

A NEW VIEW OF THE GREAT RECESSION

Scott B. Sumner argues US monetary policy has been too tight, not too easy

Five years on, economists still don't agree on the causes of the financial crisis of 2007–08. Nor do they agree on the correct policy response to the subsequent recession. But one issue on which there is almost universal agreement is that the financial crisis caused the Great Recession.

In this essay, I suggest that the conventional view is wrong, and that the financial crisis did not cause the recession—tight money did. This new view must overcome two difficult hurdles. Most people think it is obvious that the financial crisis caused the recession, and many are incredulous when they hear the claim that monetary policy has been contractionary in recent years. The first part of the essay will explain why the conventional view is wrong; monetary policy has indeed been quite contractionary in the United States, Europe and Japan (but not in Australia.) The second part will explain how people have reversed causation, attributing the recession to the financial crisis, when in fact to a large extent the causation went the other direction.

The most surprising aspect of this view is that I rely solely on mainstream macroeconomic theory. The standard macro model being taught in graduate schools for decades implies that the conventional view of the Great Recession is almost completely inaccurate.

The 'stance' of monetary policy

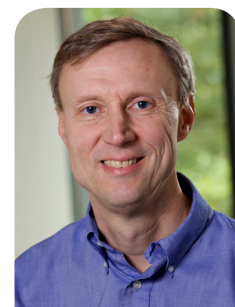
Given that commentators frequently use terms like 'easy money' and 'tight money,' one might assume that economists have a clear idea as to what these terms mean. In fact, just the opposite is true, although most people aren't even aware of

the ambiguity. Here's Milton Friedman in 1998 expressing dismay that economists were confusing easy and tight money in Japan:

Low interest rates are generally a sign that money has been tight, as in Japan; high interest rates, that money has been easy ... After the U.S. experience during the Great Depression, and after inflation and rising interest rates in the 1970s and disinflation and falling interest rates in the 1980s, I thought the fallacy of identifying tight money with high interest rates and easy money with low interest rates was dead. Apparently, old fallacies never die.¹

Many pundits claim that the Bank of Japan (BoJ) tried an easy money policy in the 1990s and early 2000s because nominal interest rates were low and the monetary base was growing rapidly. Yet the same could be said about the United States of the 1930s, now regarded as a period of 'tight money.'

Unlike Friedman, Ben Bernanke, chairman of the US Federal Reserve, is viewed as a moderate and rather conventional new Keynesian economist. Here's how Bernanke described various



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techniques for measuring the stance of monetary policy in 2003:

The imperfect reliability of money growth as an indicator of monetary policy is unfortunate, because we don't really have anything satisfactory to replace it. As emphasized by Friedman (in his eleventh proposition) and by Allan Meltzer, nominal interest rates are not good indicators of the stance of policy, as a high nominal interest rate can indicate either monetary tightness or ease, depending on the state of inflation expectations. Indeed, confusing low nominal interest rates with monetary ease was the source of major problems in the 1930s, and it has perhaps been a problem in Japan in recent years as well. The real short-term interest rate, another candidate measure of policy stance, is also imperfect, because it mixes monetary and real influences, such as the rate of productivity growth ...²

Ultimately, it appears, one can check to see if an economy has a stable monetary background only by looking at macroeconomic indicators such as nominal GDP growth and inflation.

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If we use Bernanke's inflation criterion, then US monetary policy since mid-2008 has been the tightest in 50 years. If we use nominal gross domestic product (NGDP) growth, then it is the tightest since the early 1930s. Indeed, even the average of the two indicators shows policy has been tighter than at any time since Herbert Hoover was president. This is extraordinary. Even more extraordinary is how economists almost universally overlooked the ultra-tight money.

Of course, some might argue the Fed did all it could, but Bernanke was contemptuous of that argument when the BOJ conducted similar low interest rate/quantitative easing (QE) policies in the late 1990s and early 2000s.³ In 1999, he argued that the BOJ could have and should have done much more.

