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An Effective Monetary Policy with Nominal GDP Level Targeting

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The Federal Reserve should consider adopting a policy of nominal GDP level targeting (NGDPLT), which is superior to the flexible average inflation targeting regime that it adopted in 2020. NGDPLT is the best way to stabilize the labor market and the financial system while maintaining an average inflation rate of close to 2 percent. This approach to monetary policy is fully consistent with the Fed's dual mandate and is relatively easy to explain to the public.

Over the next year, the Federal Reserve (Fed) plans to review its approach to monetary policy. In this report, I argue that the Fed should consider adopting a policy of nominal GDP level targeting (NGDPLT). I briefly examine the logic behind such a system and address several of the reservations that monetary policymakers have expressed regarding NGDPLT.[1]

The Current Policy Regime

The Fed's previous policy review led to a policy change enacted during 2020, which it called flexible average inflation targeting, or FAIT. The basic idea was to allow make-up policies to ensure that inflation averaged 2 percent over the longer run. Fed officials believed this would make monetary policy more effective during a slump, particularly when interest rates fall close to zero.

The FAIT regime adopted in 2020 turned out to be an asymmetric policy. The Fed decided to offset periods of inflation below 2 percent with future periods of inflation above 2 percent, but there was no similar commitment to offsetting inflation overshoots. Because inflation substantially exceeded the Fed's 2-percent target from 2021 to 2023, this asymmetry came in for considerable criticism.[2]

There is a strong argument for make-up policies when inflation deviates from its target path. Indeed, the FAIT policy largely explains why the recovery from the 2020 recession was quicker than the recovery from the Great Recession of 2008–09. However, the asymmetry in FAIT led to a large inflation overshoot.

Future Fed reforms should eliminate the asymmetry in the Fed's FAIT regime to ensure that inflation averages close to 2 percent in the long run. Although FAIT is a form of inflation targeting, NGDPLT would be much more effective at maintaining a 2-percent average inflation rate.

The Intuition Behind NGDPLT

When advocating a particular policy regime, economists often develop elaborate mathematical models. They then compare the welfare effects of various monetary policy regimes where their economic models are subjected to shocks such as a banking crisis or a war. Unfortunately, there is no agreement on which model best describes the economy; indeed, economists have offered dozens of competing models. In addition, there is no general agreement as to exactly why inflation is harmful. And many so-called exogenous shocks to the economy are actually endogenous responses to previous policy mistakes.

Rather than develop a complex model that may not accurately describe the US economy, it makes more sense to consider a few broad questions when evaluating monetary policy: What are the major problems that result from monetary policy mistakes? And what sort of monetary regime would minimize those errors?

Here it will be useful to consider two types of monetary policy mistakes: excessively contractionary policy and excessively expansionary policy. An excessively contractionary policy tends to reduce inflation, NGDP growth, or both to below target levels. By itself, lower inflation is generally viewed as a good thing. But if it results from a fall in NGDP growth, then lower NGDP growth tends to increase unemployment and may even trigger a financial crisis.

Both outcomes result from the same underlying issue—nominal contracts. Because most wage contracts are not indexed to inflation, a fall in NGDP results in less nominal revenue to pay employees, and firms respond by laying off workers. In addition, because most debt contracts are specified in nominal terms, a fall in NGDP means that people and firms have less revenue to repay their nominal debts. This often increases debt defaults, putting stress on the banking system.

The widespread use of nominal contracts explains why it is better to use NGDP rather than inflation as an indicator of appropriate monetary policy. Inflation does not represent the resources that firms have to pay nominal wages to employees, nor does it represent the revenue that people and firms have available to repay nominal debts. In both cases, NGDP is the variable that best measures whether there is equilibrium in the labor market and in the financial markets. Macroeconomic stability is associated with moderate, consistent NGDP growth.

If an excessively contractionary monetary policy can trigger high unemployment and financial distress, what is wrong with an excessively expansionary monetary policy? While lots of jobs and a booming financial sector don't sound like a problem, excessive stimulus can lead to other problems, most notably high inflation.

Because monetary policy does not impact the economy's long-run trend rate of real GDP growth (which is roughly 2 percent), faster NGDP growth will eventually lead to higher inflation. Here again the underlying problems are associated with nominal contracts. For instance, unexpectedly rapid inflation tends to redistribute wealth from savers to borrowers. Those on fixed incomes may also fall behind. In addition, the US tax system treats nominal returns on capital as if they represent real income. This means that a more inflationary monetary policy implicitly raises the effective tax rate on saving and investment, discouraging capital formation.

