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FEDERAL RESERVE FRAMEWORK REVIEW 2024–25

Post-pandemic Inflation and Improving FAIT with Nominal GDP Level Targeting

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During its 2020 framework review, the Federal Reserve adopted a strategy of flexible average inflation targeting (FAIT). FAIT can be improved by dropping its asymmetry—that is, dropping its policy of making up for persistently undershooting but not overshooting the inflation target—so that it is implemented as a form of nominal GDP level targeting (NGDPLT). NGDPLT endeavors to maintain a steady growth path for total dollar spending, avoid sudden swings in economic activity, and preserve the Fed's commitment to long-run price stability.

As the Federal Reserve prepares for its next framework review, it is worth considering the prospects for nominal GDP level targeting (NGDPLT) in light of recent macroeconomic history.[1] In 2019, in the midst of the Fed's previous framework review, I argued that the time was ripe for NGDPLT. NGDP had been on a steady growth path for several years, and I thought that the idea of stabilizing income might appeal more to the public than the idea of stabilizing inflation, which is poorly understood.[2] NGDPLT could thus improve public trust in the Fed and perceptions of the Fed's legitimacy.

The Fed did not adopt NGDPLT at that time; instead, as a result of its review, it adopted flexible average inflation targeting (FAIT) in 2020. In the short history of FAIT, the US economy has experienced the highest inflation in recent decades, as well as an impressive disinflation with a strong labor market. FAIT has received both criticism and praise, perhaps both deserved.[3] This raises the question of whether the time is still ripe for NGDPLT. Have the past few years strengthened or weakened the case for its adoption?

In this policy brief, I argue that recent macroeconomic history strengthens the case for NGDPLT in several ways. For example, the events of 2020 and beyond have showcased the importance of "looking through" supply shocks and the difficulty of disentangling supply and demand shocks in real time. Trends of the past several years may also have increased public frustration with the asymmetry of FAIT—that is, with the fact that the Fed makes up for persistently undershooting the

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inflation target, but not for overshooting. I also explain why the case is not straightforward. Like economists David Beckworth and Patrick Horan,[4] I recommend "salvaging" FAIT by removing its asymmetry so that it can be implemented as a form of NGDPLT. This approach would reassure the public of the Fed's commitment to long-run price stability while also acknowledging FAIT's efficacy in avoiding a deeper recession or financial crisis in 2020 and 2023.

A Stronger Case

Recent US experience highlights some of the benefits of an NGDPLT approach and strengthens the case for adopting it. First, an examination of the path of NGDP during the two most recent recessions underscores the upsides of keeping nominal income growing steadily—and the costs of failing to do so.

As shown in panel A of figure 1, after the Great Recession, NGDP stayed well below its trend path for many years, contributing to a painfully slow recovery. Moreover, the presumption that the Fed would not make up for its repeated undershooting of inflation after 2009 kept inflation expectations low, making it more difficult to stimulate demand. As shown in figure 2, the Cleveland Fed's measure of five-year inflation expectations was well below the Fed's inflation target beginning during the Great Recession and continuing through the start of the pandemic, averaging 1.7 percent from 2008 through 2020. The Fed's 2 percent target for PCE (personal consumer expenditures) inflation corresponds to roughly 2.5 percent CPI (consumer price index) inflation,[5] so expectations were more than half a percentage point below target.

