PIIE PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

POLICY BRIEF

26-3 The COVID Era Inflation Surge: Causes, Consequences, and Policy Lessons

Karen Dynan and David Wilcox
January 2026

Note: This Policy Brief is part of a series titled *Understanding the COVID Era Inflation*. PIIE gratefully acknowledges financial support from the Smith Richardson Foundation for the research presented in this Policy Brief. The research was conducted independently; funders are not given the right to review a publication before its release.

1. INTRODUCTION

In the wake of the COVID-19 pandemic, inflation surged in the United States and across much of the globe. In the United States, the 12-month change in prices, as measured by the personal consumption expenditures (PCE) price index, rose to a peak above 7 percent in mid-2022, marking the most significant outbreak of inflation since the early 1980s.[1] Inflation also reached levels not seen in decades across much of Europe, the United Kingdom, and a range of other advanced economies and emerging markets, as shown in figure 1. The outbreak was particularly unsettling because it followed 40 years of generally low and stable inflation in many of these countries. Inflation has receded markedly from its peak in most economies. In the euro area, it has returned to the European Central Bank's target, but in many other countries, it remains above target, and concerns about the durability of the disinflation persist.

The burst of inflation was enormously costly for both businesses and—especially—households. Even where nominal wages accelerated on average, they lagged behind price increases for many households, eroding real incomes and living standards. Uncertainty about the persistence of high inflation made financial planning more difficult for households and firms. Although the decline in inflation from its peak occurred faster, and with less collateral damage to employment and output than most experts had expected, the episode left lasting scars. In particular, the cumulative rise in prices appears to have become an

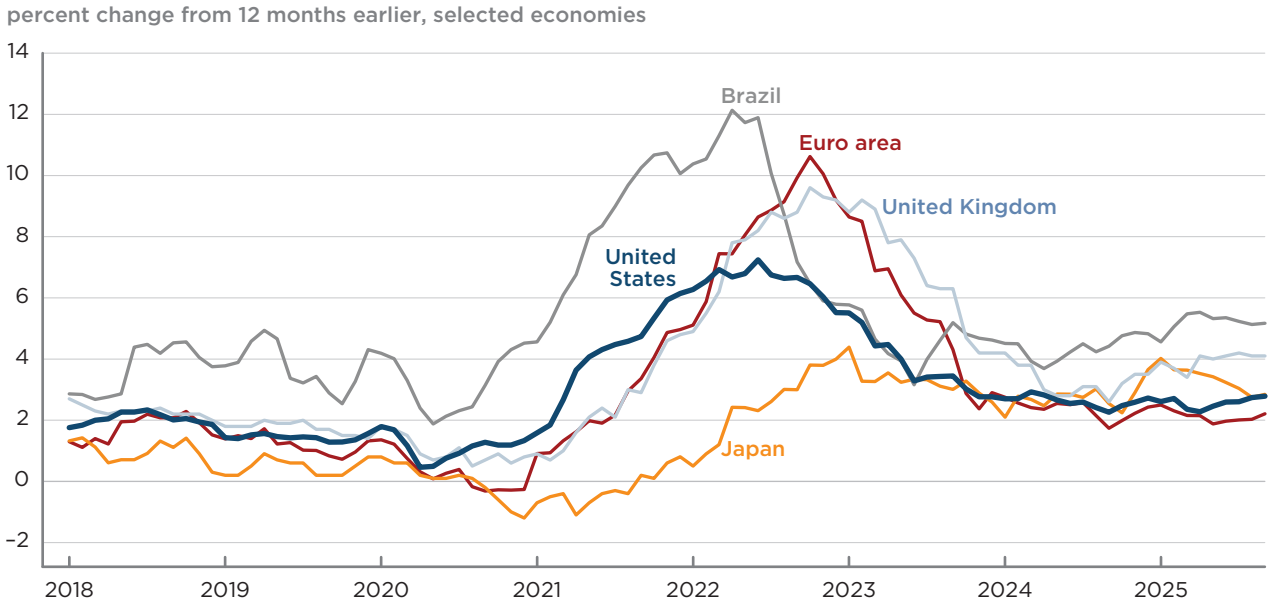
Karen Dynan is nonresident senior fellow at the Peterson Institute for International Economics and professor of the practice in the Harvard University economics department.

David Wilcox is senior fellow at the Peterson Institute for International Economics and director of US economic research at Bloomberg Economics.

1 Throughout this Policy Brief, we focus on inflation measures emphasized by each economy's respective monetary authority: the personal consumption expenditures (PCE) price index for the United States, the harmonized index of consumer prices (HICP) for the euro area, and the consumer price index (CPI) for many other countries.

Figure 1

Inflation surged after the pandemic in many economies, January 2018–September 2025



Note: Figure shows each economy's primary policy-relevant measure of consumer prices: personal consumption expenditures (PCE) price index for the United States, harmonized index of consumer prices (HICP) for 19 euro area economies, and consumer price index (CPI) for the United Kingdom, Japan, and Brazil. Data are reported through September 2025.

Sources: US: Bureau of Economic Analysis via Federal Reserve Economic Data (FRED); euro area: Eurostat; UK: Office for National Statistics (ONS); Japan: Statistics Bureau Japan; Brazil: Instituto Brasileiro de Geografia e Estatística.

enduring source of hardship for some households and a broader source of public dissatisfaction, shaping perceptions of economic performance even as headline inflation has come down.

Motivation and Objectives

This Policy Brief aims to synthesize and distill lessons from a broad body of work produced as part of the Peterson Institute for International Economics' Understanding the COVID Era Inflation project. The project brought together an extensive group of experts to examine different facets of the inflation surge, including supply-side disruptions, demand dynamics, labor markets, fiscal and monetary policy interactions, and international spillovers. The primary aim of the overall project is to equip decision-makers in the future with a well-grounded understanding of the post-pandemic inflation experience, so they can make informed choices if and when they confront an undesirable rise in inflation—whether or not the surrounding circumstances resemble those of the early 2020s. The COVID era episode was shaped by an unusual confluence of shocks and policy responses, but it nonetheless raises enduring questions about the interaction of demand, supply, expectations, and policy frameworks that are likely to recur in different forms.

