For release on delivery
10:45 a.m. EST (8:45 a.m. MST)
November 28, 2023

Reflections on the Economy and Monetary Policy

Remarks by

Michelle W. Bowman

Member

Board of Governors of the Federal Reserve System

at the

Utah Bankers Association and Salt Lake City Chamber
Banker and Business Leader Breakfast

Salt Lake City, Utah

November 28, 2023

It is a pleasure to join you this morning in Salt Lake City for the Utah Banker and Business Leader Breakfast.[1] I find great value in engaging with and learning from the experiences and perspectives of those who are directly engaged in the economy—businesses and consumers, and those who support economic activity by providing access to financial services through the broader financial system. These experiences help provide context for the economic and financial data that we rely upon for our economic analyses. I look forward to learning about how your businesses—and the clients and communities you serve—are navigating the current economic and financial conditions.

Since joining the Board of Governors of the Federal Reserve System five years ago this week, the U.S. economy has experienced a number of unique economic challenges. In my remarks today, I will include some of my observations on a number of economic developments that our economy has experienced during that time. I will also consider the monetary policy actions taken by the Federal Open Market Committee (FOMC) in response to these developments and conclude by highlighting several uncertainties surrounding the economic outlook and how they affect my views about appropriate monetary policy going forward. Prominent among these uncertainties are whether supply-side improvements will continue to reduce inflationary pressures; the extent to which the demand for goods, services, and labor will come into better balance with supply given the current setting of monetary policy; and the level at which the federal funds rate will be consistent with the FOMC's inflation and maximum-employment goals in the longer run.

[1] The views expressed here are my own and not necessarily those of my colleagues on the Federal Open Market Committee or the Board of Governors.

The Post–Financial Crisis Economy and Monetary Policy

Five years ago, monetary policymakers faced a much different set of challenges than those we face today. At that time, one of the primary concerns of the FOMC was that inflation had consistently been running slightly below the Committee's 2 percent inflation target, despite years of accommodative monetary policy following the 2007–08 financial crisis and subsequent recession. More broadly, many central banks around the world were grappling with the prospect of structurally lower interest rates due to a variety of factors including demographic changes and higher savings rates, lower potential output and productivity growth, and greater investor demand for safe assets like Treasury securities.

One central topic of discussion during FOMC meetings in 2018 and 2019, my first year as a Governor and permanent voting member of the FOMC, was how monetary policy strategies and tools could best achieve the Committee's dual mandate of price stability and maximum employment in a world of structurally low interest rates and disinflationary forces that kept inflation persistently under the Committee's 2 percent target. Relatedly, there was an ongoing concern that the federal funds rate, the FOMC's key policy rate, was too close to the "zero lower bound," which would limit the Committee's ability to respond effectively to an adverse shock by lowering interest rates. So much so that even during the economic expansion there was concern that the Fed would likely be severely limited in its ability to stimulate the economy.

In 2018, the FOMC was nearing the end of a gradual monetary policy tightening cycle that had begun in late 2015. At the time the FOMC had been slowly tightening monetary policy, it had the benefit of a strong labor market, a steadily expanding

economy, and inflation near 2 percent. The U.S. was also experiencing one of the longest economic expansions in its history, with consistent labor market gains for all segments of the workforce. During my first FOMC meeting in December 2018, the FOMC completed this hiking cycle by raising the target range for the federal funds rate by 25 basis points to 2¼ to 2½ percent. The FOMC maintained this range until the second half of 2019, when the Committee reduced the federal funds rate by a total of 75 basis points in response to moderating economic growth and inflation and global economic uncertainties related to expectations of lower U.S. growth.[2] Although the underlying issues were quite different, there were similarities to the issues we face today. At that time, the Federal Reserve was also in the process of normalizing the size of its balance sheet, which stood at just under $4 trillion in December 2018.[3]

Then, in March 2020, the COVID-19 pandemic created an unprecedented shock to the global economy and financial system. This shock—combined with the policy responses of governments and central banks around the world—disrupted many of the economic dynamics that had influenced the economy over the past several decades. These impacts will affect how we think about monetary policy going forward, but let's put the event and response into better context.

