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Reflections on Uncertainty and Patience in Monetary Policymaking

Remarks at the Sloan School of Management at the Massachusetts Institute of Technology

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The views expressed today are my own, not necessarily those of my colleagues on the Federal Reserve Board of Governors or the Federal Open Market Committee.

Key Takeaways

1. **Collins remains optimistic that inflation can be brought back to 2 percent in a reasonable amount of time and with a labor market that remains healthy.** But she is realistic about the risks and uncertainties around that outlook. Uncertainty remains high in terms of the timing and full impact of monetary policy.

2. **Stronger-than-anticipated inflation and economic activity suggest that achieving the Fed's dual mandate goals may take longer than previously thought, and progress may be uneven.** Monetary policymaking in the current context requires patience and methodical assessment of the available constellation of information.

3. **There was noticeable progress last year towards price stability, driven largely by favorable supply developments (including labor productivity). But such rapid supply improvements may not continue, making demand moderation important.** Collins expects that slower growth will be needed to achieve a better balance with supply and ensure the economy remains on a path towards price stability.

4. **The current policy stance, which Collins views as being moderately restrictive, is appropriate for balancing the current two-sided risks (of easing too soon or holding too long).** Given the restrictive stance, Collins expects economic activity will eventually slow as needed for inflation to durably return to target. And she believes policy is well positioned to respond to incoming data, as the FOMC assesses the evolving outlook and risks.

5. **Collins believes that the economy's rebalancing also depends on demand and supply in the *labor market* coming into better alignment.** Focusing on the relationship between wages and prices, she notes that labor productivity trends have been favorable and should ultimately be reflected in higher compensation for workers. In this context, she believes there is scope for wages to catch up to past price and productivity increases over time without generating additional inflationary pressures.

6. **In assessing whether conditions are consistent with a potential easing of interest rates, Collins highlighted four areas of particular focus.** She will be looking for short- and longer-term inflation expectations remaining well anchored. And for further sustained disinflation – especially in the components that remain most elevated. She'll look for evidence that wages continue to evolve in a way that is consistent with price stability. And for ongoing indications that labor markets are moderating in an orderly way that better aligns labor supply and demand.

It is a pleasure to be with you today. My sincere thanks to Professor Kristin Forbes for inviting me, and to her colleagues at the Sloan School for hosting, including Edward Golding of the Golub Center for Finance and Policy.

As a former educator, I always enjoy being with students on campus. And this visit is particularly special since I earned my Ph.D. here at MIT. My time in the economics department was excellent preparation for a varied career – it involved lots of work; lots of learning; genuine investment from remarkable faculty; and many wonderful, long-lasting relationships.

Today I'd like to share my perspectives on the U.S. economy and monetary policy, as the Fed works to achieve its dual mandate from Congress in support of a vibrant economy. These comments reflect my own views, not necessarily those of my colleagues on the Federal Reserve's Board of Governors or the Federal Open Market Committee (FOMC), the Fed's interest rate setting committee.

I'll begin with a quick overview of the Federal Reserve and its varied roles in the economy and financial system; then discuss the economy's performance during the post-pandemic recovery, and monetary policy's role in restoring price stability. Let me preview my core policy perspective: I'm committed to bringing inflation sustainably back to our 2 percent target. While realistic about the risks and uncertainties, I remain optimistic that this can be accomplished in a reasonable amount of time and with a labor market that remains healthy. But there is significant uncertainty around that outlook, and the recent data lead me to believe this will take more time than previously thought. There is no pre-set path for policy – it requires decisions based on a methodical, holistic assessment of wide-ranging information.

The Boston's Fed's Portfolio and Mission

Congress established the Fed as the U.S. central bank more than 110 years ago. Our responsibilities all involve the strength and stability of the economy and the financial system, in the public interest. Economies have many dimensions, so the Fed's work has a broad range. I like to say the Boston Fed's mission is supporting a vibrant, inclusive economy that works for everyone, not just for some people.