For fiscal policymakers, a central question is whether pandemic-era decision-makers erred in providing too much support for demand, especially given the excess saving that appeared to have accumulated in the early part of the pandemic and the uncertainty about how quickly supply could ramp up to meet

a surge in demand. Many analysts concluded—with the benefit of hindsight—that fiscal stimulus during the Great Recession of 2007–09 had been too timid and was withdrawn too quickly. Policymakers responding to the economic collapse triggered by COVID-19 were determined not to repeat that mistake. Assessing whether that determination contributed to an overshooting of demand is essential for evaluating fiscal policy choices in future downturns. It will also be important not to overlearn the lesson of the COVID era and reproduce the sluggish recovery from the global financial crisis.

Monetary policymakers, for their part, erred—again, with the benefit of hindsight—in depending so heavily on the presumption that inflation would prove "transitory." Many observers (notably including Fed Chair Jerome Powell)[2] concluded that the rate-hiking campaign was launched later than it should have been. At the same time, inflation has declined considerably from its peak, while labor-market conditions remained relatively resilient through at least mid-2025. The outcome thus far is clearly better than seemed likely in mid-2022, when inflation was at its peak. This raises important questions about how to interpret the episode. Is the outcome best seen as a one-time fluke, reflecting favorable supply developments or good luck? How much of a difference would it have made if policymakers had begun tightening significantly earlier? A final issue is whether the anchoring of inflation expectations—which likely played an important role in the relatively painless disinflation—is now less secure than at the beginning of the episode because households and businesses may have come to sense that high inflation is not an impossibility.

Among the key lessons from the project:

- **Inflation is deeply unpopular, and its social and political costs can be large even when labor market damage is limited**. The experience of this episode suggests that policymakers should weigh the costs of inflation carefully when evaluating trade-offs during periods of strong demand, within existing policy frameworks, recognizing that inflation can generate outsized welfare and political consequences.
- **Inflation surged globally, but its specific underlying drivers differed across economies, with implications for policy**. Countries were affected to differing degrees by demand- and supply-side forces—an important distinction because the appropriate policy response depends critically on which forces are dominant in a given national context.
- **In the United States, excess demand combined with inelastic supply to generate the inflation surge**. The scale and timing of US fiscal support, particularly the $1.9 trillion American Rescue Plan (ARP) in 2021, pushed aggregate demand up against short-run supply constraints—though in real time there was uncertainty about the appropriate magnitude of support, and many policymakers regretted that more fiscal support had not been provided during the financial crisis era.
- **On the fiscal side, the difficulty of identifying real-time capacity constraints strengthens the case for greater reliance on automatic stabilizers**. Automatic stabilizers and rules-based fiscal mechanisms can help modulate support

2 Rachel Siegel, "Fed Chair says Interest Rates Should Have Gone Up Sooner," *Washington Post*, May 12, 2022.

as conditions change, reducing the likelihood that fiscal policy provides too much or too little economic support.

- **On the monetary side, in contrast, policy flexibility is especially critical in environments when uncertainty is elevated, and forecasting errors are likely**. The COVID era experience illustrates how difficult it can be to assess, in real time, the future evolution of inflation, especially when truly extraordinary shocks—far outside the range of experience of forecasting models—are hitting the economy.
- **Anchored inflation expectations played a critical role in enabling rapid disinflation in the early 2020s—but they cannot be taken for granted going forward**. Repeated or prolonged inflation shocks could weaken that anchor in the future, leading to higher inflation than otherwise and requiring tougher policy measures to combat price pressures.

Beyond macroeconomic stabilization policy, policymakers of all varieties will need to assess whether the nation's ability to measure inflation is up to the task in the context of an increasingly digital and immaterial economy. The measurement situation is particularly worrisome given the growing resistance of both households and businesses to respond to traditional surveys, as well as the severe funding constraints and staffing shortages facing statistical agencies in some countries, including the United States. Weaknesses in inflation measurement complicate real-time decision-making and may distort assessments of both economic conditions and policy effectiveness.

Finally, researchers will need to take stock of what has been learned to date about this episode and identify where important questions remain unanswered. Clarifying the boundaries of current understanding is essential for guiding future empirical work and for ensuring that the lessons drawn from the COVID era inflation experience contribute to better policy decisions going forward.

In this Policy Brief, we provide a synthetic overview of the COVID era inflation experience, with a focus on its origins, the policy responses it elicited, and its economic consequences. We bring together insights from across the individual contributions to the project to highlight common themes, areas of agreement and disagreement, and the key tradeoffs facing policymakers.

Section 2 recounts how the inflation surge unfolded. Section 3 evaluates key proposed contributors to the inflation surge. In section 4, we discuss the limits and strengths of policymakers' tools for economic analysis. Section 5 concludes with the key lessons for policymakers in the future.

Our goal is not to offer a definitive account of this episode but rather to distill the main lessons that emerge from the project as a whole and to clarify what they imply for future policymakers and researchers confronting inflationary pressures in different circumstances.

2. THE ECONOMIC BACKDROP: HOW THE INFLATION SURGE UNFOLDED

This section briefly recounts how the surge in inflation emerged and evolved during the economic recovery from the COVID-19 shock, providing a factual backdrop for the analysis that follows. The goal is not to adjudicate competing explanations at this stage, but rather to establish a common chronology and to highlight patterns that are relevant for evaluating different theories of the inflation surge.

The Initial Inflation Surge

In the United States, inflation moved above the Fed's 2 percent target in early 2021 as the economy was rebounding from an episode of extraordinary economic disruption. The onset of the COVID-19 pandemic a year earlier triggered abrupt shutdowns, a collapse in economic activity, and massive job losses, placing millions of American households under severe financial strain. With the slow and painful recovery from the 2007–09 Great Recession still fresh in policymakers' minds, their response was swift and forceful. A powerful combination of fiscal support, highly accommodative monetary policy, and financial market interventions was deployed to stabilize incomes, sustain demand, and limit lasting damage to the economy.

US policy remained strongly supportive in early 2021. Although economic activity was continuing to recover at a rapid pace as vaccination rates increased and public health restrictions eased, there was still considerable uncertainty about the effectiveness of vaccines against emerging variants and thus the durability of the recovery. Against this backdrop, monetary policy remained accommodative, and fiscal support was extended substantially further. In March 2021, Congress enacted and President Joseph R. Biden Jr. signed the American Rescue Plan, providing an additional $1.9 trillion of fiscal support—roughly 8 percent of 2021 US GDP.