FIGURE 1. NGDP around two recent recessions

A. AROUND GREAT RECESSION

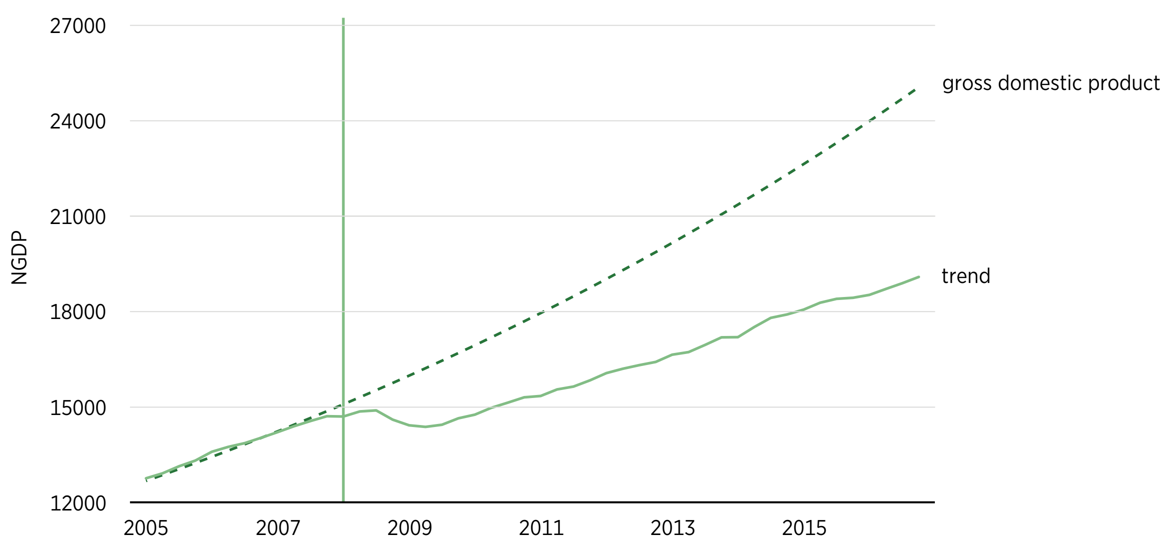
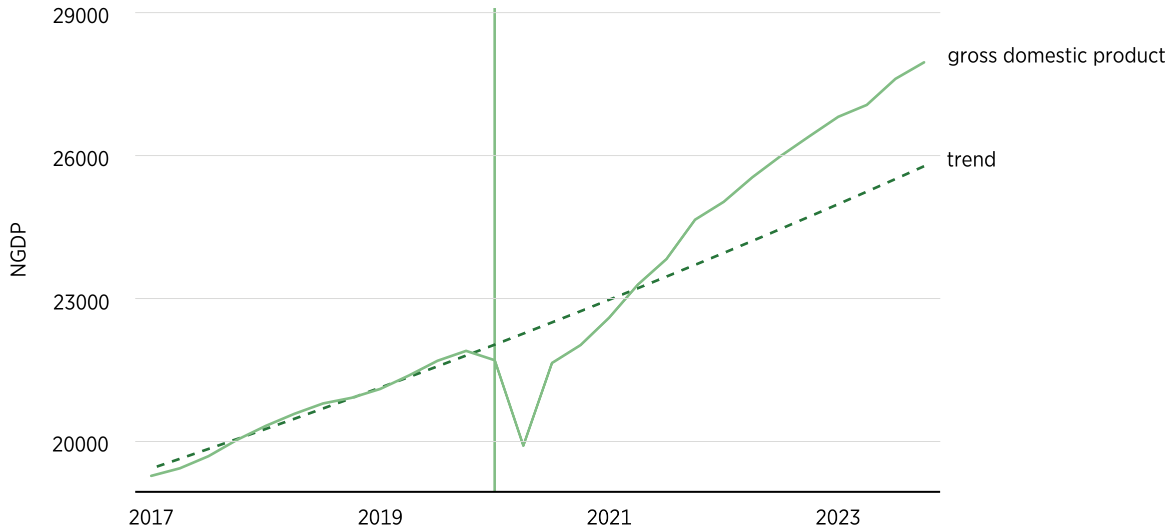


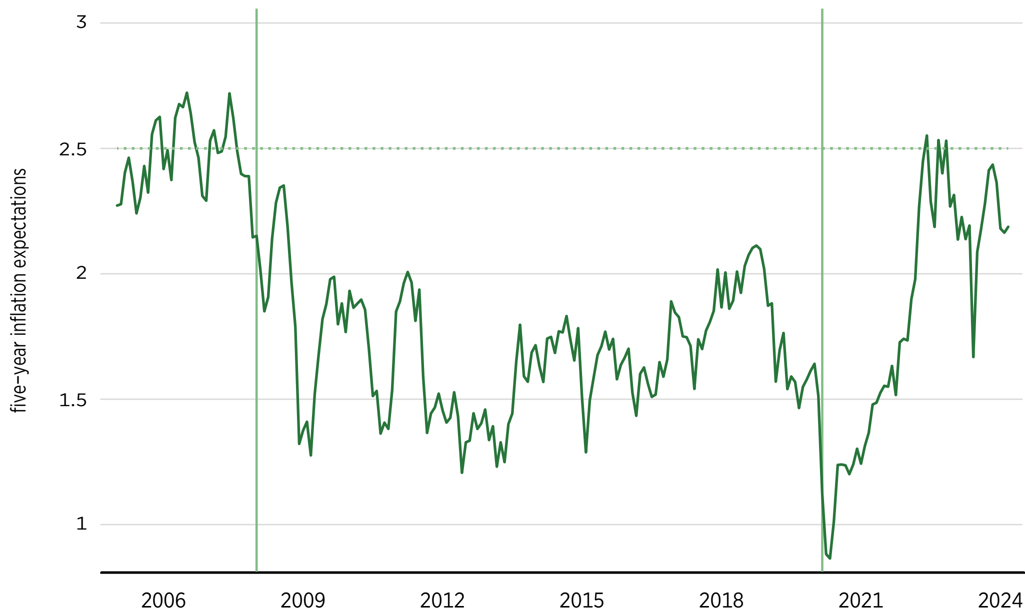
FIGURE 1 (CONTINUED)

