

Finishing the Inflation Job *and* New Challenges for Monetary Policy

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Targeting Nominal GDP: A Monetarist Cross-Check for “Finishing the Job”

Peter N. Ireland

Intellectual diversity at the Federal Reserve, promoted by its decentralized structure, with twelve Reserve Banks scattered across the country and the Board of Governors in Washington, DC, was once one of its greatest strengths.¹ Today, by contrast, a troubling lack of diversity at the Fed appears as a significant liability.² One manifestation of this lack of diversity is a narrowness in the range of analytic approaches used by Federal Open Market Committee (FOMC) members to evaluate their monetary policy options and communicate the rationale for their decisions to the public.

Within the Fed, the dominant framework for monetary policy analysis and evaluation is, always has been, and probably always will be, the Keynesian one. According to the Keynesian view, the Fed conducts monetary policy by managing interest rates. Due to nominal price and wage rigidities, policy-induced movements in nominal interest rates translate into movements in real interest rates as well. Changes in real rates then induce consumers and businesses to rearrange their intertemporal spending plans. Shifting spending patterns affect today's measures of aggregate resource utilization, including the unemployment rate and the output gap. Finally, changes in resource utilization drive movements in inflation. In that last step, the Phillips curve, describing an inverse relationship between unemployment and inflation, becomes the key mechanism

through which monetary policy actions, which start by affecting interest rates, ultimately impact the economy as a whole.

Two problems with this Keynesian approach have emerged over the past fifteen years. The first problem stems from recurrent instability in the Phillips curve. From 2009 through 2019, as the US economy gradually recovered from the 2008 financial crisis, the unemployment rate declined to historically low levels. According to the Phillips curve, inflation should have accelerated, returning to the FOMC's 2% long-run target. But it never quite got there. More recently, the FOMC has been trying to bring inflation back down, following its surge in 2021–22.³ According to the Phillips curve, this disinflation should have required a substantial increase in unemployment. So far, at least, it has not.

The second problem reflects the lack of intellectual diversity referred to earlier. With no other analytical framework to rely on except the Keynesian one, FOMC members have been left adrift by the Phillips curve's instability. They appear to be making policy decisions based mainly on guesswork. It's become increasingly difficult for them to explain to the public what they are doing and why. And it has become almost impossible to describe their contingency plan for how interest rates will need to adjust if something goes wrong, either if inflation remains stubbornly high or if unemployment begins to rise sharply later in 2025. The risks from excessive "data dependency" and discretion are highlighted by the FOMC's outsize, 50-basis-point reduction in the federal funds rate in September 2024, prompted by worries of cumulating weakness in the labor market that subsequently failed to materialize.⁴

Fortunately, there is an alternative framework for monetary policy analysis and evaluation that at least some FOMC members who value diversity might adopt and use "right off the shelf." This alternative view is based on the idea that the Fed should control inflation by targeting nominal GDP instead of relying on a potentially unstable Phillips curve. Its intellectual origins are monetarist instead of Keynesian.

Some, though by no means all, of the arguments favoring nominal GDP targeting are as follows.⁵ First, nominal GDP is a nominal variable, measured in dollars or, more generally, “units of the local currency.” Nominal GDP is, therefore, under the Fed’s clear influence. Although the FOMC cannot control nominal GDP precisely on a quarterly or even an annual basis, through the appropriate choice of policy actions, it can bring about any desired growth rate of nominal GDP, on average, over a period of several years.

At the same time, nominal GDP growth can be decomposed into an equally weighted sum of aggregate price inflation and real GDP growth. Thus, by targeting nominal GDP, the Fed would automatically pursue modest stabilization objectives, as required by its statutory dual mandate, even as it controls long-run inflation. In this way, nominal GDP targeting is less ambitious but more robust than the Keynesian approach to policymaking, which depends on a stable Phillips curve. Nominal GDP targeting accepts that there will always be uncertainty as to how movements in aggregate spending will break down into real and nominal components in the short run. It therefore eschews some fine-tuning in favor of avoiding major policy mistakes.

The simple fact that data on nominal GDP appear quarterly rather than monthly may also be a plus. Focusing on nominal GDP would help the FOMC avoid overreacting to high-frequency noise in the monthly unemployment and inflation numbers, as happened in September 2024. It would keep the committee’s attention where it should be: on intermediate-term trends.