Any lingering doubts about monetary policy in 2008 are erased by the three key concepts in the number one monetary economics textbook, by Frederic Mishkin, a former member of the Fed's Board of Governors:

1. It is always dangerous to associate the easing or the tightening of monetary policy with a fall or a rise in short-term nominal interest rates.
2. Other asset prices besides those on short-term debt instruments contain important information about the stance of monetary policy because they are important elements in various monetary policy transmission mechanisms.
3. Monetary policy can be highly effective in reviving a weak economy even if short-term rates are already near zero.⁴

For years, American professors had been teaching these ideas to thousands of economics students. And yet, in late 2008, there was an almost complete failure to recognise the nature of monetary policy, as if mass amnesia had set in. Consider the 'other asset prices' Mishkin suggested could help identify the stance of monetary policy:

1. The spread between the yields on conventional and inflation-indexed bonds (Treasury Inflation Protected Securities or TIPS spreads) plunged in late 2008, indicating falling inflation expectations.
2. The stock market crashed, and commodity price indices fell by more than 50%.
3. The dollar soared by 15% in trade-weighted terms between July and December 2008, a highly unusual pattern for a country in the midst of a severe financial crisis.
4. The prices of residential real estate, which had been falling in the so-called 'subprime states,' began falling all across the country. This made the financial crisis much worse.

5. The prices of commercial real estate, which had held up well during the initial subprime mortgage crisis, began falling. This made the financial crisis much worse.
6. Real interest rates on five-year Treasury bonds rose from 0.57% in July to 4.2% in late November, an extraordinarily sharp increase.

All six asset markets pointed to tight money.

Many economists wave away my objections to the unreliability of interest rates as an indicator of the stance of monetary policy, arguing: ‘Yes, nominal rates are unreliable, but surely real interest rates are useful.’ Actually they are not, as Bernanke indicated. Few economists noticed that real interest rates soared in late 2008, suggesting that they focus on nominal rates and only pay lip service to the advantages of real interest rates.

Monetary policy became highly contractionary in late 2008, at least in the stance of monetary policy based on the criteria identified by our leading monetary theorists, policymakers and textbooks. Let us examine the impact of this tight money.

The great nominal GDP crash of 2008–09

In the United States, the monetary base tends to grow about 5% to 6% per year. From February 2007 to April 2008, the growth rate of the monetary base came to a virtual halt, growing by only 1%. Base velocity rose slightly, but not enough to prevent a slowdown in nominal GDP growth in early 2008. Although the recession officially began in December 2007, its most severe phase began in July 2008, when monthly estimates of nominal GDP (from Macroeconomics Advisers) began plunging. By December 2008, the big crash in NGDP was almost over, although the quarterly data show a continued decline in early 2009. This ‘nominal shock’ is perhaps the most misunderstood aspect of the financial crisis and the subsequent recession.

Before analysing this period in detail, let us consider the impact of a hypothetical sharp decline in nominal GDP growth during ‘normal times.’ Suppose 100 economists had been asked in 2006 what would happen if the Fed suddenly adopted a highly contractionary monetary policy and NGDP began falling in late 2008 at the sharpest

rate since the 1930s. Almost all would predict a severe recession. In the short run, real and nominal GDP are highly correlated because of sticky wages and prices. Some might also predict a financial crisis, as most debts are denominated in nominal terms. When nominal income falls sharply below levels expected at the time contracts were signed, then individuals, business and even governments may have difficulty repaying their nominal debts. And by mid-2008, NGDP in the United States had already fallen by 4%, which was 9% below the positive 5% trend line. This was the biggest nominal shock since 1938.

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Now let’s change the question slightly. Go back to 2006 and ask the same 100 economists the following hypothetical:

Imagine the housing bubble burst and how many subprime mortgages began defaulting in 2007 and 2008. Assume this puts stress on the US banking system, but Fed officials estimate that the banking losses will be manageable. Now assume that on top of the existing subprime problem, the Fed imposes the biggest nominal shock since the 1930s, and pushes NGDP 9% below trend. How would this shock affect the severity of the financial crisis?

The almost unanimous response of economists would be: ‘The crisis would get much worse.’ Of course, there’s no need to stop there. One could also ask the following:

What would happen if tight money in the Eurozone pushed NGDP growth 20% below trend, a much sharper nominal shock than in the United States? And suppose some European countries had existing sovereign debt problems?

It's easy to see that the countries with existing debt problems (Greece) might be pushed to default, whereas those with lower levels of debt but a severe recession (Spain) might see the risk premium on their debt soar much higher. All these effects are entirely predictable, given the severity of the nominal shock hitting the Eurozone. If wages are especially sticky (and they are in most Eurozone countries, Germany being a notable exception), one might also expect very high unemployment.