B. AROUND COVID–19 RECESSION



Source: Data are from US Bureau of Economic Analysis, "Gross Domestic Product [GDP]" (dataset), retrieved from FRED, Federal Reserve Bank of St. Louis, March 13, 2024, https://fred.stlouisfed.org/series/GDP.
Note: Trend line in panel A was constructed by regressing log GDP from 2002 through 2007 on a linear trend and extrapolating. Trend line in panel B was constructed by regressing log GDP from 2015 through 2019 on a linear trend and extrapolating.

FIGURE 2. Five-year inflation expectations from the Cleveland Fed



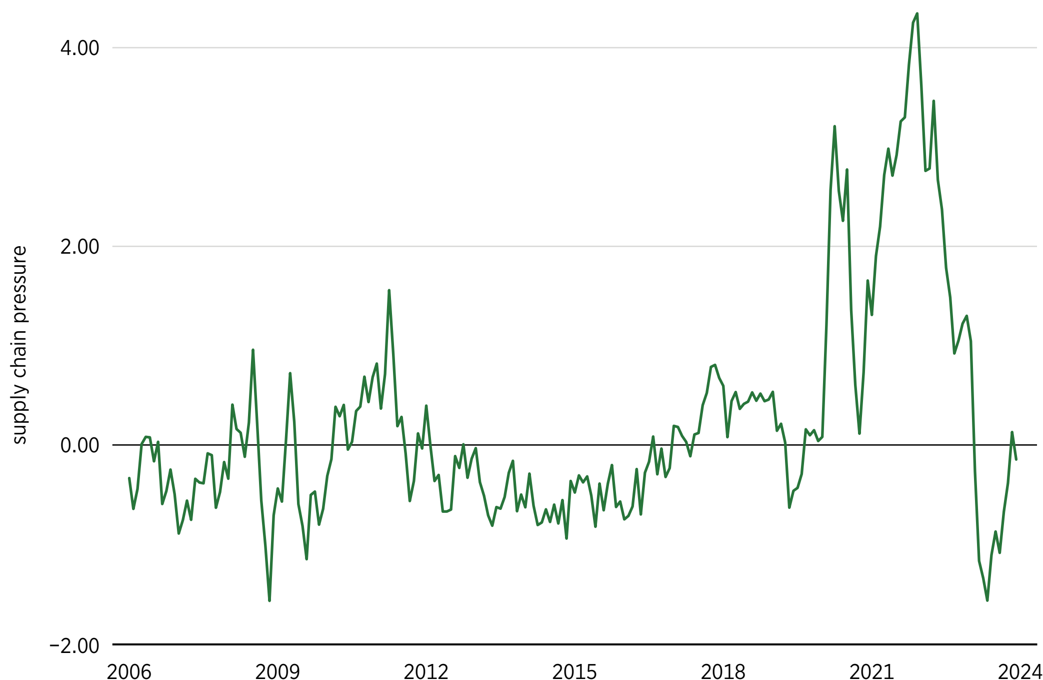
Source: Data are from Federal Reserve Bank of Cleveland, "5-Year Expected Inflation" (dataset), last updated March 12, 2024, https://fred.stlouisfed.org/series/EXPINF5YR.
Note: Vertical lines denote the starts of the Great Recession and the COVID-19 recession. Dashed horizontal line denotes 2.5 percent CPI inflation, which is approximately equivalent to the Fed's target of 2 percent PCE inflation.