There are 12 Federal Reserve Districts – and the Boston Fed's district (the First District) includes most of New England. We actively engage with stakeholders across the six states – to learn about economic experiences, challenges, and opportunities; and to provide transparency about what the Fed does, and why.

The Fed is best known for monetary policymaking, and the analysis and research that underpins it. We also supervise some of the nation's financial institutions, and provide back-end infrastructure and services for payments and the financial system. And we examine factors that could limit people from participating in the economy – motivated by our full-employment mandate – and support research and collaborations that expand prospects for community economic development.

Since I'm at MIT, I'll mention that the Federal Reserve – particularly the Boston Fed – has helped encourage innovation in financial technologies and payments systems, which we all rely on. We played key roles in the emergence of automated clearing, check imaging, and digitized procurement and payment tools for the U.S. Treasury. More recently, we worked – with MIT researchers – to explore the potential for a central bank digital currency, deepening our understanding and preparation in case Congress asks for one. And we recently built and launched FedNow, an instant-payments rail that enables all financial institutions to provide their customers with real-time payments.[1]

I'll turn now to the economy, my outlook, and monetary policy, referencing a few charts along the way.

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[1] For example, FedNow enables individuals to instantly receive their paychecks and use them the same day, and small businesses to more efficiently manage cash flows without processing delays. Over the coming years, customers of banks and credit unions that sign up for the service should be able to use their financial institution's interfaces to send payments instantly and securely. Learn more about the FedNow® Service at https://explore.fednow.org/about.

The Fed's Dual Mandate

Focusing on the Fed's dual mandate from Congress, price stability and maximum employment, **Figure 1** provides some historical context. The left panel shows inflation, using the Fed's preferred PCE measure.[2] The blue line is *total* 12-month inflation, while the red line is *core* inflation, which excludes the volatile though obviously important categories of food and energy. The green line shows the FOMC's 2 percent inflation target. The panel on the right depicts the unemployment rate, which typically recovers gradually after rising during recessions. The post-pandemic recovery has been highly unusual. After spiking, unemployment fell quickly and has now been below 4 percent since December 2021.

The chart further shows that, while significantly down from its peak, inflation remains above target. High inflation is like a tax that affects all of us. In my travels around New England, people share many examples of its challenges. Its toll is especially large for lower-income households, struggling to make ends meet. High inflation also affects firms, complicating their budgeting and pricing decisions. A high inflation environment is not consistent with maximum sustainable employment, which highlights the *complementary* nature of the Fed's dual mandate, over the medium and longer term – and the reason my commitment to fight inflation is resolute.

The FOMC has been focused on bringing inflation back down to the 2 percent target, by raising the federal funds rate to slow demand and help realign it with supply in both product and labor markets. After the FOMC began tightening in March 2022, rate hikes were unusually rapid – 525 basis points over just 16 months – moving the monetary policy stance from highly accommodative to restrictive. We have kept the funds rate at its current level of 5¼ to 5½ percent since July 2023, and are patiently assessing how long it will be appropriate to maintain this target range.

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[2] The Personal Consumption Expenditures Price Index (www.bea.gov/data/personal-consumption-expenditures-price-index)

Before saying more about my outlook and implications for monetary policy, I'd like to discuss some dimensions of this very unusual cycle. An underlying theme is that *uncertainty* – both in the data and in key economic relationships – remains elevated, reinforcing the need for patience.[3]

The Pandemic Shock, Rebound and Inflation Surge

As I already mentioned, the rebound in economic activity following the pandemic shock was surprisingly strong and rapid, relative to past recoveries, as depicted in **Figure 2**. Real output (GDP) is on the left, and payroll employment is on the right. For each chart, the blue line shows the pandemic drop and recovery, while the red line shows the average evolution of these measures over the previous three recessions.

The figure highlights the degree of disruption to economic output and employment from the pandemic-related shutdowns, and the comparatively quick recovery.[4] Much of this rapid rebound can be attributed to the unique nature of the pandemic-driven downturn, including highly accommodative monetary policy and an unprecedented degree of fiscal support.

