The Nominal Anchor, *In Originali*, and the Fed

Gregory D. Hess*

October 2024

Abstract

This paper discusses the origins of the concept "nominal anchor" and outlines its foundational insights. The term's current use by the Federal Reserve Board is then juxtaposed to the original, with several lessons emerging from the recent post-pandemic inflation episode.

I. The "Nominal Anchor" Concept, *In Originali*

What is our understanding of the term "nominal anchor"? The first reference to "nominal anchor" in the economics literature appears in Barro (1979).[1] Based on my conversations with other economists, it is surprising that the term does not appear earlier. The topic of Barro's (1979) paper was the gold standard or, more broadly, commodity-based money. He writes:

> *Since the "central bank" supports the nominal price of a reserve commodity such as gold under these systems, the determination of the absolute price level amounts to the determination of the relative price of the reserve commodity. In this sense the absolute price level becomes a determinate quantity that is amenable to usual supply and demand analyses, as applied to such things as gold production and non-monetary uses of gold. Although changes in the ratio of "money" to its commodity backing or shifts in velocity can influence the price level, the system possesses an important* ***nominal anchor*** *[emphasis added] in the fixed price of the reserve commodity. p. 13.*

---

* *President and CEO of IES Global (email: ghess@iesabroad.org). Many thanks to Mickey Levy and Athanasios Orphanides for their comments and insights. This paper is prepared for the conference, "A 50-Year Retrospective on the Shadow Open Market Committee and its Role in Monetary Policy," held by the Hoover Institution, Stanford University, October 13–14, 2024. The views expressed are those of the author and do not necessarily reflect views of IES Global or any of its affiliates.

[1] The original reference is based on a review of the economics literature using standard sources such as FRASER and others, and separately "blind" evaluated by Edward Nelson. Additional verification of Barro's coining of the concept can be found in footnote #16 in McCallum (1984), as well as in footnote two in Hoehn (1981). Should there exist uses of "nominal anchor" prior to Barro (1979), I simply apologize in advance. That said, Barro's definition and insights remain compelling for understanding and contrasting monetary systems.

"Nominal anchor," has subsequently become a weighty metaphor in the systematic design of monetary policy --- an anchor, denoted in nominal terms, prices a key resource that is an irreplaceable component of a system which tethers the nominal anchor to a policy objective of importance. Consequently, a presumably sound nominal anchor that is not embedded in a corresponding able system turns out to be no anchor at all, as it simply cannot stop the variable of importance, the price level, from arbitrarily drifting from its target.

Barro (1979) continues by contrasting the gold standard's system of possessing a nominal anchor to a fiat currency standard where, in his belief, a nominal anchor is lacking:

> *By way of contrast the absolute price level is determinate under a fiat (government-issue) currency system only up to the determination of the quantity of the fiat currency. Analysis of the price level involves, as its major element, a theory of government behaviour with respect to the quantity of money. In particular, there is no obvious nominal anchor that prescribes some* ***likely limits*** *[emphasis added] to changes in the absolute price level. p. 13*

Barro (1979) concludes the article by noting that:

> *In this context the choice among different monetary constitutions - such as the gold standard, a commodity-reserve standard, or a fiat standard with fixed rules for setting the quantity of money (possibly in relation to stabilising a specified price index) - may be less important than the decision to adopt some monetary constitution. On the other hand, the gold standard actually prevailed for a substantial period (even if from an "historical accident", rather than a constitutional choice process), whereas the world has yet to see a fiat currency system that has obvious "stability" properties. p. 31*

Again, based on Barro's (1979) original definition, a policy variable alone cannot be a nominal anchor if it is not embedded in a coherent, effective and constrained policy process in place to deliver the desired outcome. In other words, a proposed nominal anchor without an effective and systematic policy chain is just a disconnected lump of metal laying at the bottom of the ocean floor.

