Discussion of

Have We Underestimated the Probability of Hitting the Zero Lower Bound?

Chung, Laforte, Reifschneider, and Williams

By

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I'd like to thank the conference organizers for inviting me to provide some perspective on the topic of the paper. In particular, it is a pleasure to do so because I presented a paper entitled "Overcoming the Zero Bound on Interest Rate Policy" at the 1999 Federal Reserve System conference in Woodstock, Vermont, the meeting that this conference revisits.[1] Just before I was to begin that presentation Cathy Minehan, President of the Federal Reserve Bank of Boston, introduced me asking for a show-of-hands of those who thought the zero bound would be a problem in the foreseeable future. I was slightly embarrassed that only a minority of those present thought it would. Well, I feel vindicated today.

My discussion is in three parts.

First, I identify what I think are the main factors that contributed to the US economy hitting the zero interest bound in 2008.

The story I tell shows how developments in monetary policy, lender of last resort policy, computer and information technology, investment banking, and political economy conspired to drive short-term interest rates to zero in 2008. It is less a story of shocks than one of somewhat independent developments in each of these

[1] Goodfriend, M. 2000. "Overcoming the Zero Bound on Interest Rate Policy," *Journal of Money, Credit, and Banking*, November.

domains interacting in a negative way. It is not a story that one could have seen in advance. But in retrospect it seems compelling to me at least.

Second, I address the question: Did hitting the zero interest bound at the end of 2008 cause the Great Recession?

Third, I ask: Does the zero constraint on interest rate policy today inhibit the recovery from the Great Recession?

I argue that hitting the zero bound did not cause the Great Recession; and that the zero bound *need not* become a constraint on the recovery either, although it might. I elaborate at the conclusion of my discussion.

The story begins with the stabilization of inflation achieved by the Volcker Fed in the early 1980s secured by the Greenspan Fed in the 1990s. The stabilization ended go and stop monetary policy and thereby produced two of the longest business expansions in post-war US history. During the Great Inflation period, rising inflation brought a premature end to business expansions. Inflation has not done so since. The Great Moderation was coined to reflect that fact.

Should we have expected the stabilization of inflation to produce the end of cycles? The answer clearly is no. Think about life expectancy. Medical science increased life expectancy by finding cures for diseases that used to kill people at 40 or 50 years old. Now we're living to 80 and beyond. A consequence of increased life expectancy is that people are afflicted by diseases today they never lived long enough to experience before.

Something similar has happened in business cycles. We've learned to cure the business cycle of inflation that shortened business expansions. Consequently, we are observing things in business expansions rarely seen on such a scale in the post-war US, namely, extreme asset price fluctuations---in equity markets in the late 1990s and in housing in the 2000s. Many of us thought that inflation stabilization would end go-stop and extend business expansions. We shouldn't be surprised that cycles are now exposed to other disease-like problems. Asset markets have more room to run now, and more scope to overreach and fluctuate.

Moving on, other factors compound the volatility in asset markets. Information technology disseminates news instantly around the world. A common approach to finance theory is employed everywhere to process news. Huge pools of private funds are poised to move at a moment's notice. Not only does inflation

stabilization give markets more room to run, markets run much more flexibly and more violently than ever before.

Moving on again, consider central bank lender of last resort policy. Walter Bagehot's lender of last resort rule—lend freely against good collateral at a high rate—was good public policy advice in the 19th century because the Bank of England was a private institution. The Bank did not have access to public funds, nor could its earnings be appropriated by the public sector. Hence, the Bank had an incentive to lend only when it could support the banking system without a subsidy. It was in the Bank's interest to provide last resort lending services to the banking system in times of panic in return for monopoly privileges accorded the Bank by the government.

In contrast, modern central banks like the Federal Reserve are tied to government fiscal authorities. Seigniorage from the monopoly on currency and reserve creation is transferred to the government. More important is the fact that modern governments have access to enormous tax revenues that can potentially backstop central bank credit policy. A modern central bank transfers all seigniorage profits to the government and can count on government backing for its lending in times of crisis. Those facts distort modern last resort lending incentives. A modern central bank such as the Fed has an incentive to lend on excessively liberal terms because lending costs the Fed nothing and not lending might risk a financial panic.