In contrast, as shown in panel B of figure 1, substantial demand stimulus quickly returned NGDP to its trend path after the COVID-19 recession, which helped to avoid a deeper recession and prevented financial strains on households and businesses.[6] The flip side is that, beginning in the second quarter of 2021, continued accommodation led to a spike in the price level, even as NGDP rose above its trend path.[7] For many observers, this makes it seem more plausible that a policy of stabilizing the NGDP path could have helped avoid two of the biggest macroeconomic policy mistakes in recent years.

Another of the biggest benefits of NGDPLT is that it allows monetary policymakers to "look through" supply shocks. Recent experience has demonstrated just how important that is, since there were almost unprecedented supply chain pressures as well as geopolitical shocks affecting oil and commodity prices. Figure 3 shows the Federal Reserve Bank of New York's Global Supply Chain Pressure Index, which rose sharply in April 2020 and the second half of 2021. These global supply chain disruptions played a substantial role in US inflation in 2021.[8]

A strict inflation targeting framework would require monetary tightening in the face of adverse supply shocks, which can destabilize the economy.[9] It is better to allow some temporary fluctuations in inflation when there are supply shocks and focus on offsetting demand shocks. Policymakers recognize this, which is why, under flexible inflation targeting, they try to determine

FIGURE 3. Global supply chain pressure Index



Source: Data are from "Global Supply Chain Pressure Index," Federal Reserve Bank of New York, accessed March 21, 2024, https://www.newyorkfed.org/research/policy/gscpi#/interactive.

whether changes in inflation are supply- or demand-driven and respond accordingly.[10] This is why there was so much discussion in 2021 and 2022 about how much run-up in inflation was transitory or supply-driven.[11] But making this distinction can be a very difficult task when multiple shocks are hitting the economy at once. NGDPLT provides policymakers with a guide for responding appropriately in this kind of scenario: Stabilize the path of total dollar spending, which means stabilizing demand.[12]

A third, related benefit of NGDPLT, highlighted by recent history, is its informational advantages. NGDPLT is a robust framework for monetary policy in an uncertain and changing economy, whether that uncertainty originates from shocks hitting the economy or from some of the fundamental parameters used to guide macroeconomic policy, like the so-called "stars." These include r^*, the natural rate of interest; u^*, the natural rate of unemployment; and Π^*, the long-run inflation target. As Powell has explained, "the famous Taylor rule calls for setting the federal funds rate based on where inflation and unemployment stand in relation to the stars. If inflation is higher than Π^*, raise the real federal funds rate relative to r^* . . . if the unemployment rate is above u^*, lower the real federal funds rate relative to r^*, which will stimulate spending and raise employment."[13]

But he adds, "Navigating by the stars can sound straightforward. Guiding policy by the stars in practice, however, has been quite challenging of late because our best assessments of the location of the stars have been changing significantly." Beckworth has shown that NGDPLT eliminates the need to estimate these unobservable variables, or stars, reducing the informational burden of conducting monetary policy.[14] The harder it is to estimate these stars, the bigger this benefit becomes. So, as the skies have gotten cloudier, the advantages of NGDPLT have become more apparent.

The fourth reason why the case for NGDPLT might be stronger now is that there is growing frustration with FAIT—in particular with its ambiguity and asymmetry. By ambiguity, I mean the idea captured in a Reuters headline: "Fed policymakers do their own math on 'average' inflation."[15] The time horizon for measuring "average" is left undefined, which gives policymakers a lot of discretion and contributes to uncertainty about their reaction function. This, in turn, makes policy much more susceptible to politicization.[16]

By asymmetry, I mean that the framework says that the Fed will make up for undershooting its inflation target but not for overshooting it. As Eggertsson and Kohn have pointed out, this feature contributes to an inflationary bias in the framework.[17] Average inflation will not be 2 percent, but rather something higher. That makes it very difficult for households to make a longer-run forecast of the price level.[18]

An Unconvincing Case

I have given several reasons why it might be easier to make a strong case for NGDPLT compared to a few years ago. But there are still other reasons why it might be a harder sell. First, inflation

has only recently returned near to the Fed's target. As of this writing, in September 2024, the most recent PCE report shows that PCE inflation increased 2.2 percent over the year ending in August. If it seems like the Fed is changing its framework to avoid having to get inflation back to target, that could hurt the Fed's overall credibility. Second, this high inflation episode has made inflation much more salient to the public.[19] A few years ago, it might have seemed like high inflation was a thing of the past. So, promising to stabilize nominal income rather than inflation would have been an easier sell, both to the general public and to Congress.[20]