US PCE inflation on a 12-month basis had sunk further below the Federal Reserve's target in the early pandemic period. It remained below target through February 2021 but then began to move up swiftly. By the middle of the summer of 2021, core inflation had risen to around 4 percent, with overall inflation higher still. Inflation continued to climb through the second half of 2021 and into 2022, with core inflation peaking around 5½ percent and overall inflation topping out around 7 percent by the middle of that year.

In *The Inflation Surge in Europe* (2024), Patrick Honohan shows that the contour of inflation in Europe was broadly similar, albeit with some differences in timing and composition. As in the United States, inflation rose sharply during the post-pandemic recovery, with price pressures spreading across major components of consumer spending. Inflation in the euro area built more slowly at first, reflecting a more gradual recovery in demand and less expansive fiscal support, but it subsequently reached a higher annual peak rate than in the United States. Energy and food prices played a particularly prominent role, with Europe's heavy reliance on imported natural gas—especially from Russia—leaving the region especially exposed to the surge in global energy prices following the invasion of Ukraine. Despite these differences in timing and proximate drivers, cumulative inflation over the four years ending in 2023 was only slightly lower in the euro area than in the United States. Inflation outcomes also varied widely across European countries, even within the euro area, shaped by differences in energy exposure and in national fiscal measures designed to shield households from rising costs. Inflation was markedly lower in Switzerland than in the other countries.

Inflation Across Components: A Sectoral Perspective

A useful way to understand how inflation took hold is to trace its progression across major components of consumer spending. In *The Trinity of COVID Era Inflation in G7 Economies* (2024), Joseph Gagnon and Asher Rose examine this

evolution across the Group of Seven (G7) economies and identify a common sequencing in the behavior of prices for durable goods, nondurable goods, and services. Despite important cross-country differences in institutions, energy exposure, and policy responses, they find broadly similar patterns in the timing and composition of inflation across advanced economies. The discussion below draws heavily on their sectoral chronology and emphasis on cross-country commonalities, while also incorporating additional interpretation where relevant for understanding country-specific experiences. This sectoral chronology provides additional context for understanding the drivers of the inflation surge and helps discipline competing explanations by highlighting where—and when—price pressures first emerged.

The first sector to experience upward pressure on inflation, early in 2021, was durable goods. With household incomes supported by large-scale countercyclical policy measures, consumers had ample wherewithal to spend. At the same time, restrictions on in-person activity sharply constrained spending on some services, such as dining out and travel. As a result, consumers redirected spending toward durable goods, producing a rapid and unusually large shift in the composition of demand.

Production capacity and supply chains proved less able to scale up quickly than many had expected. When sharply rising demand for durable goods met relatively inflexible production and delivery channels, prices rose rapidly, contributing to a sharp increase in durable goods inflation.

As Gagnon and Rose emphasize, these dynamics were especially pronounced in motor vehicles in the United States. Early in the pandemic, many automakers canceled orders for the semiconductors that had become ubiquitous in modern vehicles, fearing a prolonged collapse in demand. When the decline in vehicle demand proved short-lived, automakers found themselves desperately short of this critical component—a shortage that could not quickly be reversed because chip makers by that time had committed much of their productive capacity to other customers. At the same time, used cars were also in short supply because rental car companies had purchased far fewer vehicles in 2020 due to the collapse in travel, leaving fewer late-model cars to sell into the used car market in 2021. Prices surged for both new and used vehicles.

A second major source of inflationary pressure was nondurable goods. In the United States, prices in these categories began to accelerate in the spring of 2021, a few months after inflation began to pick up in durable goods. More broadly in G7 countries, although prices of nondurables rebounded in 2021 from their sharp drop in 2020, it was not until Russia's invasion of Ukraine in February 2022 caused a spike in global commodity prices that inflation in these categories truly surged. The effects of the commodity shock were especially pronounced in Europe, where the cutoff of natural gas supplies caused severe hardship for households and businesses. Consumers in the United States and Canada were much less affected by the natural gas shock than their European counterparts, largely because the North American natural gas market was not closely integrated with the European market. Even so, energy and food prices rose in North America as well, contributing to a further rise in nondurable goods inflation.

Inflation in services also began to pick up in the spring of 2021 in the United States, particularly outside of housing-related components. Given the labor-

intensive nature of many service industries, tight labor markets were a likely source of upward pressure on prices. Even though the unemployment rate—the most commonly cited measure of labor market slack—had not fallen sharply by that point, other evidence, including rising job openings and voluntary quits, suggested that labor market conditions were becoming taut. Wage growth accelerated, particularly in labor-intensive service industries, and employers passed these higher labor costs on to consumers. While services inflation did not rise as sharply as goods inflation, it proved more persistent over time.

From Peak Inflation to Disinflation

As inflation rose rapidly in 2021 and 2022, many observers feared that bringing it back down would require a prolonged period of economic weakness and a sharp increase in unemployment. In the event, inflation abated more quickly than many experts had anticipated, both in the United States and in Europe.

In the United States, inflation peaked in mid-2022 and then declined steadily over the next year and a half. Overall PCE inflation (measured on a 12-month basis) fell below 3 percent in late 2023 and core PCE inflation fell below that mark in the spring of 2024. Notably, the disinflation process occurred without the kind of pronounced downturn in employment and output that had often accompanied past efforts to bring inflation under control. Since early 2024, the disinflationary process has essentially stalled out, with both the overall and core measures remaining noticeably above the Fed's 2 percent target.

In Europe, inflation peaked later than in the United States, reflecting the larger and more persistent impact of energy price shocks. However, inflation fell rapidly as those shocks began to reverse. By late 2023, euro area inflation had moved back to roughly 2.5 percent. Since mid-2025, it has been essentially back at the ECB's 2 percent target.

The relatively rapid decline in inflation likely reflected a combination of forces. Aggregate demand softened as central banks tightened monetary policy (beginning in March 2022 in the United States and July 2022 in Europe) and as pandemic-era fiscal stimulus faded. At the same time, supply-side pressures eased as supply chains normalized, the composition of demand reverted more toward pre-COVID patterns, and commodities prices retreated from their peaks.