However, the fast bounce-back came at a cost. Inflation surged, sparked by demand outstripping supply. Pandemic-related global production challenges, limited labor availability, transportation bottlenecks, and Russia's war in Ukraine, all worked to constrain supply — a situation that was compounded by a shift in consumption patterns

[3] For more on managing uncertainties in policymaking, see my talk for the 2023 Goldman Lecture in Economics at Wellesley College, "Reflections on Phasing Policy Amidst (Pandemic) Uncertainty", available at https://www.bostonfed.org/news-and-events/speeches/2023/reflections-on-phasing-policy-amidst-pandemic-uncertainty.aspx.

[4] These positive labor market developments have been associated with an unusually equitable recovery. Despite deep initial employment losses, recovery to pre-pandemic employment levels did not take longer for minority groups. Wage growth has also been relatively favorable for lower-paying occupations, benefitting less-advantaged groups. These points were highlighted in the Boston Fed's 2023 Economic Conference and discussed in my recent speeches. Conference materials can be found at https://www.bostonfed.org/news-and-events/events/economic-research-conference-series/rethinking-full-employment.

away from services towards goods. In this context, an essential part of restoring price stability entails realignment through a combination of supply improvements and demand moderation.

The surge in inflation was widespread, as is highlighted in **Figure 3**, which splits core PCE inflation into its three main components. I find this decomposition informative, not because the FOMC has sector-specific inflation targets, but because each component has very different dynamics and determinants. The blue lines show inflation over a 12-month horizon, comparable to Figure 1, while the red lines show a three-month horizon, reflecting more recent data, but also more volatility (or “noise”).

The charts show that the run-up in core goods inflation (the left panel) was particularly fast, due to households’ pandemic-related shift from spending on services (such as entertainment and travel) to goods (such as food at home, appliances, and electronics).

Housing inflation, and core services inflation excluding housing (the middle and right panels), also rose noticeably, but with a bit of a delay. The rise in housing inflation was driven by a surge in rents during the pandemic recovery, in part due to shortages in housing supply. And rapidly increasing labor costs contributed to the rise in inflation for other core services — a big, diverse sector in which wages tend to comprise a large share of firms’ expenses.

Evolving Progress toward Goals

While total core PCE inflation peaked in February 2022, sustained easing of price pressures began later in 2022, and was particularly notable in 2023, with core PCE inflation falling roughly 2 percentage points. This was the result of supply and demand moving into better alignment. Much of the economy’s surprising performance last year, especially in the second half, can be attributed to positive supply developments, including labor productivity.

In particular, supply improvements fostered significant disinflation in the core *goods* sector. Similarly, housing inflation moved down – with rent growth for new leases returning to near pre-pandemic levels, as additional supply of rental units came online. And inflation in other core services moderated as labor supply challenges and cost pressures improved.[5]

Two additional developments in 2023 signaled progress. The first relates to inflation expectations being “anchored,” or in line with readings historically associated with 2 percent inflation. Because expectations are a key determinant of current behavior, they influence actual inflation and its evolution, and are high on my “watch-list.” **Figure 4** shows a variety of expectations indicators. Longer-term expectations (the right panel) have remained well anchored throughout the downturn and recovery, consistent with credibility in the Fed’s commitment to 2 percent inflation. However, *short*-term inflation expectations (the left panel), which jumped in 2021, decreased to levels consistent with the Fed’s 2 percent inflation target by the end of 2023.

Second, price changes across narrowly defined industries were much less correlated in late 2023 than they had been in 2021 and 2022. This reduced “synchronicity” is consistent with large price gains being less common across sectors, and is a characteristic of low-inflation regimes.[6]

While some decline in inflation had been widely anticipated, output growth was stronger than expected at the end of 2023 — increasing 3.1 percent over the previous

[5] Labor supply improvements included both increased labor force participation of prime-age workers (especially women, despite dependent care challenges), and a rise in immigration. As of April 2024, the 12-month average prime-age participation rate for men was essentially the same as before the pandemic (in February 2020), while the rate for prime-age women had surpassed its pre-pandemic level by a noticeable margin. For more on immigration, see Wendy Edelberg **and** Tara Watson**, "**New immigration estimates help make sense of the pace of employment," March 7, 2024, https://www.brookings.edu/articles/new-immigration-estimates-help-make-sense-of-the-pace-of-employment/.