Barro (1982) follows up on this topic in a subsequent paper that focuses on the U.S. inflation experience at that time:

> *What is certainly clear is that before 1971 most economists underestimated the extent to which the international system of fixed exchange rates with some role for gold served, although imperfectly, to restrain growth in the world money supply and thereby the world price level. Since the move in 1971 toward flexible exchange rates and the complete divorce of United States monetary management from the objective of a pegged gold price, it is clear that the nominal anchor for the monetary system—weak as it was earlier—is now entirely absent. Future monetary growth and long-run inflation appear now to depend entirely on the year-to-year "discretion" of the monetary authority, that is, the Federal Reserve. p. 105*

Based on these early contributions, the presence of a nominal anchor includes not just an ability to deliver price stability, but also a framework for delivering the price stability goal and routinizing and constraining policy actions to be free from political decision-making and discretion. That is, not only must the nominal anchor have the potential to be able to achieve its price stability goal, but it must also be part of a system that has intrinsically embedded and operationally automated constraints to do so. Metaphorically, no (dependable systematic policy) chain, no gain (from a presumed nominal anchor).

II. The Federal Reserve's "Nominal Anchor"

The Federal Reserve's website devoted to "Monetary Policy Principles and Practice: Historical Approaches to Monetary Policy," proudly advocates the importance of a "nominal anchor" as a lynchpin in the conduct of monetary policy.[2] It states:

[2] https://www.federalreserve.gov/monetarypolicy/historical-approaches-to-monetary-policy.htm#:~:text=A%20nominal%20anchor%20is%20a,over%20some%20period%20of%20time .

> *Historically, in efforts to ensure that central banks managed financial conditions in a way consistent with achieving low and stable inflation over time, various* ***nominal anchors*** *[emphasis in the original] have been adopted or proposed in the United States and other countries. A nominal anchor is a variable--such as the price of a particular commodity, an exchange rate, or the money supply--that is thought to bear a stable relationship to the price level or the rate of inflation over some period of time. The adoption of a nominal anchor is intended to help households and businesses form expectations about the conduct of monetary policy and future inflation; stable inflation expectations can, in turn, help stabilize actual inflation.*

The document goes on to say:

> *Today the nominal anchor in the United States is the Federal Open Market Committee's (FOMC) explicit objective of achieving inflation at the rate of 2 percent per year over the longer run. This goal is supported by a policy strategy by which the FOMC responds to economic developments in a way that systematically aims to return inflation to 2 percent over time. By aiming to achieve low and stable inflation (as opposed to maintaining a particular price of gold or foreign exchange or a particular growth rate of the money supply), the FOMC has the flexibility to adapt its strategy as its understanding of the economy improves and as economic relationships evolve. The FOMC's strong commitment to its inflation objective helps crystalize the public's longer-run inflation expectations around that objective, which, in turn, helps keep actual inflation near 2 percent. This commitment further gives the FOMC room to support employment and makes monetary policy a more potent force for stabilizing the economy overall.*

Interestingly, the Fed's nominal anchor declaration stipulates that its long run inflation goal will be twinned with a flexible monetary policy strategy that will systematically return inflation to its nominal anchor. In other words, the Fed's policy actions will be strategically constrained in a flexible way to deliver inflation systematically to its long run value of 2%. In turn, the nominal anchor will make the job of hitting the target easier, which is presumably where the benefits of the Fed's well-used expression "anchored inflation expectations" derives. Critically, this leaves the existence and actual implementation of the Fed's flexible policy actions as the determining factor

as to whether 2% is just a smart long run policy goal or truly part of a "nominal anchor" system as Barro (1979) originally conceived.