In contrast, consider a country that was able to avoid a severe nominal shock. In Australia, NGDP growth averaged 6.5% from 1996:2 to 2006:2, and then 6.5% from 2006:2 to 2012:2. That's not to say Australia was not affected by the global slump; the commodity cycle of 2007–09 led to some short-term instability in Australian output. However, the longer-term trend of stable NGDP growth prevents Australia from sliding into a deep and prolonged slump.

In contrast, US NGDP growth slowed from 5.5% between 1996:2 and 2006:2 to 2.6% between 2006:2 and 2012:2. In the Eurozone, NGDP growth has averaged only about 0.5% over the past five years! In the late 1990s, Friedman pointed out that a tight money policy in Japan had caused NGDP growth to slip from 5% during the 'golden age' of 1982–87 to 1.2% during the 'troubled times' of 1992–97.⁵ Were Friedman alive today, he would almost certainly have criticised the Fed's willingness to allow an eerily similar slump in US NGDP growth in the three years after mid-2008.⁶

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How did monetary policy fail?

Even if people are convinced that the fall in nominal GDP played an important role in the recession, and in worsening the financial crisis, many are reluctant to blame the major central banks. At worst (they argue) the Fed was guilty of errors of omission. And why single out monetary policy? Wasn't fiscal austerity also to blame? And can monetary policy actually boost nominal GDP

when interest rates have fallen to zero, especially in the middle of a severe financial crisis?

It turns out there are good answers to all these objections. It was not just errors of omission. During recent decades there was a growing agreement that monetary policy, not fiscal policy, should determine the path of nominal aggregates such as inflation and NGDP. Monetary policymakers were never 'out of ammunition,' nor did they claim to be out of ammunition. And monetary stimulus can be highly effective, even when the banking system is dysfunctional.

The Fed made five serious errors in late 2008. It targeted the wrong variable (inflation, not NGDP), engaged in growth rate targeting rather than level targeting, and adopted a backward looking monetary regime rather than targeting the forecast, as Lars Svensson of the Swedish Riksbank had recommended.⁷ The Fed instituted a highly contractionary policy of 'interest on reserves' in October 2008, and finally, it was too passive once nominal rates hit zero.

Many people assume the Fed merely made errors of omission, as the most costly mistakes occurred in late 2008, when it failed to adequately accommodate a large increase in the demand for money during the financial crisis, and the subsequent zero interest rate period. However, the Fed actually adopted a tight money policy in 2007, when it sharply slowed the growth in the monetary base. And many forget that the United States was not zero bound during the great NGDP collapse of June to December 2008; indeed, interest rates fell to near-zero levels only in mid-December.

Consider the Fed meeting of 16 September 2008 two days after Lehman Brothers failed. The Federal Open Market Committee (FOMC) voted to hold rates at 2%, citing an equal risk of recession and inflation. The risk of recession is obvious; we had already been in recession for nine months. But why the perceived risk of high inflation? By the day of the meeting, five-year TIPS spreads had fallen to only 1.23%, far below the Fed's 2% target. In fact, the real risk was excessively low inflation, not high inflation. The Fed should have cut rates dramatically.

Why was the Fed decision-making so misguided? It adopted a 'backward-looking' policy, focusing

on the relatively high inflation of the previous 12 months (mostly due to high oil prices that were already plunging by the time the Fed met). It was like trying to steer a car while looking only in the rear-view mirror. A forward-looking policy would have allowed the Fed to be far more aggressive. In retrospect, even Fed officials understand they erred in late 2008, but they still have not grasped the full scope of their policy failure.

Svensson has argued that central banks should ‘target the forecast,’ that is, set policy such that the central bank’s forecast for the economy is equated with the policy goal.⁸ For instance, if a central bank has a 2% inflation target, it should set the official Federal Funds rate and monetary base at a level expected to produce 2% inflation. This is such commonsense that many non-economists are shocked to learn that real world central banks don’t behave this way. Instead, they resemble a ship’s captain who says while he hopes to reach the port of New York, and has been heading that way, given the current setting of the helm, along with forecasted wind and currents, he expects to end up in Boston. The attitude is perhaps understandable when interest rates are stuck at zero, but the Fed wasn’t even targeting the forecast in the second half of 2008, when rates were still above zero.