[6] For more details about sectoral price-change synchronicity, see Claudio Borio, Marco Lombardi, James Yetman, and Egon Zakrajšek, 2023, “The Two-Regime View of Inflation,” BIS Papers No. 133, https://www.bis.org/publ/bppdf/bispap133.pdf.

year. Given this robust growth, the realized decline in inflation was remarkable, and of course welcome.

It is now May 2024, and while economic activity has remained relatively robust, and the labor market healthy with signs of coming into better balance, we have not, unfortunately, seen further disinflationary progress. **Figure 3** shows that, over shorter horizons, inflation has picked up in both core goods and core services excluding housing, and is moving sideways for housing. But unevenness in the disinflation process is to be expected – I am not surprised to see some less welcome news after such a string of positive inflation developments.

Going forward, we cannot necessarily count on continued supply side progress to reduce inflation amid strong economic activity. In particular, the core goods sector is unlikely to contribute much more to the disinflation process, though it is possible that some previous improvements are not yet fully reflected in prices. While new-tenant rent growth has generally returned to pre-pandemic levels, rents of existing tenants are still catching up, and continuing to put pressure on housing inflation. And additional labor supply and productivity gains are highly uncertain.[7]

Therefore, progress on inflation will very likely require lower growth in *demand*, particularly to facilitate further slowing of core non-housing services inflation.

The Adjustment Process Going Forward

Against this backdrop, a key question is how to think about the realignment of supply and demand, going forward. While there are many dimensions to consider, I want to focus on the relationship between wages and prices, which is especially important for core services excluding housing. In particular, let's explore a common concern that rapid wage growth may be fueling price pressures, preventing disinflation.

[7] We may already have seen most of the benefits from the resolution of global supply-chain bottlenecks. It is also unclear whether the recent growth of labor productivity can be sustained. Moreover, immigration flows are difficult to predict, and we cannot count on additional increases in native-born labor supply, though there could be scope for some older workers to remain in or reenter the workforce.

Figure 5 shows the recent evolution of both wage growth (the blue line), measured by the ECI[8] and PCE price inflation (the red line).[9] Recent wage growth is above its pre-pandemic range, and the current gap between wage growth and price growth is relatively large.

However, the chart also shows that inflation grew much faster than wages earlier in the recovery – so that wages are, in part, catching up to past price increases. Moreover, real wages (or wages adjusted for inflation) should track growth in worker productivity over the medium to longer run. But the real wage growth observed over the course of this recovery has yet to match measured productivity gains.[10]

Figure 6 illustrates this point by showing the gap between real wages and productivity.[11] Real wages (the blue line) fell during the pandemic and initial recovery, before retracing most of the decline. By contrast, labor productivity increased notably at the start of the pandemic, as production initially shifted from lower-productivity services to higher-productivity goods. It then decreased some during the unusual economic reopening and recovery, but has picked up again more recently.

The main takeaway from the evolution of wages, prices, and productivity is that labor remains less expensive than it was before the pandemic. Importantly, this conclusion also holds when we consider wage and price indicators measured from the perspective of employers. Labor now accounts for a lower share of businesses' costs

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[8] Employment Cost Index (https://www.bls.gov/eci/home.htm).

[9] Of course, there are other possible measures of employee wages and of inflation. The ECI and PCE measures provide a helpful employee-level perspective, and these are used in Figure 6 and to construct real wages in Figure 7. A similar relationship would hold from an employer-level perspective using indicators that track labor costs and sales prices for firms.

