-term inflation expectations well anchored. Participants noted that, with regard to both real economic activity and inflation, it would take time for the full effects of monetary restraint to be realized and that these lags complicated an assessment of the effects of monetary policy.

In discussing potential policy actions at upcoming meetings, participants reaffirmed their strong commitment to returning inflation to the Committee's 2 percent objective, and they continued to anticipate that ongoing increases in the target range for the federal funds rate would be appropriate in order to attain a sufficiently restrictive stance of policy to bring inflation down over time. Many participants commented that there was significant uncertainty about the ultimate level of the federal funds rate needed to achieve the Committee's goals and that their assessment of that level would depend, in part, on incoming data. Even so, various participants noted that, with inflation showing little sign thus far of abating, and with supply and demand imbalances in the economy persisting, their assessment of the ultimate level of the federal funds rate that would be necessary to achieve the Committee's goals was somewhat higher than they had previously expected.

Participants mentioned a number of considerations that would likely influence the pace of future increases in the target range for the federal funds rate. These considerations included the cumulative tightening of monetary policy to date, the lags between monetary policy actions and the behavior of economic activity and inflation, and economic and financial developments. A number of participants observed that, as monetary policy approached a stance that was sufficiently restrictive to achieve the Committee's goals, it would become appropriate to slow the pace of increase in the target range for the federal funds rate. In addition, a substantial majority of participants judged that a slowing in the pace of increase would likely soon be appropriate. A slower pace in these circumstances would better allow the Committee to assess progress toward its goals of maximum employment and price stability. The uncertain lags and magnitudes associated with the effects of monetary policy actions on economic activity and inflation were among the reasons cited regarding why such an assessment was important. A few participants commented

that slowing the pace of increase could reduce the risk of instability in the financial system. A few other participants noted that, before slowing the pace of policy rate increases, it could be advantageous to wait until the stance of policy was more clearly in restrictive territory and there were more concrete signs that inflation pressures were receding significantly.

With monetary policy approaching a sufficiently restrictive stance, participants emphasized that the level to which the Committee ultimately raised the target range for the federal funds rate, and the evolution of the policy stance thereafter, had become more important considerations for achieving the Committee's goals than the pace of further increases in the target range. Participants agreed that communicating this distinction to the public was important in order to reinforce the Committee's strong commitment to returning inflation to the 2 percent objective.

Participants discussed a number of risk-management considerations related to the conduct of monetary policy. In light of the continuing broad-based and unacceptably high level of inflation and upside risks to the inflation outlook, participants remarked that purposefully moving to a more restrictive policy stance was consistent with risk-management considerations. Some participants observed that there had been an increase in the risk that the cumulative policy restraint would exceed what was required to bring inflation back to 2 percent. Several participants commented that continued rapid policy tightening increased the risk of instability or dislocations in the financial system. There was wide agreement that heightened uncertainty regarding the outlooks for both inflation and real activity underscored the importance of taking into account the cumulative tightening of monetary policy, the lags with which monetary policy affected economic activity and inflation, and economic and financial developments.

#### **Committee Policy Action**

In their discussion of monetary policy for this meeting, members agreed that recent indicators had pointed to modest growth in spending and production. Members also concurred that job gains had been robust in recent months, and the unemployment rate had remained low. Members agreed that inflation had remained elevated, reflecting supply and demand imbalances related to the pandemic, higher food and energy prices, and broader price pressures.

Members observed that Russia's war against Ukraine was causing tremendous human and economic hardship. They also agreed that the war and related events were

creating additional upward pressure on inflation and were weighing on global economic activity. Members concurred that they remained highly attentive to inflation risks.

Members agreed that the Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, members agreed to raise the target range for the federal funds rate to 3<sup>3</sup>/<sub>4</sub> to 4 percent. Members anticipated that ongoing increases in the target range would be appropriate in order to attain a stance of monetary policy sufficiently restrictive to return inflation to 2 percent over time. Members agreed to add language to this effect in the postmeeting statement, on the grounds that this would underscore the Committee's view that a sufficiently restrictive stance of monetary policy was needed for achieving its dual-mandate goals. Members agreed that, in determining the pace of future increases in the target range, they would take into account the cumulative tightening of monetary policy, the lags with which monetary policy affected economic activity and inflation, and economic and financial developments. Members agreed to add language to this effect in the postmeeting statement in order to convey explicitly the range of factors that they would consider in determining future monetary policy actions. In addition, members agreed that they would continue reducing the Federal Reserve's holdings of Treasury securities, agency debt, and agency MBS, as described in the Plans for Reducing the Size of the Federal Reserve's Balance Sheet that were issued in May. All members affirmed that they were strongly committed to returning inflation to its 2 percent objec-

Members agreed that, in assessing the appropriate stance of monetary policy, they would continue to monitor the implications of incoming information for the economic outlook. They would be prepared to adjust the stance of monetary policy as appropriate if risks emerged that could impede the attainment of the Committee's goals. Members agreed that their assessments will take into account a wide range of information, including readings on public health, labor market conditions, inflation pressures and inflation expectations, and financial and international developments.