---

[2] See, for example, the discussion of risks and uncertainties at the July 2019 FOMC meeting, the first meeting at which the target range for the federal funds rate was lowered. The minutes of the July 30–31, 2019, Federal Open Market Committee meeting are available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[3] Securities runoff had begun in October 2017 when the Fed's securities holdings stood at nearly $4.25 trillion. In October 2019, in response to a brief period of stress in short-term funding markets, the FOMC began to expand the size of the Fed's securities holdings from a level of just over $3.5 trillion to attain a level of ample reserves to the banking system in line with growth in the economy and banking sector. See the October 2019 Federal Open Market Committee Statement, which is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

The Pandemic Policy Response and Economic Recovery

Widespread economic lockdowns and social isolation, combined with other pandemic effects, caused the swiftest and deepest contraction in employment and economic activity since the Great Depression. Many critical parts of the U.S. financial system experienced significant disruption or completely ceased to function. The Federal Reserve responded forcefully to mitigate the financial market turmoil and the economic effects of the rapid shutdown of the U.S. economy. As a part of its response, the FOMC quickly lowered the target range for the federal funds rate back to 0 to ¼ percent and began purchasing large amounts of Treasury and agency mortgage-backed securities. These purchases were initially designed to support the smooth functioning of security markets to support the flow of credit to businesses and households and, later, to provide additional monetary policy accommodation to support economic activity and labor markets.[4]

Central banks in other countries and jurisdictions also implemented accommodative monetary policy to support their economies during the early phases of the pandemic. In addition, fiscal authorities around the world implemented programs to support labor markets and enable household and business spending. In the U.S., these programs and policies included the Paycheck Protection Program and other CARES Act programs designed to support businesses, households, and state and local governments. These policies, combined with extremely accommodative monetary policies, bolstered

---

[4] The Federal Reserve implemented 13 emergency lending and liquidity facilities under its emergency lending authorities and undertook supervisory and regulatory actions to support the flow of credit to households, businesses, and local governments. See "Funding, Credit, Liquidity, and Loan Facilities" and "Supervisory and Regulatory Actions in Response to COVID-19" on the Board's website at https://www.federalreserve.gov/funding-credit-liquidity-and-loan-facilities.htm and https://www.federalreserve.gov/supervisory-regulatory-action-response-covid-19.htm, respectively.

private-sector and local government balance sheets. They also resulted in what has come to be referred to as "excess savings"—money that consumers would have spent otherwise but couldn't, given a number of physical- and supply-related constraints.

The innovative approaches adopted by many American businesses—including shifting to online sales and complying with social-distancing requirements to meet government operating requirements—the excess savings, and the newly introduced medical treatments supported a sharp economic rebound in 2021, with more than 5 percent real gross domestic product (GDP) growth in the first two quarters. Strong demand, early retirements, generous fiscal support, very low legal immigration, and a mismatch between available jobs and workers all contributed to a very tight labor market. The unusually rapid rebound in economic activity, the pandemic-driven shift in consumer spending toward goods, reduced manufacturing capacity in some sectors, and supply-chain vulnerabilities led to crippling supply-chain bottlenecks in a number of areas. Eventually, given these supply–demand imbalances amid accommodative fiscal and monetary policies, inflation moved up to very high levels.

By the second half of 2021, inflationary pressures intensified and became more broad based. Labor markets were extremely tight, though data available at the time did not reflect the true extent of this tightness. Of the many difficult issues the Committee faced at the time, one of the most important was whether the inflationary pressures would be persistent or resolve as supply-side pressures eventually eased.

The June 2021 Summary of Economic Projections (SEP) showed the median FOMC participant expected annual personal consumption expenditures (PCE) inflation to

be 3.4 percent at the end of 2021 and to settle at 2.1 percent by the end of 2022.[5] Private-sector forecasters expected slightly lower inflation of 2.9 percent at year-end 2021 and projected it to be 2.3 percent by the end of 2022.[6] With the benefit of hindsight, we know now that most forecasters, ourselves included, vastly misjudged the persistence of inflation at that time, with PCE inflation of 5.9 percent for both 2021 and 2022. This underscores the challenge we faced in discerning which factors were driving inflation and how long those forces would persist.