Objections to NGDPLT

Over the past 15 years, some prominent economists who once favored inflation targeting have switched to endorsing some form of NGDP targeting.[3] Nonetheless, not a single central bank has switched to NGDP targeting. When asked about the possibility of targeting NGDP, economists offer several objections:

1. The Fed's congressional mandate calls for stable prices, not stable NGDP.
2. The public understands inflation targeting better than it understands NGDP targeting.
3. Level targeting would require painful make-up policies after an expansionary overshoot.
4. NGDP is subject to long reporting lags, and the data is subject to revision.

I will argue that NGDPLT is more consistent with the Fed's congressional mandate than is inflation targeting. In addition, the public would find it easier to understand the logic of NGDPLT than inflation targeting. NGDPLT would result in less severe business cycles than would inflation targeting, requiring fewer painful make-up policies. And the data lag issue is not a major problem if the Fed targets NGDP forward by 12 or 24 months.

The Congressional Mandate

Congress did not give the Fed a mandate to target inflation. (The actual mandate mentions stable prices, high employment, and moderate long-term interest rates.)[4] Instead, Fed officials have interpreted the mandate to mean that a 2-percent inflation target is optimal. They believe that inflation targeting best balances the most important parts of the dual mandate (stable prices and high employment).

If it is true that Congress didn't ask the Fed to set a 4-percent NGDP target, it is equally true that Congress did not instruct the Fed to set a 2-percent inflation target. Congress set a rather vague mandate for stable prices and high employment. But which prices? And how high should employment be? And what if the goals conflict? Congress was silent on those questions.

If the Fed were to focus solely on keeping inflation at 2 percent, then it would not be fulfilling its mandate, because a simple inflation target would ignore the issue of employment. The Fed has

decided (correctly in my view), that there are times when it is best to allow inflation to deviate slightly from its 2-percent target to help stabilize the labor market. This is why the Fed calls its current regime "flexible" inflation targeting.

A regime of NGDPLT along a 4-percent trend line would be consistent with the spirit of the Fed's congressional mandate. Because long-term real growth averages roughly 2 percent, a 4-percent NGDP target would ensure that inflation stayed near 2 percent in the long run. Note that inflation has not averaged close to 2 percent since the Fed adopted FAIT in 2020. Instead, the inflation rate has averaged slightly over 4 percent. Thus, NGDPLT at 4 percent per year would do a better job than inflation targeting at ensuring long run price stability.

NGDPLT is especially well-suited to meeting the Fed's high employment mandate. The labor market tends to do best when NGDP growth is moderate and stable. In contrast, inflation does not provide a good indicator of the effect of monetary policy on employment. For instance, inflation rose sharply during mid-2008, while NGDP growth slowed substantially. In retrospect, NGDP growth was the better indicator of Fed policy, which was not expansionary enough to prevent a severe recession in the second half of 2008.

The NGDP growth rate is the sum of inflation and the real GDP growth rate. Thus, you can think of NGDPLT as putting equal weight on inflation and real growth. And because employment is correlated with real growth in the short run, NGDPLT also puts equal weight on both sides of the Fed's congressional mandate.

The Public Doesn't Understand Inflation Targeting

The average person is probably more familiar with the term "inflation" than they are with the term "nominal GDP." This has led some monetary policymakers to wrongly conclude that inflation targeting is easier to explain than NGDP targeting. In fact, just the opposite is true. Based on my experience teaching economics for more than three decades, I doubt whether one American in a hundred actually understands inflation targeting.

Consider the following thought experiment. Suppose that during 2020, a Fed official had gone to a town meeting and told the public that the Fed was trying to raise their cost of living at a rate that was even faster than normal. Inflation had briefly fallen to roughly 1 percent, and the Fed was aiming to raise inflation to a rate above 2 percent so that inflation would average 2 percent in the long run. How would the average person have reacted to that policy?

Economists tend to think of inflation as a symmetrical target; like ditches on the sides of a highway, excessively high or low rates of inflation are both undesirable places to end up. But the average person probably assumes that the 2-percent inflation target is more like a ceiling, and that the Fed is trying to prevent inflation from rising above 2 percent. From their perspective, the less inflation, the better.

The average person has no understanding of Phillips-curve arguments that excessively low inflation is bad because it leads to unemployment when wages are sticky. So it is incorrect to say the public understands inflation targeting, at least in the sense that central bankers understand it.

The public views inflation as a bad thing, and most people probably assume (wrongly) that the Fed adopted a 2-percent inflation target because of some sort of practical difficulty in setting a lower target. In fact, it would be possible to adopt a monetary policy where inflation averaged close to 0 percent; indeed, central banks in Japan and Switzerland were able to do so for extended periods of time. But the Fed has determined that a 2-percent target is more consistent with the high employment part of its mandate, partly because it would help to avoid the zero lower bound (ZLB) for interest rates. Many foreign central banks have reached a similar conclusion.