As Selgin has noted, many academic studies that compare the merits of inflation targeting versus NGDP targeting start from a quadratic loss function in inflation and output or unemployment deviations, whereas economists fundamentally care about welfare or utility.[21] And there is no reason to assume that minimizing this loss function is equivalent to maximizing utility. In fact, as I mentioned, one of NGDPLT's benefits is that it allows price fluctuations, or times of temporarily higher or lower inflation, precisely when they are most needed—when supply shocks hit the economy. But the typical loss function does not distinguish between these appropriate variations in inflation and other inappropriate ones driven by inadequate responses to demand. In a typical New Keynesian model like those often used at central banks, NGDPLT performs well in terms of consumer welfare.[22]

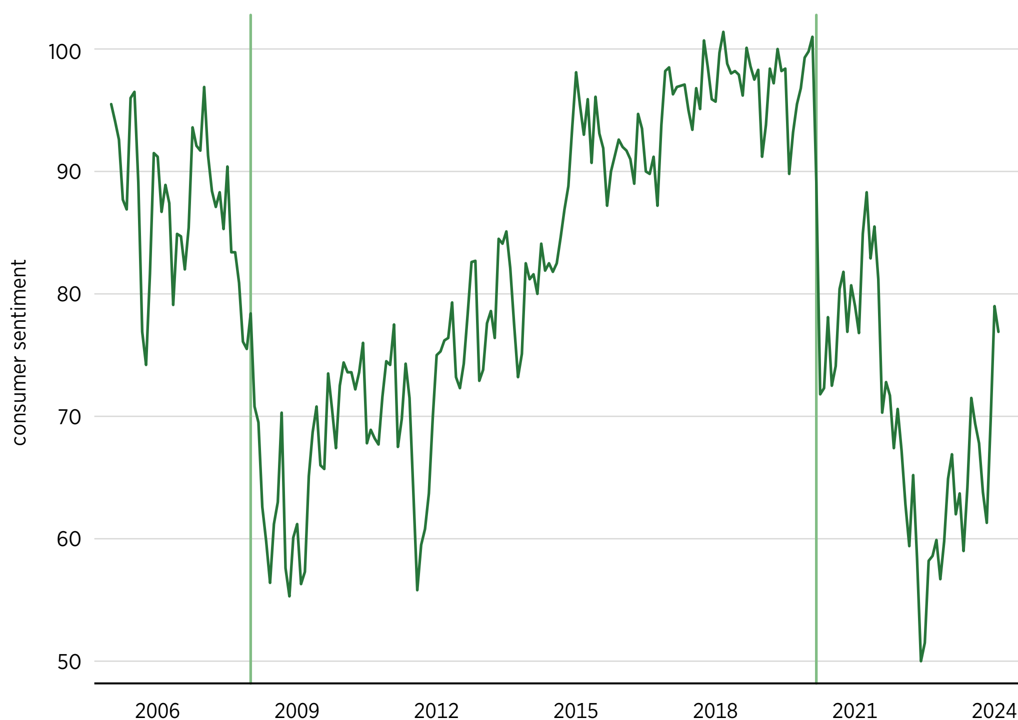
For me, that's a very convincing argument. But the idea that the central bank *should* stabilize prices, and *should* have this dual mandate, is very deeply ingrained. Beginning in the Progressive Era, Irving Fisher and others appealed for a central bank with a price stabilization mandate as the solution to the social ills associated with price fluctuations.[23] Though Fisher did not live to see his price stabilization proposals come to fruition, he did succeed in bringing price stabilization into the public psyche as a right and feasible aim of monetary policy, laying the groundwork for inflation targeting. The Full Employment and Balanced Growth Act of 1978 commits the federal government to pursuing price stability as one of its major macroeconomic goals, and Congress has in turn delegated responsibility for price stability, along with maximum employment, to the Fed as part of its dual mandate.

Framing the Case

In the years of low inflation following the Great Recession, the Fed's approach to its dual mandate was subject to intense scrutiny.[24] Some thought that, with inflation a thing of the past, the Fed was putting too much weight on the inflation part of the loss function and not enough on the employment part.[25] Some participants in the Fed's 2020 framework review—which resulted in the adoption of the asymmetric FAIT framework—shared this sentiment.