High Inflation and the Response of Monetary Policy

In the second half of 2021, it became clear that the FOMC's monetary policy stance was too accommodative in the presence of growing inflationary pressures and that the Committee needed to move toward a tighter policy stance.[7] It seems likely to me that the experience of the years leading up to the pandemic, when inflation was persistently low, made it hard for forecasters to foresee how quickly that could change. Of course, the inflation and labor data did not accurately reflect the economic conditions prevailing at the time and were subsequently substantially revised. Together, these factors likely also led to a delay in the removal of monetary policy accommodation in 2021.[8] The

---

[5] See the Summary of Economic Projections released following the June 2021 meeting of the Federal Open Market Committee, which is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[6] Private-sector forecasts reflect the consensus estimate in the Blue Chip survey of business forecasters in June 2021.

[7] The median FOMC participant revised up 12-month PCE inflation to 4.2 percent and 2.2 percent for the years 2021 and 2022, respectively, in the September 2021 SEP.

[8] For example, both August and September 2021 employment reports suggested job growth at much lower levels than consensus forecasts and were subsequently sizably increased. Similarly, based on current data, PCE inflation for 2021:Q3 to 2022:Q2 are also revised higher. See the real-time data for macroeconomists on the Federal Reserve Bank of Philadelphia's website at https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/pcon.

monetary policy experience during the pandemic highlights how structural changes in the economy can be difficult to identify in real time.

By November 2021, the target range for the federal funds rate was still at 0 to ¼ percent. And we continued to purchase assets at the same pace as earlier in the year, although at our November 2021 meeting we announced that we would begin to slow the pace of purchases later that month and in December.[9] At the December 2021 meeting, we doubled the pace of tapering, which accelerated the end of purchases to the following March.

The FOMC finally raised the target range for the federal funds rate by 25 basis points and ended the purchase of Treasury and agency mortgage-backed securities at the March 2022 meeting. And in May, the FOMC announced its plan to reduce the size of the Federal Reserve's securities holdings—which then stood at around $8.5 trillion—starting in June and at a pace much faster than in the previous episode of balance sheet reduction.[10] The FOMC also continued to increase the target range for the federal funds rate over the course of 2022 at a pace much faster than in previous tightening cycles, as it became clear that inflation was higher and more persistent than many forecasters had expected. Twelve-month total PCE inflation peaked at 6.6 percent just before the June 2022 meeting, reflecting both high core inflation and higher energy and food prices, which were influenced by geopolitical conflicts.

To date, the FOMC has increased the target range for the federal funds rate to 5¼ to 5½ percent and has been reducing the size of the Federal Reserve's securities

---

[9] See the November 2021 Federal Open Market Committee Statement, which is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

[10] See the May 2023 Federal Open Market Committee Statement, which is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

holdings, which now stand at just above $7 trillion. We have also seen significant progress on bringing inflation down, so far without impairing the strength of the labor market and economic activity.

Looking Ahead

At our most recent meeting, the FOMC voted to maintain the target range for the federal funds rate at the current level and continue to run off the Fed's securities holdings.[11] Inflation readings have come in lower, with some of the improvement related to a continued easing of supply-side pressures. But the level of inflation remains high, with the most recent readings of 12-month total and core PCE inflation at 3.4 percent and 3.7 percent, respectively. And recent progress has been uneven. The economy has remained strong as the FOMC has raised the federal funds rate, and recent data indicate that economic activity accelerated in the third quarter, with real GDP growing at a 4.9 percent annual rate. The most recent employment report showed a continuation of healthy job gains. Labor force participation has improved over the past year, with a somewhat slower, but still strong, pace of job gains, a sign that labor market supply and demand may be coming into better balance.