Yet another advantage of nominal GDP targeting is that transitory supply shocks of exactly the kind that have plagued the US economy recently work to move price inflation and output growth in opposite directions, with muted effects on their sum.⁶ By aiming to stabilize nominal GDP, the FOMC can maintain the “balanced approach” called for by its 2012 strategy statement and help it avoid both the excessive monetary accommodation, which would generate more persistent and unwanted inflation,

and the excessive monetary restriction that would weaken the real economy further.⁷

Finally, the equation of exchange $MV = PY$ links nominal GDP, as the product of the aggregate price level P and real GDP Y on the right-hand side, to the money stock M on the left, while also accounting for shifts in monetary velocity V . As the counterpart to Phillips curve instability in the Keynesian model, instability in velocity is the “Achilles’ heel” of monetarism.⁸ But by targeting nominal GDP, “a velocity-shift-adjusted monetary aggregate,” the central bank reacts adaptively, calibrating its policy decisions to offset shifts in V with appropriate changes in M .⁹

A related benefit of nominal GDP targeting is that by refocusing some attention on money growth, it places less emphasis on interest rates and thereby downplays the significance of the zero lower bound (ZLB). Whether by traditional federal funds rate management or through large-scale asset purchases that expand the supply of bank reserves, monetary policy actions that stimulate broad money growth will generate faster growth in nominal GDP, both at and away from the ZLB.¹⁰

Ideally, the FOMC would implement a nominal GDP targeting strategy by following a specific, preannounced monetary policy rule, according to which it would adjust the federal funds rate in response to forecasted deviations of nominal spending growth from the target.¹¹ Even in the absence of a consensus for a rule-based approach, however, any individual governor or Reserve Bank president could restore some much-needed intellectual diversity to the FOMC’s policy deliberations simply by consistently referring to nominal GDP growth as an indicator of the stance of monetary policy in public statements.

To illustrate how, the top panel of figure 10.1 plots year-over-year growth in nominal GDP from the first quarter of 2009 through the first quarter of 2025.¹² The graph nicely summarizes the evolution of both Federal Reserve policy and US economic performance