Once again, however, NGDP targeting is better able than inflation targeting to avoid the zero-bound problem. Recall that:

Expected NGDP growth = expected inflation + expected real growth

Nominal interest rates = expected inflation + real interest rates

Because real interest rates are strongly linked to expected real GDP growth rates, nominal interest rates are often more closely correlated with NGDP growth than with inflation. As the events of 2008 proved, a central bank that wishes to avoid the ZLB would do better to ensure that NGDP growth remained close to 4 percent than to keep inflation close to 2 percent.

Although the public is not broadly familiar with the term "nominal GDP," the concept of NGDP targeting would be easier to explain to the average person than inflation targeting. Policymakers could tell voters that 4-percent growth in the total income earned by Americans would lead to a healthy economy. If total income grew by more than 4 percent, it would risk triggering high inflation and a cost-of-living crisis for the average consumer. But if total income grew by less than 4 percent, then there would be a danger of high unemployment and recession. Helpfully, this explanation does not require any counterintuitive mention of low inflation as a problem; the public doesn't understand why very low inflation is bad.

The Purpose of Level Targeting

In recent decades, economists have increasingly supported level targeting.[5] The term is slightly misleading, because it doesn't imply that either prices or NGDP stay at a constant level. Rather, level targeting means that policymakers care about the level of the variable being targeted more than they care about the growth rate. Level targeting can also be applied to prices, but NGDPLT is more effective in addressing the dual mandate.

One widely accepted purpose of level targeting is to provide a more effective policy when interest rates are near the ZLB and cannot be cut further to spur the economy. If the central bank promises higher future inflation or NGDP growth to offset the lower levels during a recession, then monetary policy expectations become more bullish. When expectation of future nominal growth increase, any given interest rate setting becomes more expansionary. This is because what matters for policy is not just the level of interest rates, but rather the level relative to expected future growth in nominal incomes.

Equally true, though less understood, is the fact that level targeting makes the economy less volatile by stabilizing expectations of future growth in aggregate demand. Just as the current price of a financial asset is strongly linked to its expected future value, the current level of aggregate demand is strongly impacted by the expected future level of aggregate demand. When an economy is on the edge of sliding into recession, one of the worst things that can happen is for expectations of future nominal spending to fall sharply. Unfortunately, this is exactly what happened in late 2008, and it dramatically worsened a recession that was already underway.[6]

If the central bank promises to make up any short run undershoots in NGDP growth with higher-than-average future growth, then expectations remain more bullish when there is a period of temporarily depressed demand. The Fed did this during the COVID shutdowns, and this was one factor in preventing expectations from becoming excessively bearish. Once vaccines were developed, this monetary policy allowed for a rapid recovery in nominal spending.

By mid-2021, the United States was back to its pre–COVID NGDP trend line. Unfortunately, the Fed policy was asymmetric, and there was no similar commitment to offset overshoots with a more contractionary future policy. In part, this asymmetry might have resulted from policymakers' fear that cooling the economy would cost too many jobs—a fear that is unfounded when the economy has overheated. This false assumption occurs when people conflate the effects of slowing NGDP growth in an overheated economy with slowing NGDP growth in an economy that is already close to equilibrium in the labor market.

If the economy is currently at equilibrium and growing at roughly 4 percent per year, then a sudden drop in NGDP growth to 1 or 2 percent can lead to significantly higher unemployment. This outcome is much less likely to occur, however, when NGDP growth slows from a position where the economy is overheated, as it was during 2022. At that time, there was a severe labor shortage, and many firms were having trouble filling positions.[7] During the first six months of 2023, for example, real GDP growth was actually negative, yet unemployment remained near 3.5 percent, the lowest level since the 1960s. Modestly slower NGDP growth is not painful when the economy is overheated.

The strongest argument for level targeting is that it helps to stabilize NGDP growth, reducing the need for costly make-up policies after monetary policy mistakes. Consider the easy money

policy of late 2021 and early 2022, now widely viewed to be an error that contributed to high inflation.[8] (Some of the inflation was due to supply problems, but excessive NGDP also played a major role.)

If, instead of FAIT, the Fed had announced a credible NGDPLT policy in 2020, then financial market participants would have seen that the excessive NGDP growth of late 2021 would eventually necessitate a contractionary make-up policy. The expectations of significant increases in the short-term interest rate in the future would have led to an immediate rise in longer-term interest rates in late 2021. In other words, the mere expectation of a future contractionary policy causes an immediate tightening of monetary conditions. This helps to slow the economy, reducing the extent to which demand overshoots the Fed's target path.

A commitment to keep longer-term NGDP growth along a 4-percent growth path helps to stabilize short-run movements in NGDP. To see why, consider a major investment project that is just getting underway when an adverse shock rattles the economy. If the central bank commits to returning the economy to the previous trend line soon, the business may continue with the investment project, expecting that the economy will be in better shape when the project finally comes onstream.