At the conclusion of the discussion, the Committee voted to authorize and direct the Federal Reserve Bank of New York, until instructed otherwise, to execute transactions in the SOMA in accordance with the following domestic policy directive, for release at 2:00 p.m.:

"Effective November 3, 2022, the Federal Open Market Committee directs the Desk to:

- Undertake open market operations as necessary to maintain the federal funds rate in a target range of 3<sup>3</sup>/<sub>4</sub> to 4 percent.
- Conduct overnight repurchase agreement operations with a minimum bid rate of 4 percent and with an aggregate operation limit of \$500 billion; the aggregate operation limit can be temporarily increased at the discretion of the Chair.
- Conduct overnight reverse repurchase agreement operations at an offering rate of 3.8 percent and with a per-counterparty limit of \$160 billion per day; the per-counterparty limit can be temporarily increased at the discretion of the Chair.
- Roll over at auction the amount of principal payments from the Federal Reserve's holdings of Treasury securities maturing in each calendar month that exceeds a cap of \$60 billion per month. Redeem Treasury coupon securities up to this monthly cap and Treasury bills to the extent that coupon principal payments are less than the monthly cap.
- Reinvest into agency mortgage-backed securities (MBS) the amount of principal payments from the Federal Reserve's holdings of agency debt and agency MBS received in each calendar month that exceeds a cap of \$35 billion per month.
- Allow modest deviations from stated amounts for reinvestments, if needed for operational reasons.
- Engage in dollar roll and coupon swap transactions as necessary to facilitate settlement of the Federal Reserve's agency MBS transactions."

The vote also encompassed approval of the statement below for release at 2:00 p.m.:

"Recent indicators point to modest growth in spending and production. Job gains have been robust in recent months, and the unemployment rate has remained low. Inflation remains elevated, reflecting supply and demand imbalances related to the pandemic, higher food and energy prices, and broader price pressures.

Russia's war against Ukraine is causing tremendous human and economic hardship. The war and related events are creating additional upward pressure on inflation and are weighing on global economic activity. The Committee is highly attentive to inflation risks.

The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to raise the target range for the federal funds rate to 3<sup>3</sup>/<sub>4</sub> to 4 percent. The Committee anticipates that ongoing increases in the target range will be appropriate in order to attain a stance of monetary policy that is sufficiently restrictive to return inflation to 2 percent over time. In determining the pace of future increases in the target range, the Committee will take into account the cumulative tightening of monetary policy, the lags with which monetary policy affects economic activity and inflation, and economic and financial developments. In addition, the Committee will continue reducing its holdings of Treasury securities and agency debt and agency mortgagebacked securities, as described in the Plans for Reducing the Size of the Federal Reserve's Balance Sheet that were issued in May. The Committee is strongly committed to returning inflation to its 2 percent objective.

In assessing the appropriate stance of monetary policy, the Committee will continue to monitor the implications of incoming information for the economic outlook. The Committee would be prepared to adjust the stance of monetary policy as appropriate if risks emerge that could impede the attainment of the Committee's goals. The Committee's assessments will take into account a wide range of information, including readings on public health, labor market conditions, inflation pressures and inflation expectations, and financial and international developments."

Voting for this action: Jerome H. Powell, John C. Williams, Michael S. Barr, Michelle W. Bowman, Lael Brainard, James Bullard, Susan M. Collins, Lisa D. Cook, Esther L. George, Philip N. Jefferson, Loretta J. Mester, and Christopher J. Waller.

#### Voting against this action: None.

To support the Committee's decision to raise the target range for the federal funds rate, the Board of Governors of the Federal Reserve System voted unanimously to raise the interest rate paid on reserve balances to 3.9 percent, effective November 3, 2022. The Board of Governors of the Federal Reserve System voted unanimously to approve a <sup>3</sup>/<sub>4</sub> percentage point increase in the primary credit rate to 4 percent, effective November 3, 2022.<sup>4</sup>

It was agreed that the next meeting of the Committee would be held on Tuesday-Wednesday, December 13-

14, 2022. The meeting adjourned at 10:30 a.m. on November 2, 2022.

#### **Notation Vote**

By notation vote completed on October 11, 2022, the Committee unanimously approved the minutes of the Committee meeting held on September 20–21, 2022.

James A. Clouse Secretary

November 3, 2022, or the date such Reserve Banks inform the Secretary of the Board of such a request. (Secretary's note: Subsequently, the Federal Reserve Banks of New York, Philadelphia, and Kansas City were informed of the Board's approval of their establishment of a primary credit rate of 4 percent, effective November 3, 2022.)

<sup>&</sup>lt;sup>4</sup> In taking this action, the Board approved requests to establish that rate submitted by the Boards of Directors of the Federal Reserve Banks of Boston, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Dallas, and San Francisco. This vote also encompassed approval by the Board of Governors of the establishment of a 4 percent primary credit rate by the remaining Federal Reserve Banks, effective on the later of