In mid-December 2008, the Federal Funds target finally reached a level of zero to 0.25%, effectively ruling out further reductions. In theory, this should not have been a problem. There’s much academic literature discussing alternative operating procedures; Bernanke himself wrote papers discussing what the BoJ should have been doing, but was failing to do, when rates in Japan hit zero in the late 1990s.⁹ But in practice, the Fed became very timid, and failed to aggressively pursue a policy of monetary stimulus.

Instead, Bernanke called for help from the Treasury. Under normal circumstances, that shouldn’t have been necessary, as monetary policy is usually more effective in boosting demand than fiscal policy, and doesn’t boost the deficit and therefore impose the burden of higher future (distortionary) taxes. It’s not clear why the Fed didn’t just attempt its own more aggressive stimulus. Bernanke expressed vague worries

about unspecified ‘risks and costs’ of taking such an aggressive stand; yet he was not burdened by similar worries when in the early 2000s he encouraged the BoJ to be more aggressive.¹⁰

Nominal GDP level targeting

At one time, I believed that the two policy failures discussed above were the most crucial ones. These weaknesses made the policy somewhat ‘clumsy,’ or slow to adjust to market conditions. But I’ve since come to conclude that failure to target the level of nominal GDP was the most important.

There are all sorts of practical problems with inflation targeting that make it unsuitable for macroeconomic stabilisation policy. Indeed, most central bankers understand this, which is why they often speak in terms of ‘flexible inflation targeting.’ If energy prices rise sharply during a recession (as in 2008), it may not be wise to deflate all other prices merely to achieve an arbitrary inflation target.

Failure to target the level of nominal GDP was the most important.

Part of the problem with inflation targeting can be addressed by switching to the core inflation rate. But many other problems remain. In Europe, the European Central Bank (ECB) has adopted increasingly contractionary monetary policies to offset the impact of increases in consumption tax rates. Thus fiscal austerity triggers monetary austerity. Even worse, the fiscal austerity was enacted to address debt problems caused by the severe recession, which itself was a product of the ECB’s ultra-tight monetary policy. The ECB raised interest rates several times in 2011, triggering a double-dip recession from which the Eurozone has yet to emerge.

In the United States, the CPI numbers are distorted by housing, which comprises nearly 40% of the core CPI. Official figures show US housing prices rising about 10% between 2006 and 2012, even as the Case-Shiller house price index showed housing prices plunging by nearly 35%. There is no ‘objective’ measure of housing costs; any definition is arbitrary. But surely it makes more sense to use a measure that reflects the actual conditions in the

housing market, where thousands of workers lost jobs because of the sharp collapse in home prices.

No price index is reliable enough to serve as a guide to monetary policy, as both supply and demand shocks affect the price level. In contrast, periods of high unemployment are strongly associated with declines in NGDP relative to hourly wage rates. Mankiw and Reis (2010) showed that a wage inflation target might prove superior to a price inflation target. However, wage targeting is probably not politically feasible, and it is not easy to construct a truly comprehensive wage index.¹¹ Nominal GDP targeting is a good compromise policy. In a world of sticky nominal wages, a gradual and steady increase in NGDP will result in low inflation over time, and also moderate fluctuations in hours worked. Supply shocks that require lower real wages can be accommodated much more easily if prices are allowed to rise than if nominal wages must be cut.

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NGDP level targeting is a very powerful tool both for limiting central bank discretion and establishing policy credibility. It forces a central bank to do what it says it is trying to do. Consider Japan, which has experienced mild deflation since the mid-1990s. Because the rate of deflation has been quite modest, often below 1%, the BoJ can claim from its rate targeting perspective that it has merely fallen a bit shy of its goal of achieving price stability. The BoJ has been rather vague about what its goal of ‘price stability’ actually means, but most observers have taken it to mean something close to a target *rate* of zero—or just above zero.¹²

With ‘level targeting,’ the central bank commits itself to making up for past inflation shortfalls or overshoots. Thus, if the BOJ had been targeting Japan’s GDP deflator, which has actually fallen by more than 15% since the mid-1990s, it would

have been forced long ago to generate enough inflation to recoup previous shortfalls, so as to have left the deflator not much different now than it was back then. With level targeting, deflation couldn’t have gone on for very long, in part because after a short bout of it, expectations of future inflation would have risen enough to reduce real interest rates and boost the price level. Market expectations themselves would have helped stabilise Japan’s price level.