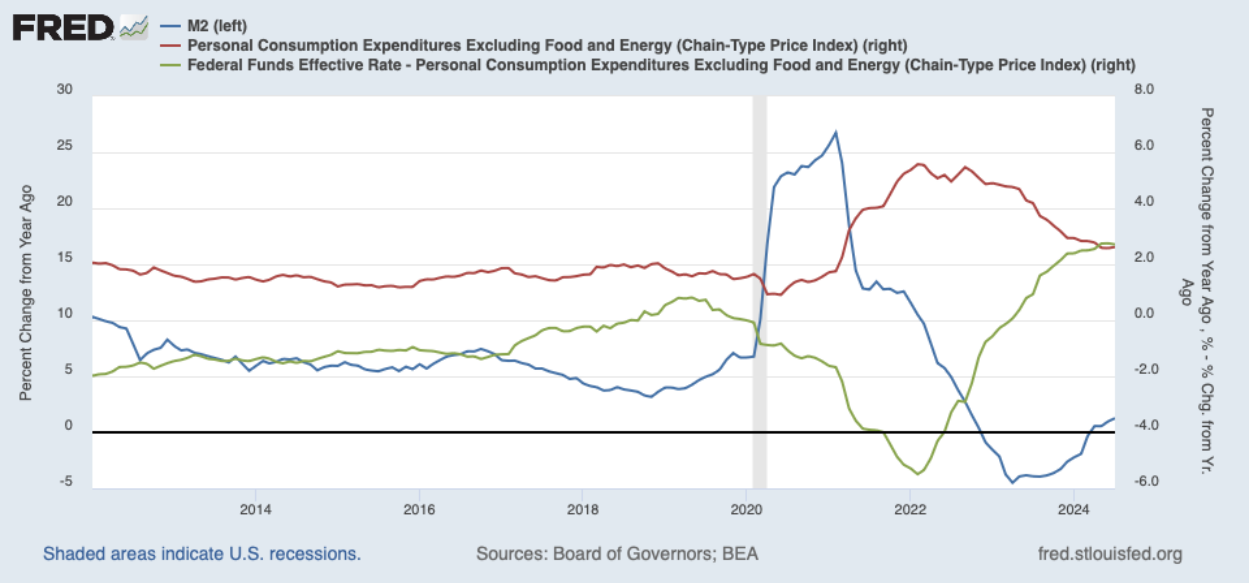
Put another way, Barro's (1979) concept of a "nominal anchor" was intended to be comprehensive – it envisioned placing the right constraints on the monetary policy process that eliminated discretion and provides systematic and automated policy responses, i.e. a form of rules that delivered price stability.[3] Barro (1979) believed that a nominal anchor must have an effective and systematic chain to deliver price stability. The Fed's use of the term "nominal anchor" is different, narrower and altered from Barro's concept – it equates the nominal anchor as a long-term inflation goal, and then asserts a flexible, and likely "data dependent" policy response that will systematically bring inflation to its 2 percent goal in the long run. As such, the crucial question for the Fed's nominal anchor is whether it can be systemically depended upon to deliver price stability or not? The evidence, so far, is decidedly mixed.

III. The Fed's Nominal Anchor Following the Post Pandemic Recession?

Since the FOMC adopted its 2 percent long run inflation nominal anchor in 2012 until the end of the Pandemic Recession in April of 2020, inflation (year-over-year percentage change, PCE price deflator excluding food and energy) averaged below 2 percent per year – see Figure 1. As shown (right scale), inflation was 0.93 percent in March of 2020, and did not rise above 2 percent until March of 2021 when it was 2.26%. That's quite a remarkable achievement for the nominal anchor, even while recognizing the arguments of economists concerned that inflation ran below a 2.0% average during this extended time period.

[3] It should come as no surprise that Barro's work on "nominal anchors" evolved into positive theories that advocated for rules rather than discretion in monetary policy – e.g., see Barro and Gordon (1983).

Unfortunately, inflation thereafter rose unabated from March of 2021 until February of 2022, eleven months, when it crested at 5.57 percent. Though not shown, PCE inflation's rise, including food and energy, was steeper, higher and of longer duration (peaking at 7.12 percent in June of 2022 as a year-over-year percentage change). Quite surprisingly, and not in a good way, facing a persistent surge of inflation almost a year in duration the FOMC did not raise the federal funds rate until March 17, 2022.



Why did the Fed's nominal anchor as a system wobble during this time period? There are two non-competing explanations. The first is that while the Fed's nominal anchor suggested that an important and critical constraint on policy was in place for it to systematically return inflation to 2 percent, there were too many additional constraints on policy that conflicted with this primary goal. My SOMC colleague Athanasios Orphanides (2023) provides substantial evidence that the recent post-pandemic inflation episode can be attributed to inappropriate constraints contained in the Fed's forward guidance in (a) the Fed's management of its policy rate in response to economic

data as well as and (b) the sequencing of its balance sheet decisions relative to changes in its policy rate. Together these resulted in a "forward guidance trap":[4]