Even though inflation ultimately came down more quickly, and with less damage to the labor market, than many had feared, it nonetheless proved costly both economically and politically. Joanne Hsu provides a striking illustration of this point in her paper, *The Influence of Gasoline and Food Prices on Consumer Expectations and Attitudes in the COVID Era* (2024). At the end of a 15-year rise in inflation culminating in 1979—when inflation reached levels considerably higher than those seen during the COVID era episode—21 percent of consumers reported hearing negative news about inflation. By contrast, in June 2023, nearly twice as many consumers reported hearing negative news about inflation, even though inflation rates were much lower than in the earlier period. It is not clear whether the difference somehow reflected a greater vulnerability to inflation, a drastic change in the media environment, or a combination of both.

The broader costs may be larger still. In 2025, extensive media coverage of the Trump administration's tariff actions appears to have heightened concerns among many American households that inflation could surge again in the near

future. If a legacy of the COVID era inflation episode is that inflation expectations are now less firmly anchored than before, that would represent an additional and potentially substantial cost of the experience.

3. POTENTIAL DRIVERS OF THE INFLATION SURGE

The COVID era inflation surge has been the subject of intense debate over its causes, with a range of proposed explanations attracting both adherents and critics. This section uses the evidence assembled in the project papers to evaluate several of the main candidates put forward as drivers of the surge. Although the findings resonate with parts of the broader literature, the value of this exercise lies in bringing together complementary perspectives and empirical approaches to shed new light on the relative roles of different forces.

Fiscal Policy

Fiscal policy has been among the most debated potential drivers of the COVID era inflation surge. Many countries mounted aggressive fiscal responses to the pandemic, which played a crucial role in protecting household incomes and buffering the initial economic shock. At the same time, these policies sparked a debate about whether the scale of support contributed to excess demand and thereby fueled inflation. Nowhere has that debate been more intense than in the United States, where fiscal stimulus amounted to roughly 23 percent of pre-pandemic GDP (Swagel 2021)—more than double the size of the response to the global financial crisis and substantially larger than the support enacted in most other advanced economies. Relative to many other advanced economies, US fiscal support was not only larger but also delivered more quickly and directed more heavily toward households, increasing the likelihood that it would translate into near-term demand pressures.

In *Fiscal Policy and the Pandemic-Era Surge in US Inflation: Lessons for the Future* (2024), Karen Dynan and Douglas Elmendorf examine the US experience, with particular attention to the $1.9 trillion American Rescue Plan (ARP) enacted in March 2021. Their analysis of contemporaneous projections from the Congressional Budget Office, the Federal Open Market Committee (FOMC), and private-sector forecasters shows that most analysts expected the additional stimulus to hasten the recovery without materially raising inflation. In retrospect, however, the assumption that supply would expand smoothly to meet the additional demand appears questionable. The ARP was substantially larger than contemporaneous estimates of the remaining output gap, and the economy was already on a trajectory of continued rebound at the time it was enacted.

The authors present a range of evidence suggesting that the inflation surge was driven primarily by excess demand encountering inelastic supply, rather than by adverse supply shocks alone. A closer examination of several prominent supply-side explanations—including the pandemic-related decline in labor force participation, semiconductor shortages, and the effects of the war in Ukraine—indicates that these factors likely contributed less to inflation than is often assumed. The timing and breadth of the price acceleration further support the centrality of a broad-based demand shock. Core PCE inflation rose sharply in early 2021, and by late summer even 12-month trimmed-mean PCE inflation, which excludes extreme price movements, was running materially above its range

of the previous decade. At the same time, price increases across a wide range of categories rose well above their historical norms, consistent with a broad-based demand shock rather than a limited set of adverse supply developments.

Drawing these strands together, Dynan and Elmendorf emphasize the importance of accounting for supply inelasticity when designing fiscal policy. Even when output appears to be below potential, pushing demand too aggressively can generate outsized inflationary pressures if the economy is already operating close to capacity or facing constraints on its ability to expand supply. They also stress the importance of assessing whether the scale of a proposed intervention is appropriate given the estimated shortfall in demand relative to supply.

Supply Chain Breakdowns

Discussions of post-pandemic inflation have frequently emphasized "supply shocks," but the term is often used imprecisely. Dynan and Elmendorf draw an important distinction between true supply shocks and supply constraints. They define supply shocks as idiosyncratic and often temporary shifts in the aggregate supply curve that raise prices at any given level of output. By contrast, supply constraints arise when strong demand pushes the economy onto a steeper portion of the supply curve, so that additional demand translates disproportionately into higher prices rather than higher output. This distinction matters for evaluating policy trade-offs because inflation driven by adverse supply shocks can present policymakers with harder choices given that such shocks may reverse in short order and that restraining demand to offset their inflationary effects risks exacerbating any shock-induced losses in output and employment. As discussed earlier, Dynan and Elmendorf argue that classic supply shocks played a limited role in fueling post-pandemic inflation.

Did Supply Chains Deliver Pandemic-Era Inflation? (2024) by Phil Levy provides a more detailed and focused examination of supply chains and their role in the inflation episode. Levy challenges the widely held narrative that breakdowns in supply chains were a primary driver of pandemic-era inflation. He shows that, despite highly visible strains—such as shipping delays, port congestion, and empty shelves—the volume of goods delivered to US consumers increased sharply. Real consumption of durable goods rose by more than 30 percent between early 2020 and 2021, and real imports expanded by 19 percent between late 2019 and mid-2022. These patterns are difficult to reconcile with a negative supply shock. Instead, they point to a large and sustained surge in demand overwhelming a constrained but fundamentally functioning logistics system. Levy notes that the highly visible indicators of strain made supply chain failures a compelling explanation for inflation, even though the underlying quantity data point instead to demand overwhelming a stressed but operational system.