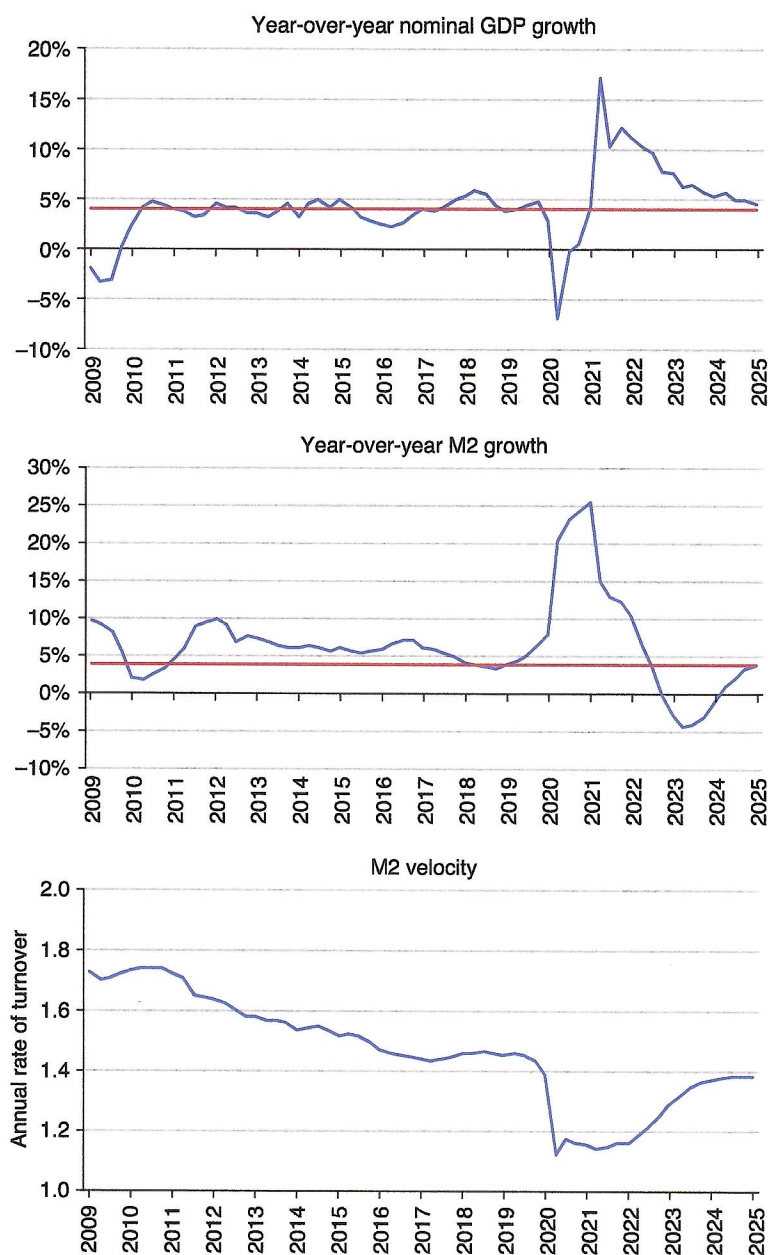


FIGURE 10.1. Quarterly US data, 2009Q1–2025Q1.

Note: The red lines in the top two graphs mark 4% growth in nominal GDP and M2, consistent with 2% inflation under stable 2% real GDP growth and constant monetary velocity.

Source: Federal Reserve Bank of St. Louis, FRED database.

over the past fifteen years. It clearly shows that the extended period of slow but stable nominal GDP growth from 2011 through 2019 was in line with a 4% target, largely consistent with 2% inflation and 2% real growth. Then came the sharp decline in nominal spending during the 2020 economic closures and the even more dramatic acceleration in nominal GDP growth, reflecting the unwanted surge in inflation since 2021. Ultimately, it led to a major policy mistake that highlights the danger of monetary overaccommodation in response to supply-side shocks.

Most recently, nominal GDP growth has trended steadily downward. But will this trend continue? To help answer this question, the center panel of figure 10.1 plots year-over-year growth in the broad monetary aggregate M2. Despite movements in velocity (falling before and during 2020 and rising since then, as shown in the bottom panel of figure 10.1), fluctuations in money growth since 2009 have paralleled and anticipated subsequent movements in nominal GDP growth.¹³ Money growth remained slow but stable through 2019 before surging in 2020, providing a clear warning sign of the inflation that followed. Outright monetary contraction confirms that the interest rate increases by the FOMC in 2022 and 2023 worked as intended, removing excessive monetary accommodation and thereby reducing inflation pressures. Most recently, M2 growth has returned to a 4% annual rate while velocity has returned to its 2019 level, signaling a normalization of both money supply and money demand.

With reference to these graphs, therefore, any FOMC member could reassure the public that the current monetary policy stance remains consistent with a gradual return of inflation to the 2% target, accompanied by stable real economic growth. And with ongoing reference to these graphs, any FOMC member could just as easily explain that the committee's future interest rate decisions will depend on the behavior of nominal GDP growth. A continuation of the downward trend in nominal GDP growth would allow the

FOMC to implement additional gradual and modest interest rate cuts later in 2025. A reversal in this trend, conversely, would signal the need to keep interest rates elevated for longer, especially if accompanied by further acceleration in M2 growth.

Comments like these would add welcome elements of clarity and common sense to the Fed's communications with the public. More generally, monetary policy analysis built around the concept of nominal GDP targeting would provide a useful "cross-check" against the far more popular Keynesian approach based on the Phillips curve. In this way, diversity could once again become one of the Fed's greatest strengths.

References

- Beckworth, David. 2019. "Facts, Fears, and Functionality of NGDP Level Targeting: A Guide to a Popular Policy Framework for Monetary Policy." Mercatus Special Study. Mercatus Center at George Mason University, September.
- Beckworth, David, and Joshua R. Hendrickson. 2020. "Nominal GDP Targeting and the Taylor Rule on an Even Playing Field." *Journal of Money, Credit and Banking* 52 (2): 269–86.
- Beckworth, David, and Patrick J. Horan. 2024. "A Two-for-One Deal: Targeting Nominal GDP to Create a Supply-Shock Robust Inflation Target." *Journal of Policy Modeling* 46 (11–12): 1071–89.
- Belongia, Michael T., and Peter N. Ireland. 2017. "Circumventing the Zero Lower Bound with Monetary Policy Rules Based on Money." *Journal of Macroeconomics* 54 (12): 42–58.
- Belongia, Michael T., and Peter N. Ireland. 2024. "The Transmission of Monetary Policy Shocks Through the Markets for Reserves and Money." *Journal of Macroeconomics* 80 (6): 103590.
- Bernanke, Ben S., and Alan S. Blinder. 1988. "Money, Credit, and Aggregate Demand." *American Economic Review* 78 (2): 435–39.
- Blanchflower, David G., and Andrew T. Levin. 2023. "Diverse Views in Monetary Policy." International Monetary Fund, *Finance and Development* 60 (3): 28–31.
- Bordo, Michael D., and Edward S. Prescott. 2023. "Federal Reserve Structure and the Production of Monetary Policy Ideas." Working Paper 23-29. Federal Reserve Bank of Cleveland, November.