> *"Two elements in the Fed's implementation of forward guidance induced a significant delay in the policy response to an unexpected increase in inflation: First, a decision to move from forecast-based to outcome-based forward guidance; And second, an implicit commitment to a gradual reduction of net asset purchases (tapering), and to raising policy rates only after net asset purchases ended."*

With regards to the first element, Orphanides (2023) identifies this shift by contrasting the FOMC statement released on July 29, 2020, with the subsequent one released on September 16, 2020. In the former, the Fed provided forward guidance based on the outlook of the economy, while in the latter it introduced outcome-based language explicitly derived from its August 2020 adopted "New Framework". He concludes:

> *"With this change, the Fed communicated a shift towards a myopic approach to policy. This decision alone virtually ensured a policy error in case the inflation outlook deteriorated abruptly."*

Orphanides (2023) further argues that in managing its balance sheet, the Fed's prior protocol from the Great Financial Crisis suggested that it would not raise short term interest rates until it had finished its planned net asset purchases. Furthermore, and again based on the Fed's post Great Financial Crisis experience (e.g. the "Taper Tantrum" of 2013), quick changes to planned adjustments to the balance sheet were to be avoided. These constraints and guidance inappropriately pre-determined the sequence of balance sheet actions prior to conducting interest rate tightening, and made the Fed fall further behind in addressing the secular rise in inflation in the last quarter of 2021 and the first quarter of 2022. Taken together, this led the Fed to lose the

[4] Governor Waller (2022) also thoughtfully evaluates how forward guidance may have placed additional constraints on normalizing monetary policy post-pandemic.

"flexibility to adapt its strategy as its understanding of the economy improve," quoted above, that it needed to pursue a systematic path to price stability.[5]

The second explanation for the recent wobbliness of the nominal anchor is that the Fed made an incorrect call in their initial determination that the rise in inflation was purely "transitory." There is compelling *ex-ante* and *ex-post* evidence that this was incorrect. First, not only was the observed inflation rate (Figure 1, right scale) continuously rising and in excess of 2 percent from March 2021 to February 2022, but standard measures of monetary policy (e.g. the annual growth in M2 (Figure 1, left scale) surging above 20 percent and measures of the real federal funds rate below minus 5 percent (Figure 1, right scale)) pointed to enormous monetary thrust that theory and history informs us drive large increases in the observed rate of inflation. Indeed, as inflation continued to rise above 2% and higher from March of 2021 onwards for almost a year, the real federal funds rate continued to decrease, bottoming out at -5.5 percent in February of 2022.

Second, the theoretical distinction that economists make between transitory or permanent relies on statistical inference. Given the well documented persistent and "sticky" characteristics of U.S. inflation, it would appear to be, *ex-ante*, a risky and historically contrarian bet for the Fed to place full weight on the "transitory" inference.[6,7] Moreover, even if the Fed believed the rise in inflation

---

[5] There also remains the possibility that the adoption of the FOMC's New Framework in August of 2020, which introduced a significant and official asymmetry in determining monetary policy, shifted perceptions of the Fed's intermediate target for inflation and destabilized medium term inflation expectations during the post-pandemic recovery. In turn, this may have weakened the feedback mechanism (emphasized by the Fed in an earlier quote above) of the nominal anchor on inflation.

[6] This is particularly true given the potentially large magnitude of the shock as observed in the growth of the money supply. In addition to the M2 growth noted above, monetary base growth rates exceeded 40 percent on an annual basis from April 2020 to March of 2021. In practical terms, a large transitory shock to the price level may have a substantially different and de-stabilizing impact on inflation dynamics, the predictability of the long run price level and the effectiveness of the nominal anchor than a small transitory shock to the price level, *ceteris paribus*. A primary reason is that the Fed's 2 percent inflation anchor allows for "base-drift" in the price level, so that long run prices become non-stationary. These effects can be even more destabilizing for the predictability of the long run price level when one-sided deviations are explicitly tolerated, as the Fed's 2020 New Framework incorporates.