Levy also considers what lessons this experience offers for improving supply chains, but he tempers expectations about what can realistically be achieved—and at what cost. Incremental efficiency gains, such as better coordination and smoother logistics, may yield benefits at the margin. However, large-scale investments aimed at maintaining excess capacity are unlikely to be economically viable. Expanding capacity in response to sudden demand surges, whether by

ordering new ships or building semiconductor fabrication plants, typically takes years and often comes online after the peak in demand has passed. For this reason, Levy concludes that better demand management, rather than attempts to engineer large buffers of spare capacity, is essential for reducing the risk of similar inflationary episodes in the future.

Monetary Policy

Many central banks, especially the Federal Reserve, have been criticized for having been slow to recognize how serious and persistent the COVID era inflation surge would prove to be. In the United States, the Federal Reserve did not raise its policy rate above the effective lower bound until mid-March 2022. At that point, the most recent readings on PCE inflation (for the 12 months ending in January 2022) were 6.1 percent (overall) and 5.2 percent (core)—well above the Fed's 2 percent target.[3]

Monetary policymakers were slow to react in part because they believed for much of 2021 that the inflationary impulse would be merely transitory.[4] That assessment turned out to be seriously mistaken. An important question nonetheless remains: How much difference would it have made if policymakers at the Fed and elsewhere had recognized earlier the scale and persistence of the inflationary pressures that lay ahead?

In *US Monetary Policy and the Recent Surge in Inflation*, David Reifschneider addresses this question for the United States by conducting counterfactual simulations using FRB/US, one of the Federal Reserve staff's principal macroeconomic models. His analysis is based on an evolving historical baseline that incorporates incoming economic data and surveyed financial market expectations for real activity, inflation, and interest rates, updated each quarter as published data and survey assessments of medium-to-long-term outlooks change. He then assumes that beginning in early 2021 the FOMC followed a Taylor-style policy rule of the sort it had historically followed prior to the pandemic. This rule "would have called for raising the federal funds rate appreciably earlier than the FOMC did, and over time by considerably more, in response to both the surge in inflation and evidence that the labor market was far more overheated than the unemployment rate alone suggested" (p. 2).

Reifschneider further assumes that the FOMC provided forward guidance that it would strictly follow this policy rule from then on and would also curtail its large-scale asset purchases earlier and at a lower level than it did in practice (and than was anticipated by financial market participants). To estimate the potential effectiveness of this much less accommodative strategy, Reifschneider assumes that the FOMC's counterfactual forward guidance would have been completely credible and that agents would have revised their expectations accordingly.

To gauge the robustness of his findings regarding the potential effects of tighter monetary policy, Reifschneider conducted simulations using four different specifications of inflation dynamics in the United States, calibrated to take

3 These estimates correspond to the data available at the time. Estimates for inflation in January 2022 have since been revised up a bit—to 6.3 percent and 5.4 percent for the overall and core categories, respectively.

4 See Powell (2024) for a discussion of the Federal Reserve's thinking along these lines.

account of a range of published estimates of the slope of the US Phillips curve and the persistence of actual and expected inflation.[5] He also ran simulations of a modified version of the FRB/US model in which aggregate spending is twice as sensitive to movements in interest rates and other financial factors.

Reifschneider's key finding is that "across almost all the permutations of the Phillips curve and other simulation assumptions, the counterfactual monetary policy does little to check inflation in 2021 and reduces it by only a few tenths of a percentage point in 2022, although the simulations do show PCE inflation moving somewhat more quickly back to the FOMC's 2 percent target in 2023 and 2024" (p. 3). These results do not entirely exonerate the Federal Reserve—nor the other central banks that were similarly late to tighten their respective policies—but they do suggest that an earlier and much more aggressive tightening would likely have had only quite limited effects on the inflation surge itself. In this sense, the simulations point to forces outside the direct control of monetary policy as having played the dominant role in driving inflation higher.

In *Was Something Structurally Wrong at the FOMC?* (2024), Alan Blinder examines the related issue of why the FOMC was slow in beginning to tighten the stance of monetary policy. He starts by rejecting the common explanations that the committee had become excessively dovish and that policymaking committees are inherently slow to act. More likely, Blinder argues, the delay in raising the federal funds rate stemmed from a forecasting error, specifically a belief that inflation would not rise to the levels it ultimately reached and would recede more quickly than it did.

Digging one layer deeper, Blinder considers the possible role of the new monetary policy "framework" that the FOMC adopted in August 2020. He highlights two features that may have made the committee more inclined to underreact to the buildup of inflation. First, the framework stated that the committee would respond only to "shortfalls" of employment from maximum employment, rather than to "deviations" in either direction. Second, the framework indicated that following periods in which inflation had persistently undershot its 2 percent target, the committee would allow inflation to overshoot "moderately…for some time." Arguably, both of these changes could have tilted the committee toward a less vigorous policy response.

While acknowledging the plausibility of the argument that the framework made the situation worse, Blinder ultimately downplays its likely significance. As he puts it, "The case that dovish asymmetries in the new framework played a role in the policy error seems obvious, and there is no doubt some truth to it. But I think the blame has been exaggerated" (p. 10). Instead, he argues that the bulk of the inflation surge reflected supply shocks and supply constraints, and that monetary policy itself likely played a secondary role. In support of this view, he points to Reifschneider's counterfactual simulations.

Even if the framework was not the principal source of the policy delay, Blinder nonetheless argues that some adjustments to the 2020 framework may have been warranted. He recommends that the committee drop its inclination to allow inflation to run moderately above target following sustained undershoots.

5 These specifications include the inflation dynamics native to FRB/US, as well as those used in three other recent empirical studies of US inflation dynamics: Bernanke and Blanchard (2023), Cecchetti et al. (2023), and Gagnon and Collins (2019).

He also suggests replacing the current point target of 2 percent with a target range between 1.5 and 2.5 percent. In his view, such a range would have three advantages: it would eliminate the appearance of false precision in inflation control; it would reduce the need for forward guidance, as market participants would understand that the committee would lean against inflation approaching either end of the range; and it would reinforce symmetry in the conduct of monetary policy. In its subsequent framework review, the FOMC modified its framework in line with Blinder's first recommendation, replacing the tendency to allow an inflation overshoot with a more neutral statement that it would be "prepared to act forcefully to ensure that longer-term inflation expectations remain well anchored."[6] However, the committee retained a point inflation target rather than adopting a range.