But the return of inflation since 2021 has shown that it remains highly unpopular with the public. Even as inflation has declined and the unemployment rate has remained low, consumer sentiment has been poor (see figure 4). In June 2022, when year-over-year CPI inflation peaked at

FIGURE 4. Consumer sentiment around recent recessions



Source: Data are from University of Michigan, "University of Michigan: Consumer Sentiment [UMCSENT]" (dataset), retrieved from FRED, Federal Reserve Bank of St. Louis, updated March 13, 2024, https://fred.stlouisfed.org/series/UMCSENT.
Note: Vertical lines denote starts of Great Recession and COVID-19 recession.

9.0 percent—the highest since the Great Inflation of 1965 to 1982—the University of Michigan Consumer Sentiment Index reached a record low. By the end of 2023, though year-over-year CPI inflation had fallen to 3.1 percent and unemployment was just 3.7 percent, consumer sentiment was as low as it was in mid-2009, when the unemployment rate was 9.5 percent.

After this reminder that high inflation is still a possibility, the public will rightly be wary of any indication that the Fed is loosening up on its price stabilization mandate. And Congress will likewise be wary, given the apparent public distaste for inflation even when unemployment is low. It is important, then, to emphasize that NGDPLT does *not* imply neglect of price stability. Instead, NGDPLT promotes long-run price stability the *right* way, by stabilizing demand-driven price fluctuations. In the long-run, in fact, NGDPLT implies better longer-run price stability than an asymmetric average inflation target (AIT), because the make-up strategy is symmetric.

The Fed's most straightforward option is to remove the asymmetry of the AIT framework—that is, to promise to make up for overshooting as well as undershooting inflation. Beckworth and Horan have shown that if AIT were symmetric in this sense, it could effectively be implemented as a form of NGDPLT, in which monetary policy responds systematically to deviations of NGDP

from its target path.[26] This option would avoid the appearance of opportunism, since the Fed would actually be committing to lower average inflation over the long run relative to its current framework. This would be a simple-to-explain yet meaningful change, assuring the public that the Fed had taken the lessons of the past few years seriously. The Fed would continue to pursue both parts of its dual mandate and would incorporate other benefits of NGDP targeting, such as financial stability.[27]

Conclusion

In 2003, Alan Greenspan remarked, "Uncertainty is not just an important feature of the monetary policy landscape; it is the defining characteristic of that landscape."[28] The years since the COVID-19 pandemic have proven the truth of this claim. In uncertain times, especially when a mix of supply and demand shocks hits the economy, it is important to have a robust monetary policy framework without excessive informational burdens on policymakers.[29] The past four years have made the informational advantages of NGDPLT more apparent.

Despite the high inflation episode, there is much to praise about the Fed's current framework. The US economy weathered the pandemic without a long-lasting recession or financial crisis and began the disinflation process without a recession in 2023. Adoption of NGDPLT need not require abandoning FAIT; instead, the Fed could remove the asymmetry with respect to inflation undershooting and overshooting and implement FAIT by responding to deviations of NGDP from its target path.

About the Author

Carola Binder is an associate professor of civic leadership and economics at the University of Texas at Austin and a senior affiliated scholar at the Mercatus Center at George Mason University. Her research focuses on monetary policy, inflation, and central bank communication. She has published widely in academic journals and is the author of *Shock Values: Prices and Inflation in American Democracy*. Binder received her PhD from UC–Berkeley.

Notes

1. David Beckworth, in his flagship policy brief for this series, notes that this framework review, a quinquennial event, is a highly consequential yet overlooked policy event. See David Beckworth, "The Fed's 2024–25 Framework Review: Optimizing the Dual Mandate Through Nominal GDP Level Targeting" (Mercatus Policy Brief, Mercatus Center at George Mason University, 2024).
2. Carola Binder, "NGDP Targeting and the Public," *Cato Journal* 40, no. 2 (2020): 321–42.
3. Gauti B. Eggertsson and Don Kohn, "The Inflation Surge of the 2020s: The Role of Monetary Policy" (Hutchins Center Working Paper No. 87, Hutchins Center on Fiscal and Monetary Policy at Brookings, August 2023).
4. David Beckworth and Patrick Horan, "The Fate of FAIT: Salvaging the Fed's Framework" (Mercatus Working Paper, Mercatus Center at George Mason University, October 2022).

5. Carola Binder, Wesley Janson, and Randal Verbrugge, "The CPI–PCEPI Inflation Differential: Causes and Prospects," Federal Reserve Bank of Cleveland *Economic Commentary* 2020, no. 6 (2020): 1–8.