At our last meeting, I supported the FOMC's decision to hold the target range for the federal funds rate at the current level as we continue to assess incoming information and its implications for the outlook. But my baseline economic outlook continues to expect that we will need to increase the federal funds rate further to keep policy sufficiently restrictive to bring inflation down to our 2 percent target in a timely way. However, monetary policy is not on a preset course, and I will continue to closely watch

[11] See the October 2023 Federal Open Market Committee Statement, which is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm.

the incoming data as I assess the implications for the economic outlook and the appropriate path of monetary policy.

There are several uncertainties surrounding my baseline outlook that will influence my view of appropriate monetary policy going forward. First, much of the improvement in inflation over the past year has been due to supply-side improvements, such as improving supply chains, increases in labor force participation, and lower energy prices. It is unclear whether further supply-side improvements will continue to lower inflation. Some firms are now shifting their supply chains closer to home in place of more global supply chains. Government policies such as the CHIPS and IRA Acts are supporting these shifts by encouraging greater investment in developing domestic manufacturing capacity, including for semiconductors and electric vehicle batteries. How these investments work out over time may affect the productive capacity of the U.S. economy. And while these investments have the potential to increase productive capacity, over the next few years they may also create strong demand for labor and equipment in areas without the necessary physical resources to support the development, which may increase inflationary pressures. In my view, there is also a risk that over the coming months higher energy prices could reverse some of the recent progress made by supply-side improvements to bring overall inflation down.

Second, over the past year, the number of workers in the labor force has increased from improved labor force participation and other factors, including recent growth in work visa issuance for some immigrants. At the same time, the average pace of job gains has slowed somewhat and vacancies have declined, a sign that labor supply and demand may be coming into better balance. However, future gains in labor force participation

may be limited, since prime-age labor force participation is currently higher than pre-pandemic levels. It is also unclear whether all of the workers who retired or left the labor force during the pandemic will eventually return.

We also know that pandemic-era education disruptions from school closures and remote learning resulted in extensive learning losses. There is a real risk that these learning losses will limit the productivity of the American workforce in coming years. Over time, American workers who experienced these education disruptions may overcome the pandemic-era learning losses, but today, as young people leave education and transition into the work force, there is a risk that either the economy will experience lower long-term trend growth, or that the divide between those who suffered learning losses and those who did not results in vastly different economic and overall outcomes for this generation of American workers.[12]

The third of these uncertainties is the extent to which strong aggregate demand and the composition of spending will continue and contribute to inflationary pressures going forward. It is possible that consumption pattern changes that occurred during the pandemic will prove durable. Prior to the pandemic, goods consumption comprised just under one-third of overall consumption. During the pandemic, consumption shifted to a greater proportion of goods, like home office and gym equipment, in part because pandemic-related restrictions limited the opportunities available to consume services. As we emerged from the pandemic, the initial expectation was a return to stronger services

[12] National Centre for Educational Statistics data show fall of 2022–23 school year cohort of 13-year-old's score for reading and mathematics has declined to levels lower than 1992 levels, reversing steady gains achieved since then; see "Scores Decline Again for 13-Year-Old Students in Reading and Mathematics" on the Nation's Report Card's website at https://www.nationsreportcard.gov/highlights/ltt/2023. The decline is more pronounced among students with lower scores.

consumption, but goods consumption remains near 35 percent of overall consumption. If goods consumption continues to be a greater proportion of overall consumption, the expected deflationary effect from goods prices could be delayed.

There is also a risk to inflation from higher services consumption. With too few workers to fill the number of existing job openings, a continued increase in the demand for services may contribute to persistently high core services inflation. Additionally, a lack of fiscal restraint could further contribute to inflationary pressures.

Another uncertainty is the reaction of economic activity and inflation to the continuation of higher interest rates and tighter financial conditions. We don't yet know the full extent of the effects of tighter monetary policy and financial conditions on economic activity and inflation.[13] There are some signs of interest rate sensitivity for small business loans and corporate debt, and slightly higher delinquencies for existing credit card accounts and auto loans, in comparison to before the pandemic. However, the presence of cash buyers in the housing market has lowered some of the interest rate sensitivity in the housing sector. Further, many households continue to hold significant excess savings and are realizing ongoing savings from mortgages originated or refinanced when interest rates were low.