As Patrick Honohan notes in *The Inflation Surge in Europe*, the European Central Bank (ECB) began tightening policy later than the Federal Reserve, broadly in line with the fact that the rise in inflation in Europe lagged that in the United States by roughly half a year. As in the United States, this timing naturally raised questions about whether policymakers had been slow to appreciate how persistent inflationary pressures would prove to be.

By the time Honohan was writing in early 2024, however, attention had shifted to a different question: whether the ECB had subsequently tightened policy too aggressively. As he put it, "Did [the ECB] persist in this tightening for too long, bringing interest rates to too high a level? Would inflation have slowed sufficiently, and with less damage to the level of economic activity if the ECB's action had been less aggressive?" (p. 11). Indeed, the ECB then started to lower rates sooner than the Fed, and by late 2024 inflation was back down to its target, where it has been since and is expected to remain through 2027.

At the same time, despite geopolitical shocks, the average euro area unemployment rate was below 6½ percent, more than a percentage point below its pre-pandemic level. As in the United States, the euro area appears to have achieved disinflation with remarkably little increase in unemployment, an outcome that seemed far from assured when inflation was near its peak.

Inflation Expectations

The COVID era inflation surge also raised concerns about whether inflation expectations might become less firmly anchored. Expectations are influenced by many factors, including public beliefs about whether policymakers have both the tools and the resolve to bring inflation back to target. If confidence in that capacity were to erode (regardless of whether those beliefs accurately reflect policymakers' true capabilities or intentions), expectations could become a source of inflation persistence in their own right.

In *The Influence of Gasoline and Food Prices on Consumer Expectations and Attitudes in the COVID Era* (2024), Joanne Hsu presents evidence suggesting that inflation expectations, as measured by the Surveys of Consumers at the University of Michigan, did not become less firmly anchored. Historically, inflation

6 Board of Governors of the Federal Reserve System, 2025 Statement on Longer-Run Goals and Monetary Policy Strategy, adopted effective January 24, 2012; as amended effective August 22, 2025.

expectations have tended to move with realized inflation. Hsu shows, however, that the sensitivity of inflation expectations to actual inflation outcomes was lower in recent years than it had been over the period since 1978 during which the University of Michigan has collected such data. By this metric, inflation expectations appear to have remained relatively well anchored despite the unusually large and persistent inflation shock.

At the same time, Hsu documents a striking contrast in how consumers responded along other dimensions. While inflation expectations themselves became less responsive to realized inflation, the survey's headline consumer sentiment index became more responsive. Between 2020 and 2023, a 1-percentage-point increase in core inflation was associated with a roughly 2.5-point decline in consumer sentiment—more than three times the average sensitivity observed over the full 1978–2023 sample.

A different perspective on inflation expectations is provided by Joseph Gagnon and Asher Rose in *Why did Inflation Rise and Fall So Rapidly? Lessons from the Korean War* (2025), who compare the COVID era inflation episode to earlier surges, particularly those during the Korean War era and the 1970s. They note that inflation subsided quickly after the Korean War without a rise in unemployment—an outcome they attribute to strong fiscal discipline and confidence in the Federal Reserve's commitment to price stability. By contrast, the inflation surges of the 1970s were prolonged and receded only after painful increases in unemployment, in part because the Fed lacked a clear anti-inflation mandate and allowed expectations to drift upward in response to repeated policy missteps.

The Korean War and 1970s episodes illustrate how the credibility of the monetary regime can determine whether inflation shocks dissipate or become entrenched. Gagnon and Rose argue that the Federal Reserve's strong credibility in recent decades helped prevent expectations from becoming unmoored during the COVID era surge, contributing to the broader set of factors that enabled inflation to decline without a sharp rise in unemployment.

While central bank credibility has been documented to play an important role in anchoring inflation expectations, less is known about the other forces that shape them. In *The Role of Long Histories of "Lived Experience" in the COVID-Era Inflationary Surge*, Joseph Gagnon and Steven Kamin present a cross-country analysis that suggests that expectations are influenced not only by recent inflation or institutional frameworks, but also by deeper, longer-term historical experience. They show that countries with higher inflation during the 2000–2015 period experienced significantly larger inflation surges during the COVID era—even after controlling for more recent inflation, output gaps, and policy characteristics such as inflation targets and central bank independence. These results are robust across country samples and alternative specifications, and complementary evidence from long-term bond yields and surveys of professional forecasters points to a similar role for long inflation histories in shaping expectations.

Gagnon and Kamin argue that in times of volatility and uncertainty, households and firms rely more heavily on their "lived experience" with inflation to form expectations—especially when that experience includes high inflation. While the United States entered the COVID era with strong inflation credibility, the findings raise a cautionary note: repeated or prolonged inflation shocks could erode the hard-won anchor.

4. TOOLS OF ECONOMIC ANALYSIS

The pandemic-era inflation surge also exposed the limits—and strengths—of the tools policymakers rely on to monitor the economy and assess risks in real time. Papers in this series address a few of these issues, including how well official price statistics performed under extraordinary conditions, whether alternative indicators offer better signals of underlying pressures, and how existing models capture key nonlinearities in inflation dynamics. Taken together, this work highlights both the resilience of core statistical infrastructure and the need for continued methodological and data innovation.

A central contribution in this area is provided by *Modernizing Price Measurement and Evaluating Recent Critiques of the Consumer Price Index*, in which Daniel Sichel and Christopher Mackie examine a number of allegations that were leveled at the two principal US price indexes—the CPI and the PCE price index—during the COVID era inflation surge. Drawing on a recent National Academies report (National Academies of Sciences, Engineering, and Medicine 2022), Sichel and Mackie carefully evaluate these critiques and conclude that the basic methodology underlying these measures is sound. They argue that while some critiques raised legitimate issues, others were clearly misplaced.

One critique with some substance concerns the expenditure weights used to aggregate detailed prices into the overall index. When the pandemic hit, the CPI relied on weights that reflected purchasing patterns from roughly 36 months earlier, on average. Because spending patterns shifted extraordinarily rapidly during the pandemic, these pre-pandemic weights became unrepresentative in some cases. The Bureau of Labor Statistics (BLS) has since adjusted its methodology to reduce this lag, but as Sichel and Mackie note, the CPI still relies on weights based on spending patterns from about 24 months earlier, on average. Addressing this issue more decisively would require a more fundamental overhaul of the index's underlying methodology—an effort that would demand additional resources and sustained investment in the statistical agencies. As they emphasize, progress on this front will be difficult if Congress and the president continue to constrict agency budgets.