6. François de Soyres, Ana Maria Santacreu, and Henry Young, "Fiscal Policy and Excess Inflation during COVID–19: A Cross-Country Review," Board of Governors of the Federal Reserve System, last modified July 15, 2022, https://www.federalreserve.gov/econres/notes/feds-notes/fiscal-policy-and-excess-inflation-during-covid-19-a-cross-country-view-20220715.html.

7. For an analysis of how the Coronavirus Aid, Relief, and Economic Security Act of 2020 and the American Rescue Plan of 2021 contributed to inflation, see Òscar Jordà, Celeste Liu, Fernanda Nechio, and Fabián Rivera-Reyes, "Why Is US Inflation Higher Than in Other Countries?" Federal Reserve Bank of San Francisco *Economic Letter* 2022, no. 7 (2022).

8. Ana Maria Santacreu and Jesse LaBelle, "Global Supply Chain Disruptions and Inflation during the COVID-19 Pandemic," Federal Reserve Bank of St. Louis *Review* 104, no. 2 (2022): 78–91.

9. Scott Sumner, "Nominal GDP Targeting: A Simple Rule to Improve Fed Performance," *Cato Journal* 34, no. 2 (2014): 315–37; and Jeffrey Frankel, "Should the Fed Be Constrained?" *Cato Journal* 39, no. 2 (2019): 461–70.

10. Richard H. Clarida, "Flexible Average Inflation Targeting and Prospects for US Monetary Policy" (speech via webcast at the Symposium on Monetary Policy Frameworks, The Brookings Institution, November 2021).

11. See for example Rachel Siegel, "The Fed's Inflation Challenge: Getting the Policy and the Messaging Right," *Washington Post*, December 12, 2021.

12. David Beckworth, "Facts, Fears, and Functionality of NGDP Level Targeting: A Guide to a Popular Framework for Monetary Policy" (Mercatus Special Study, Mercatus Center at George Mason University, October 2019), 11–12.

13. Jerome H. Powell, "Monetary Policy in a Changing Economy" (speech, "Changing Market Structure and Implications for Monetary Policy," a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, WY, 2018).

14. Beckworth, "Facts, Fears, and Functionality of NGDP Level Targeting," 21.

15. Jonnelle Marte and Howard Schneider, "Fed Policymakers Do Their Own Math on 'Average' Inflation," *Reuters*, August 28, 2020.

16. Carola Binder, *Shock Values: Prices and Inflation in American Democracy* (University of Chicago Press, 2024), 258–60.

17. Gauti B. Eggertsson and Don Kohn, "The Inflation Surge of the 2020s: The Role of Monetary Policy," (Hutchins Center Working Paper No. 87, Hutchins Center on Fiscal and Monetary Policy at Brookings, August 2023).

18. Carola Binder, "Average Inflation Targeting by the Federal Reserve and US Consumer Expectations," Washington Center for Equitable Growth (blog), July 31, 2021.

19. Anat Bracha and Jenny Tang, "Inflation Levels and (In)Attention" (Federal Reserve Bank of Boston Working Paper No. 22-4, Federal Reserve Bank of Boston, January 2022).

20. Carola Binder, "NGDP Targeting and the Public," *Cato Journal* 40, no. 2 (2020): 321–42.

21. George Selgin, "Some 'Serious' Theoretical Writings That Favor NGDP Targeting," *Cato at Liberty* (blog), June 19, 2018.

22. Julio Garín, Robert Lester, and Eric Sims, "On the Desirability of Nominal GDP Targeting," *Journal of Economic Dynamics and Control* 69 (2016): 21–44.

23. Binder, *Shock Values*, 85–90, 115–19.

24. Binder, *Shock Values,* 245–50.

25. Carola Binder, "Technopopulism and Central Banks," in *Populism and the Future of the Fed*, ed. James A. Dorn (Cato Institute, 2022), 51–61.

26. David Beckworth and Patrick Horan, "The Fate of FAIT: Salvaging the Fed's Framework" (Mercatus Working Paper, Mercatus Center at George Mason University, October 2022).

27. James Bullard and Riccardo DiCecio, “Optimal Monetary Policy for the Masses” (FRB St. Louis Working Paper No. 2019-9, Federal Reserve Bank of St. Louis, July 2023).

28. Alan Greenspan “Monetary Policy under Uncertainty,” (speech, symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, WY, 2003).

29. See Beckworth, “The Fed’s 2024–25 Framework Review.”