[7] My SOMC colleague Mickey Levy (2021) argued during this critical time period that the Fed's assessment that the high inflation of 2021 was due to a transitory supply shock was inconsistent with the fastest acceleration of nominal GDP in modern history and the widespread distribution of accelerating price increases.

to be ephemeral, my former SOMC colleague Marvin Goodfriend's (1993) seminal work on inflation scares would have been a worthwhile re-read:

> *Inflation scares present the Fed with a fundamental dilemma the resolution of which has decided the course of monetary policy in the postwar period. Prior to the 1980s, the Fed generated an upward trend in the inflation rate by reacting to inflation scares with a delay. The more prompt and even preemptive reactions since the late 1970s have been a hallmark of the recent disinflation.*

Surprisingly, this time-honored advice was ignored by the Fed.

In summary, the Fed's nominal anchor system was meaningfully destabilized during the post-pandemic inflation episode for two reasons: (a) their Great Delay in tightening policy due to the "forward guidance trap" identified by Orphanides (2023) that added undue constraints to the pursuit of price stability; and, (b) their Great Denial that the rise in inflation in 2021-22 did not warrant immediate action because of its presumed transitory nature demonstrated a lack of a policy constraint that would have avoided discretionary decision making.

IV. Concluding Thoughts

Barro's (1979) concept of a nominal anchor is comprehensive, requiring the appropriate constraints on monetary policy to insure automatic, systematic and non-discretionary policy responses to insure price stability. Such rule-like behavior advocated by Barro is a core tenet of the Shadow Open Market Committee's view and is also embodied in descendants of the Taylor (1993) interest rate rule.[8] Unfortunately, during the recent post-pandemic inflation episode, the Fed's forward guidance on its balance sheet imposed the wrong constraints on policy, while its initial "transitory" call on inflation reveals that it failed to impose sufficient constraint against

[8] Indeed, my SOMC colleague Mike Bordo co-authored an important piece with Finn Kydland (1995) that provides compelling evidence that the gold standard itself, upon which Barro (1979) identifies the nominal anchor, can be interpreted as rule-like behavior.

discretionary decision making. As a result, for a significant time, these decisions unnecessarily called the efficacy and existence of the Fed's nominal anchor into question.

One can only hope that these fundamental issues for comprehensively establishing a nominal anchor will be fully addressed in the Fed's upcoming review of its 2020 Statement of Longer-Run Goals and Monetary Policy Strategy.

References

Robert J. Barro, "Money and the Price Level Under the Gold Standard," The Economic Journal, 1979, Vol. 89, No. 353 (March), pp. 13-33.

Robert J. Barro, "*United States Inflation and the Choice of Monetary Standard,"* in Inflation: Causes and Effects, Robert E. Hall, ed., NBER, University of Chicago Press, 1982.

Robert J. Barro and David B. Gordon, David B, "A Positive Theory of Monetary Policy in a Natural Rate Model," Journal of Political Economy, 1983, vol. 91(4), pages 589-610, August.

Michael D. Bordo and Finn E. Kydland, "The Gold Standard as a Rule: An Essay in Exploration," Explorations in Economic History, 32, Issue 4, 1995, 423-464.

Marvin Goodfriend, "Interest Rate Policy and the Inflation Scare Problem: 1979–1992," Federal Reserve Bank of Richmond Economic Quarterly, Volume 79/1, Winter 1993.

James G. Hoehn, "Back to Gold," Voice of the Federal Reserve Bank of Dallas, March 1981, 1-11.

Mickey Levy, "Inflation: Some Temporary Factors, but Underlying Pressures Mount." Shadow Open Market Committee, 19 June 2021."

Bennett T. McCallum, "Credibility and Monetary Policy," paper prepared for the August 1—3, 1984, symposium on Price Stability and Public Policy, Jackson, Wyoming, sponsored by the Federal Reserve Bank of Kansas City.

Athanasios Orphanides, "The Forward Guidance Trap," Institute for Monetary and Economic Studies, Bank of Japan, IMES Discussion Paper Series, No. 2023-E-6.

John B. Taylor, "Discretion Versus Policy Rules in Practice," Carnegie-Rochester Conference Series on Public Policy 39 (1993) 195-214.

Christopher J. Waller, "Lessons Learned on Normalizing Monetary Policy," Speech at the Dallas Society for Computational Economics, June 18, 2022.