By contrast, Sichel and Mackie argue that some other prominent critiques have little or no merit. In particular, some analysts pointed to the divergence during the inflation surge between the CPI's housing components and private-sector indexes based on newly signed leases. Sichel and Mackie explain that this divergence largely reflects differences in measurement objectives rather than flaws in the official data. The CPI is designed to capture the rent experience of all households, not just those entering into new leases at a given moment. Given that objective—which they view as appropriate—the CPI's housing components are sensibly designed and competently executed.

Sichel and Mackie conclude that while there is room for improvement, the CPI is conceptually sound and performed well during the recent inflation surge—no small accomplishment. Even when much of the country was locked down, the BLS continued to publish the CPI on time and with a high degree of accuracy. More broadly, they argue that the core economic statistical agencies—the BLS, the Bureau of Economic Analysis, and the Census Bureau—served the nation well during an extraordinarily challenging period.

Another paper in the series focuses on indicators and models used to assess labor market tightness and wage pressures—key inputs into inflation analysis. In

Labor Market Tightness and Inflation Before and After the COVID-19 Pandemic, Justin Bloesch evaluates the wage Phillips curve (the relationship between labor market tightness and nominal wage growth) and argues that the quits rate provides a more reliable measure of labor market tightness than traditional indicators such as the unemployment gap or the vacancies-to-unemployment ratio. Using both time-series regressions and structural modeling, he shows that the quits rate consistently outperforms alternative measures in explaining movements in nominal wage growth, including during the post-pandemic period when standard indicators sent mixed signals. The strong empirical relationship between the quits rate and wage growth as measured by the Employment Cost Index held up even as other labor market metrics became less informative.

As part of this analysis, Bloesch also emphasizes the importance of nonlinearities in key labor market relationships, including the wage Phillips curve and the Beveridge curve (the relationship between job openings and unemployment). In his framework, the post-pandemic recovery pushed the economy onto steep portions of these curves, implying larger increases in wage pressures when labor markets were tight. As demand eased, however, wage growth moderated with only modest increases in unemployment. This nonlinear perspective helps rationalize the combination of elevated inflation followed by a relatively soft landing and is consistent with broader arguments in the series—most notably by Dynan and Elmendorf—that inelastic supply and nonlinear responses can generate large price movements even in the absence of large changes in measured slack.

Finally, in *US Wage Patterns During and After the Pandemic*, Jeff Nezaj, Nela Richardson, and Liv Wang highlight the potential value of new, private-sector data sources for improving real-time economic analysis. Using high-frequency, worker-level payroll data from ADP, they examine wage and employment dynamics during and after the pandemic. Their analysis shows that much of the volatility in average wages reflected compositional shifts in the workforce—such as changes in industry mix, age distribution, and job-switching behavior—rather than underlying wage pressure. These findings underscore the importance of tools and models that explicitly account for composition effects when interpreting wage data, particularly during periods of rapid labor market churn.

More broadly, the paper illustrates how private-sector administrative data can be especially valuable during periods of rapid economic change. Such data can often be available with much shorter lags and at higher frequency and greater granularity than traditional official time series. At the same time, as the authors themselves emphasize, proprietary datasets such as ADP—while covering more than 26 million workers, or roughly one-fifth of the US private-sector workforce—reflect the experiences of a particular client base rather than a representative cross-section of the economy; for this reason, private data are best viewed as a complement to official statistics rather than a substitute (see also Kolko 2025).

5. LESSONS

Taken together, the papers in this project provide a detailed account of the causes, dynamics, and consequences of the COVID era inflation surge. While many uncertainties remain, the evidence assembled here supports a set of lessons that are relevant for future policy design and conduct. These lessons are

necessarily conditional, given the idiosyncratic nature of the episode, but they nonetheless point to several principles that are likely to have broader application than just this one historical episode.

- **Inflation is deeply unpopular, and its social and political costs can be large even when labor market damage is limited**. Consumer sentiment deteriorated sharply as inflation rose, and some measures have remained weaker than would be suggested by traditional economic fundamentals even as inflation has receded. The experience of this episode reiterates a phenomenon that Stanley Fischer and John Huizinga noted more than 40 years ago—that everyday consumers dislike inflation with an intensity that economists find, if anything, difficult to understand (Fischer and Huizinga 1982). This pattern suggests that policymakers should weigh the costs of inflation carefully when evaluating trade-offs during periods of strong demand, within existing policy frameworks, recognizing that inflation can generate outsized welfare and political consequences.
- **The inflation surge was global in scope, but its specific underlying drivers differed in important ways across countries, with implications for policy**. To be sure, the pandemic was a common shock, and many economies were later affected by similar commodity price shocks. At the same time, countries differed markedly in their fiscal responses to the pandemic, exposure to global energy markets, labor market institutions, and economic structures. This diversity cautions against relying on a single explanatory narrative. It is likely that countries were affected to differing degrees by demand- and supply-side forces—a distinction that is particularly important because the appropriate policy response depends critically on which forces are dominant in a given national context.
- **In the United States, the evidence points to a central role for excess demand interacting with inelastic supply**. The scale and timing of US fiscal support, particularly the American Rescue Plan, pushed aggregate demand against short-run supply constraints in an economy already recovering rapidly. Analyses by Dynan and Elmendorf, reinforced by Levy's evidence that supply chains delivered historically large quantities of goods despite visible strain, support the conclusion that excess demand was a key driver of the US inflation surge. This assessment does not imply that the appropriate scale of fiscal support was obvious in real time: Policymakers faced uncertainty about the trajectory of the pandemic, the degree of economic slack, and the speed with which supply constraints would ease. Many were also likely influenced by the experience of the global financial crisis era, when fiscal support was too small and withdrawn too quickly.
- **While the specific circumstances of the COVID era are unlikely to recur, the episode highlights a more general lesson about nonlinearities in aggregate supply**. Even when some slack appears to remain by some measures, pushing demand too far and too fast can trigger disproportionately large inflationary responses once the economy moves onto a steep portion of the aggregate supply curve or labor market Phillips curve. In such regions, relatively small additional increases in demand can translate into large price movements.