---

[13] The literature points to a wide range of estimates regarding the effects of higher interest rates on the economy. See, for example, Ander Perez-Orive and Yannick Timmer (2023), "Distressed Firms and the Large Effects of Monetary Policy Tightenings," FEDS Notes (Washington: Board of Governors of the Federal Reserve System, June 23), https://www.federalreserve.gov/econres/notes/feds-notes/distressed-firms-and-the-large-effects-of-monetary-policy-tightenings-20230623.html; Nitish Sinha and Michael Smolyansky (2022), "How Sensitive Is the Economy to Large Interest Rate Increases? Evidence from the Taper Tantrum," Finance and Economics Discussion Series 2022-085 (Washington: Board of Governors of the Federal Reserve System, December), https://www.federalreserve.gov/econres/feds/how-sensitive-is-the-economy-to-large-interest-rate-increases.htm. For a case study and an overview, see V. A. Ramey (2016), "Macroeconomic Shocks and Their Propagation," in John B. Taylor and Harald Uhlig, eds., *Handbook of Macroeconomics,* vol. 2A (Amsterdam: Elsevier), pp. 71–162.

In considering business investment and interest rate sensitivity, the evidence has been mixed.[14] The most recent Richmond and Atlanta Federal Reserve CFO Survey suggests that roughly 40 percent of respondents have already pulled back on investment requiring financing at current interest rates.[15] However, another 40 percent say that they are not interest rate sensitive, their financing or borrowing is not influenced by rates, or they do not know the level at which the rate would become an impediment.

Finally, given all of the considerations I have just discussed, it is not yet clear whether the appropriate level of the federal funds rate will need to remain at a higher level than before the pandemic in order to effectively foster low and stable inflation and support full employment. In my view, given potential structural changes in the economy, such as higher demand for investment relative to saving, it is quite possible that the level of the federal funds rate consistent with low and stable inflation will be higher than before the pandemic. In some respects, a higher longer-run level of the federal funds rate would be a welcome development, as this would allow the FOMC to more effectively respond to future negative economic shocks by lowering the policy rate. Structurally higher interest rates might also lead to less concern about the possible financial stability effects of reach-for-yield behavior, as higher interest rates ease pressure on institutions like life insurance companies and pension funds that manage extended-duration liabilities.

---

[14] See Steve A. Sharpe and Gustavo A. Suarez (2014), "Why Isn't Investment More Sensitive to Interest Rates: Evidence from Surveys," Finance and Economics Discussion Series 2014-02 (Washington: Board of Governors of the Federal Reserve System, January, revised September 2015), https://www.federalreserve.gov/econres/feds/why-isn39t-investment-more-sensitive-to-interest-rates-evidence-from-surveys.htm.

[15] See Zach Edwards and Daniel Weitz (2023), "How Are Interest Rates Impacting Spending? Evidence from the CFO Survey," Federal Reserve Bank of Richmond, Research & Commentary, September 27, https://www.richmondfed.org/research/national_economy/cfo_survey/research_and_commentary/2023/20230927_research_commentary.

Conclusion

In conclusion, I continue to see an unusually high level of uncertainty as I consider current economic conditions and my own views on the outlook for the economy and monetary policy. My colleagues and I will continue to make our monetary policy decisions at each meeting based on the incoming data and the implications for the economic outlook. I remain willing to support raising the federal funds rate at a future meeting should the incoming data indicate that progress on inflation has stalled or is insufficient to bring inflation down to 2 percent in a timely way.

We should keep in mind the historical lessons and risks associated with prematurely declaring victory in the fight against inflation, including the risk that inflation may settle at a level above our 2 percent target without further policy tightening. Returning inflation to the FOMC's 2 percent goal is necessary to achieve a sustainably strong labor market and an economy that works for everyone.