[10] On wage dynamics and how they relate to prices and productivity, see Philippe Andrade, Falk Bräuning, José L. Fillat, and Gustavo Joaquim, 2024, "Is Post-pandemic Wage Growth Fueling Inflation?" Federal Reserve Bank of Boston Current Policy Perspectives, 2024-1, https://www.bostonfed.org/publications/current-policy-perspectives/2024/is-post-pandemic-wage-growth-fueling-inflation.aspx.

[11] Real wages are measured as the ratio between the ECI and the PCE price index. Labor productivity is measured as output per hour for the whole economy.

overall, which is reflected also in a declining portion of output going to compensate workers. The labor share is now roughly 2 percentage points below its 2019 average for the total economy. This pattern also holds for most industries.

Overall, firms appear well positioned to potentially absorb some faster wage growth without placing additional pressures on prices. I say potentially, because given robust demand, firms may still try to pass higher wages fully through to prices, and such dynamics may have been at play in the first quarter of this year. That said, continued productivity gains could allow further solid but non-inflationary wage growth.

Interestingly, other highly industrialized countries have not seen similar favorable labor productivity developments, as shown in **Figure 7**. Reasons for this difference are unclear, and warrant study. While productivity gaps were evident before the pandemic, one possible explanation is that differences in the labor market reallocation process across countries following the pandemic shock may have resulted in better matches between employers and employees in the United States.

Whatever the reason, it seems likely that recent U.S. productivity gains largely represent a level adjustment rather than a persistent increase in productivity growth. Still, my employer contacts around New England continue to mention ongoing technological investments and process optimization efforts. This suggests there could be more to come in this improvement in productivity.

Still, productivity's future path is highly uncertain. A slowdown in activity will be needed to ensure that demand is better aligned with supply for inflation to return durably to the Fed's 2 percent target.

Monetary Policy's Role

In this context, the role of monetary policy is to restrain demand, to help facilitate the realignment process. The recent upward surprises to activity and inflation suggest the likely need to keep policy at its current level until we have greater confidence that inflation is moving sustainably toward 2 percent. As emphasized in last week's FOMC statement, the committee's decisions will remain data dependent, carefully assessing the constellation of available information.

Policy needs to not only reflect a steadfast commitment to restoring price stability, but also aim to preserve a healthy labor market (the other facet of our dual mandate). There are risks from easing too soon, and from holding for too long, which would lead to unnecessary economic disruption. The current policy stance, which I view as being moderately restrictive, may be appropriate for balancing risks that are two-sided.

I do expect that demand will eventually slow as needed to better align with supply — but the timing and magnitude of moderation remain uncertain. It is possible that policy became restrictive more recently than thought, and we have not yet seen its full impact, especially if the economy becomes more interest-sensitive over time, as firms refinance their existing low-cost debt and households exhaust their excess savings accumulated earlier in the pandemic.

The current situation requires methodical perseverance, recognizing that progress will take time and continue to be uneven. Expecting *all* indicators to be well aligned is too high a bar to start normalizing policy. Here are four of the many things I'll be watching for:

- Short- and longer-term inflation expectations remaining well anchored.
- Further sustained disinflation – especially in the components that remain most elevated.
- Evidence that wages continue to evolve in a way that is consistent with price stability.
- Ongoing indications that labor markets are moderating in an orderly way that better aligns labor supply and demand.

Overall, policy remains well positioned to respond to incoming information, as we assess the evolving outlook and risks. And the unusual nature of this cycle, the continued high degree of uncertainty, and still-elevated inflation, all highlight the importance of patience, analysis, and a bit of humility.

Concluding Observations

I'll end by saying again what a pleasure it is to be here at MIT. I'll bring up **Figure 8** and say to the students, the Sloan School mission statement includes the phrase "to develop principled, innovative leaders who improve the world." I encourage you to take each aspect of this to heart, knowing that you have much to offer our world. Extraordinary things happen when we care, study issues, collaborate with purpose, and act. The slide shows some of the people I meet, as we try to do just that.

My best wishes to each of you. And now I look forward to the conversation with Professor Forbes, and your questions.