Although it is extremely difficult to identify these thresholds in real time, the risk of crossing them is one that both monetary and fiscal policymakers need to take into account.

- **On the fiscal side, the difficulty of identifying real-time capacity constraints strengthens the case for policy frameworks with greater automatic adjustment features**. When demand is evolving rapidly and supply conditions are uncertain, discretionary fiscal interventions calibrated under substantial uncertainty are at high risk of either providing too little support (as happened in the wake of the global financial crisis) or too much (in the case of the COVID episode). Automatic stabilizers and rules-based fiscal mechanisms can help modulate support as conditions change, reducing the likelihood that policy inadvertently misses the mark in terms of adequately addressing demand shortfalls, but not going overboard. Automatic stabilizers would also reduce reliance on discretionary judgments about the appropriate scale of stimulus in periods when estimates of the demand shortfall are subject to high uncertainty as they were in the COVID era. The formula used to calibrate the size of fiscal support could also take into account the pace of inflation relative to the central bank's target.
- **Monetary policy flexibility is critical in environments where inflation risks are outsized, and forecasting errors are likely**. The COVID era experience illustrates how difficult it can be to assess, in real time, the future evolution of inflation, especially when truly extraordinary shocks—far outside the range of experience of forecasting models—are hitting the economy. Counterfactual simulations using the FRB/US model suggest that even substantially earlier and more aggressive tightening would likely have had only modest effects on inflation in 2021 and 2022, though it might have brought inflation back to target somewhat sooner thereafter. An even worse outcome was prevented by the willingness of monetary policymakers to aggressively adjust the stance of their policy once the scale and persistence of inflation became clearer. That adjustment contributed to restoring price stability without precipitating a severe downturn, underscoring the value of policy frameworks that allow for timely recalibration in the face of evolving evidence—and the willingness of policymakers to change their minds in light of changing circumstances.
- **Anchored inflation expectations played a critical role in enabling rapid disinflation in the early 2020s—but they cannot be taken for granted going forward**. Historical analysis by Gagnon and Rose underscores how central bank credibility shaped the very different inflation outcomes following the Korean War and during the 1970s. Their work, together with Gagnon and Kamin's analysis of "lived experience," suggests that expectations are influenced not only by recent inflation experience and institutional frameworks but also by longer-term historical memory. While US inflation expectations remained anchored during the COVID era surge, repeated or prolonged inflation shocks could weaken that anchor in the future, leading to higher future inflation and increasing the economic costs of policies to restore price stability. Against that backdrop, it is disquieting that inflation has not yet returned to its 2 percent target level in the United States—though it has in Europe.

- **The rise in some measures of inflation expectations in 2025 serves as a cautionary signal for the future**. Following announcements of dramatically higher tariff rates, both short- and longer-term inflation expectations as measured by the University of Michigan's Surveys of Consumers rose materially. Although the runup has largely been reversed, it illustrates how expectations can respond quickly to perceived policy shifts. Maintaining credibility and clear communication will therefore remain essential as monetary policymakers confront future shocks.
- **Official inflation statistics performed well during the COVID era, but continued investment in measurement capacity is essential**. The CPI and PCE price indexes captured the broad contours of inflation during the pandemic era, and no credible evidence suggests otherwise. At the same time, the episode highlighted the importance of ongoing modernization of statistical systems. Private-sector data can be valuable as complements—especially for timeliness and granularity—but cannot substitute for the representativeness, continuity, and public accountability of official statistics.

REFERENCES

Bernanke, Ben S., and Olivier Blanchard. 2023. *What Caused the US Pandemic-Era Inflation?* PIIE Working Paper 23-4. Washington: Peterson Institute for International Economics. Available at https://www.piie.com/publications/working-papers/2023/what-caused-us-pandemic-era-inflation.

Cecchetti, Stephen, Michael Feroli, Peter Hooper, Frederic Mishkin, and Kermit Schoenholtz. 2023. *Managing Disinflations*. US. Monetary Policy Forum, University of Chicago Booth School of Business. Available at https://www.chicagobooth.edu/-/media/research/igm/docs/usmpf-2023-conference-version.pdf.

Fischer, Stanley, and John Huizinga. 1982. Inflation, Unemployment, and Public Opinion Polls. *Journal of Money, Credit and Banking* 14, no. 1 (1982): 1–19. Available at https://doi.org/10.2307/1991488.

Gagnon, Joseph E. and Christopher G. Collins. 2019. *Low Inflation Bends the Phillips Curve*. PIIE Working Paper 19-6. Washington: Peterson Institute for International Economics. Available at https://www.piie.com/sites/default/files/documents/wp19-6.pdf.

Kolko, Jed. 2025. *The Private Sector Can't Replace Official Statistics—But Could Be a Great Partner*. PIIE Realtime Economics. Washington: Peterson Institute for International Economics. Available at https://www.piie.com/blogs/realtime-economics/2025/private-sector-cant-replace-official-statistics-could-be-great.

National Academies of Sciences, Engineering, and Medicine. 2022. *Modernizing the Consumer Price Index for the 21st Century*. Washington: The National Academies Press. Available at https://www.nationalacademies.org/publications/26485.

Powell, Jerome H. 2024. *Review and Outlook*. Speech at the Federal Reserve Bank of Kansas City 2024 Jackson Hole Symposium. Available at https://www.federalreserve.gov/newsevents/speech/powell20240823a.htm.

Swagel, Phillip L. 2021. *CBO's Budget and Economic Analysis During the Pandemic*. Presentation at Brown University. October. Washington: Congressional Budget Office. Available at https://www.cbo.gov/publication/57520.

PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

The Peterson Institute for International Economics (PIIE) is an independent nonprofit, nonpartisan research organization dedicated to strengthening prosperity and human welfare in the global economy through expert analysis and practical policy solutions. Its work is funded by a highly diverse group of philanthropic foundations, private corporations, and interested individuals, as well as income on its capital fund. About 12 percent of the Institute's resources in 2024 were provided by contributors from outside the United States.

A list of all financial supporters is posted at
https://piie.com/sites/default/files/supporters.pdf.