- Bordo, Michael D., and Edward S. Prescott. 2025. "Federal Reserve Structure, Economic Ideas, and Banking Policy During the 'Quiet Period' in Banking." Working Paper 25-01. Federal Reserve Bank of Cleveland, January.
- Federal Open Market Committee (FOMC). 2012. "Statement on Longer-Run Goals and Monetary Policy Strategy." January 24.
- Hetzel, Robert L. 2025. "Making Milton Friedman's Monetarism Relevant Again." Mercatus Policy Research Paper. Mercatus Center at George Mason University, March.
- Horan, Patrick. 2025. "How the Fed Should Deal with Tariffs." *City Journal*, April 9.
- Ireland, Peter N. 2022. "The Recent Surge in Money Growth: What Would Milton Friedman Say?" *Journal of Applied Corporate Finance* 34 (2): 65–81.
- Ireland, Peter N. 2023. "US Monetary Policy, 2020–23: Putting the Quantity Theory to the Test." *Journal of Applied Corporate Finance* 35 (8): 42–48.
- Ireland, Peter N. 2024a. "Money in the Search for a Nominal Anchor." Manuscript. Boston College, August.
- Ireland, Peter N. 2024b. "Targeting Nominal GDP Through Monetary Control." Policy Brief. Mercatus Center at George Mason University, December.
- Ireland, Peter N. 2025. "Money Growth and Inflation in the Euro Area, UK, and USA: Measurement Issues and Recent Results." *Macroeconomic Dynamics* 29: Article 21.
- Lacker, Jeffrey M. 2024. "Governance and Diversity at the Federal Reserve." Policy Brief. Mercatus Center at George Mason University, January.
- McCallum, Bennett T. 1985. "On Consequences and Criticisms of Monetary Targeting." *Journal of Money, Credit and Banking* 17 (11): 570–97.
- Orphanides, Athanasios. 2025. "Enhancing Resilience with Natural Growth Targeting." *Southern Economic Journal* (4): 1420–39.
- Tobin, James. 1983. "Monetary Policy: Rules, Targets, and Shocks." *Journal of Money, Credit and Banking* 15 (5): 506–18.

Notes

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1. Bordo and Prescott (2023, 2025) document how ideas originating at various Federal Reserve Banks led to significant innovations to both

monetary and bank regulatory policymaking over the period from 1950 through 2000.

2. Blanchflower and Levin (2023) and Lacker (2024) provide evidence of increased uniformity of viewpoints expressed by Federal Reserve officials in recent years and discuss the problems this lack of diversity causes for effective policymaking.
3. Ireland (2022, 2023, 2025) present more detailed quantity-theoretic analyses of both the recent surge in inflation and the Fed's efforts to bring inflation back down.
4. Hetzel (2025) supplies a broader critical discussion of the FOMC's revealed preference for discretion over monetary policy rules.
5. Beckworth (2019) provides a more comprehensive list.
6. Beckworth and Horan (2024) discusses this general point more fully, while Horan (2025) provides specific examples.
7. Federal Open Market Committee (2012) introduces this "balanced approach."
8. The "Achilles' heel" expression comes from Bernanke and Blinder (1988, 438).
9. Tobin (1983) and McCallum (1985) draw this association between nominal GDP and what they more specifically call a "velocity-shift-adjusted monetary aggregate." Related, Ireland (2024a) surveys the events that led prominent monetarist economists on the Shadow Open Market Committee to gradually move away from policy rules stabilizing the money stock and toward alternative rules for targeting nominal GDP.
10. Belongia and Ireland (2017, 2024) and Ireland (2024b) elaborate on this point.
11. Beckworth and Hendrickson (2020) and Orphanides (2025) suggest and advocate further for specific nominal income targeting rules.
12. Tracking year-over-year percentage changes helps keep the focus on intermediate-term trends and avoids overreaction to special factors, such as the surge in imports in early 2025, that often distort the quarterly growth rate figures.
13. Again, Ireland (2022, 2023, 2024b, 2025) provide details.