Similarly, nominal GDP level targeting (along a 5% trend growth rate) in the United States before 2008 would have helped greatly reduce the severity of the Great Recession. One reason asset prices crashed in late 2008 is market participants (correctly) saw that the Fed had no plan to bring the US economy back to the old nominal GDP trend line. Current asset prices are strongly influenced by future expected asset prices, and hence, future expected nominal growth. As NGDP expectations deteriorated, asset prices crashed, and the balance sheets of highly leveraged banks such as Lehman Brothers deteriorated sharply. This dramatically worsened the financial crisis.

In the fall of 2008, the US government repeatedly tried to fix the crisis by injecting more funds into the financial system. But this merely treated the symptoms, not the cause. It failed to enact credible monetary policies to boost NGDP; as a result, the falling NGDP more than offset any gains from bank bailouts. It was like trying to bail water out of a boat without first plugging the leak.

Concluding remarks

Despite all the evidence in favour of the monetary theory of the Great Recession, most economists remain resistant to the argument. At the time, it seemed like the housing bust was the decisive shock. But the data suggest otherwise. Roughly 70% of the eventual decline in US housing construction occurred between January 2006 and April 2008, and yet unemployment merely nudged up from 4.7% to 4.9%. Only after NGDP started plunging in late 2008, and job losses spread to nearly all sectors of the economy, did the unemployment rate soar to double digits.

Others argue that the real problem was the financial crisis. Interestingly, most experts in the 1930s also believed that the Great Depression was caused by financial turmoil. Today we know better; it was caused by a policy of tight money that reduced US NGDP by more than 50%. After President Franklin Roosevelt devalued the dollar in the spring of 1933, output began rising rapidly immediately. The Wholesale Price Index rose by more than 20% over 12 months despite much of the banking system being shut down. Monetary policy is highly effective under even the worst conditions.

Certainly the housing and banking turmoil caused problems for the economy, but the NGDP shock was the much bigger problem. In mid-2008, economists already knew the subprime ‘bubble’ had burst, and yet the consensus forecast was for positive real GDP growth and moderate unemployment in 2009. What they didn’t know was that NGDP would plunge in late 2008. When someone suffering from pneumonia is shot in the leg, it makes no sense for the doctor to say: ‘No need to patch that bullet wound. The real problem is pneumonia.’ And for exactly the same reason, when a financial crisis is accompanied by falling NGDP, it makes no sense to argue the real problem is the financial crisis. In both the 1930s and today, the real problem was nominal.

Endnotes

- 1 Milton Friedman, ‘Reviving Japan,’ *Hoover Digest* 2 (30 April 1998).
- 2 Ben Bernanke, ‘Remarks by Governor Ben S. Bernanke,’ The Federal Reserve Bank of Dallas Conference on the Legacy of Milton and Rose Friedman’s *Free to Choose* (Dallas, Texas: 24 October 2003).
- 3 Ben Bernanke, ‘Some Thoughts on Monetary Policy in Japan,’ speech given to the Japan Society of Monetary Economics (31 May 2003).
- 4 Frederic Mishkin, *The Economics of Money, Banking and Financial Markets* (Prentice Hall, 2009), 610–611.
- 5 Ben Bernanke, ‘Remarks by Governor Ben S. Bernanke,’ as above.
- 6 NGDP growth fell from slightly over 5% in 1990–2008 to 1.36% in 2008:2–2011:2.
- 7 Lars Svensson was also a colleague of Ben Bernanke at Princeton University.
- 8 Lars Svensson, ‘What is Wrong with Taylor Rules? Using Judgment in Monetary Policy Through Targeting Rules,’ *Journal of Economic Literature* 41 (2003).
- 9 Ben Bernanke, ‘Japanese Monetary Policy: A Case of Self-Induced Paralysis?’ (Princeton University, 1999).
- 10 Ben Bernanke, ‘Some Thoughts on Monetary Policy in Japan,’ as above.
- 11 Gregory Mankiw and Ricardo Reis, ‘What Measures of Inflation Should a Central Bank Target?’ *Journal of the European Economic Association* 1:5 (December 2010).
- 12 More recently, the Japanese government raised the inflation target to 1%, and then 2%. The Japanese stock market rose by more than 50% in the six months after rumours of a 2% inflation target first appeared, and the yen depreciated sharply. Thus, no one can claim Japan was in any sort of ‘liquidity trap.’