In contrast, if investors fear that the central bank will not try to correct a near-term slump in the economy, then they may decide to cancel the project, making the downturn even worse. This is what happened in late 2008, when it became apparent that the Fed would not attempt to return NGDP to the pre-recession trend line.

NGDP Data Lags and Revisions

NGDP is reported with a longer lag than inflation and is subject to significant revisions as new data become available. This has led some central bankers to argue that policy should focus on more timely data, like inflation and unemployment. In my view, the problem of policy lags and revisions is less severe than many policymakers assume, for a variety of reasons.

Although NGDP is only reported every three months, it is based on other economic time series that are reported much more frequently. As a result, economists inside and outside the Fed have developed many real-time estimates of GDP growth. A good example is the Atlanta Fed's GDPNow forecasting model, which provides estimates of real GDP growth for the current quarter and is updated as new economic data become available.[9] Even if the Fed opts not to target NGDP, it would be useful for the Atlanta Fed to augment its forecasts for real GDP with similar forecasts for NGDP growth.

With more of the economy going online, and with rapid improvements in artificial intelligence, it is likely that real-time GDP estimates will become increasingly accurate in the future. Further

improvements could occur if there were futures contracts linked to NGDP growth, analogous to the CPI inflation swaps that are traded in the financial markets.

Central banks generally assume that monetary policy impacts the economy with a lag. This means that under an NGDP targeting regime, central banks might choose to target NGDP one or two years out in the future, rather than at its current level. In that case, the three-month lag in NGDP reporting is less of a problem.

Issues related to data revisions can be reduced by constructing an NGDP estimate that averages nominal GDP and nominal gross domestic income (NGDI). Conceptually, these two measures should be identical, but because the data are collected using different methods, the two measures of national income often diverge in the short run. Studies suggest that averaging the growth rates of NGDP and NGDI provides a more accurate measure of the actual increase in national income than either measure does alone.[10]

Conclusion

An increasing number of economists have reached the conclusion that NGDPLT is superior to inflation targeting.[11] Central bankers have resisted abandoning inflation targeting due to a wide range of factors; however, upon closer inspection, none of the arguments against NGDPLT are persuasive.

Nominal GDP targeting is the best way to stabilize the labor market and the financial system while keeping average inflation close to 2 percent. This approach is consistent with the Fed's dual mandate and is relatively easy to explain to the general public. Targeting the level of nominal GDP helps to avoid the ZLB for interest rates and creates an environment where the public and business can plan with less uncertainty about the future path of nominal income. Problems with data lags and revisions are not significantly more severe than with other monetary policy targets.

Nominal GDP level targeting offers the most promising method of avoiding the type of mistakes made during the 2008 recession and the post–COVID inflation. The Fed should set a roughly 4 percent annual growth target for NGDP, and commit to return to that trend line if an economic shock temporarily pushes the economy off course.

About the Author

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Notes

1. David Beckworth provides a more detailed explanation of the operation of a nominal GDP level targeting regime in his paper entitled, "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. Lisa Beilfuss, "'We Are Still Headed for a Pretty Hard Landing,' Ex-Treasury Secretary Larry Summers Says," *Barron's*, June 17, 2022.
3. For extensive citations of recent support for NGDPLT see David Beckworth and Josh Hendrickson, "Facts, Fears, and Functionality of NGDP Level Targeting: A Guide to a Popular Framework for Monetary Policy" (Mercatus Working Paper, Mercatus Center at George Mason University, October 2019).
4. Board of Governors of the Federal Reserve System, "Monetary Policy Principles and Practice" (website), last updated July 29, 2021, https://www.federalreserve.gov/monetarypolicy/monetary-policy-what-are-its-goals-how-does-it-work.htm.
5. For a particularly influential example see Michael Woodford, "Methods of Policy Accommodation at the Interest-Rate Lower Bound" (Columbia University, 2012).
6. Scott Sumner, *The Money Illusion: Market Monetarism, the Great Recession, and the Future of Monetary Policy* (University of Chicago Press, 2021).
7. Jared McEntaffer, "The Labor Shortage Is Real but Don't Blame Quiet Quitting," (Dakota Institute, November 21, 2022).
8. Even Fed chair Jerome Powell has acknowledged that policy should have tightened sooner during the 2021–22 period.
9. Federal Reserve Bank of Atlanta, Center for Quantitative Economic Research, "GDP Now" (web page), last accessed September 13, 2024, https://www.atlantafed.org/cqer/research/gdpnow.
10. Goldman Sachs, US Economics Analyst, "Making Sense of the GDP-GDI Gap (Abecasis)," February 11, 2024, https://www.gspublishing.com/content/research/en/reports/2024/02/11/ac7608b8-0385-4e97-86e0-064e27858d79.html.
11. Beckworth and Hendrickson, "Facts, Fears, and Functionality of NGDP Level Targeting."