Excessively liberal central bank lines of credit make short-term capital more inclined to move in the direction of favorable yield differentials irrespective of the risk involved, with the idea that central bank credit could finance a quick withdrawal.

Liberal lender of last resort behavior helped to encourage the enormous creation of short-term repo liabilities in the shadow banking system that proved so fragile in the credit turmoil. Thus, we add to the mix political economy considerations and the inadequacy of Bagehot's last resort lending rule in the modern American context.

The last element in the mix that I want to highlight is a mistake made by investment banks in creating securitized products. Historically, the housing and mortgage markets in the US were largely segmented. Regional housing prices and defaults had never been much correlated in the US.

In the run up to the credit turmoil investment banks diversified securitized mortgages geographically to exploit the historical lack of regional correlation in order to lower the overall risk of their securitized products. However, attempting to exploit the historical lack of correlation on such a large scale actually created correlation where there was little beforehand. Hence, securitized mortgage products became much less diversified and much riskier than the bankers or most others realized.

This mistake is reminiscent of one made by central banks in the 1960s. The attempt to exploit the negative historical Phillips curve correlation between unemployment and inflation to bring unemployment down permanently by elevating inflation destroyed the very correlation itself. Unemployment actually became positively correlated with inflation.

There are, of course, other familiar factors that helped to create conditions that eventually drove short-interest rates to zero. I mention the ones above because they have been overlooked, which helps to explain why the credit turmoil and the subsequent hitting of the zero bound was deemed unlikely beforehand.

This takes me to mid-2008 and the question: Did the hitting of the zero interest bound at the end of the year cause the Great Recession?

It is clear that it did not. The Great Recession was the result of a roughly 5 percentage point increase in the US saving rate that occurred in the wake of the financial panic in September and October of 2008. That increase in saving is reflected in the roughly 5 percentage point increase in unemployment that has persisted since then. The panic was in large part due to the lack of clarity in the boundary of fiscal responsibilities for support of the financial system between the Fed and the Congress.[2] Here, too, political economy played a role in driving short-term interest rates to the zero bound.

This brings me to my second and last question: Does the zero bound inhibit the recovery from the Great Recession?

My answer is that it *need not* if the Fed takes steps to create a framework within which monetary policy has the capacity to act decisively at the zero bound to secure credibility against both deflation and inflation.

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[2] Goodfriend, M. 2011."Central Banking in the Credit Turmoil: An Assessment of Federal Reserve Practice," *Journal of Monetary Economics*, January, forthcoming.

The operational imperative is this: The Fed must explain that an aggressive expansion of bank reserves could work against deflation without creating inflation, so that lenders don't demand an inflation premium in long-term interest rates.

The recovery from the Great Recession cannot progress unless the Fed stabilizes prices against both inflation and deflation.

At a meeting of the Shadow Open Market Committee earlier this week I suggested that a framework for monetary policy at the zero interest bound should have: 1) an explicit inflation objective, 2) a bank reserves policy instrument, 3) a description of the mechanics by which the Fed can manage broad liquidity to prevent deflation, and 4) cooperation from the fiscal authorities to enlarge the Fed's surplus capital account so that it has the financial independence to pay interest on reserves to exit from the zero bound to fight inflation, without first shrinking its balance sheet.[3]

Although the zero interest bound need not inhibit the recovery from the Great Recession, it might do so if the Fed fails to set up a credible monetary policy framework against both inflation and deflation. Monetary policy framed as I describe would be flexible to act against unemployment--but *only by justifying policy actions to fight unemployment against a commitment stabilize inflation and inflation expectations within the inflation target.*

The zero interest bound complicates the management of monetary policy—but it doesn't make monetary policy impotent. The Fed can circumvent the problem by creating and announcing a policy framework at the zero bound that conveys a sense of *follow through* for its policy actions.

If monetary policy is seen to be immobilized or ineffective at the zero bound, there is potential for a big problem beyond the risks to inflation or deflation, and employment. If the public believes that monetary policy is ineffective a *policy vacuum* is created that is likely to be filled by counterproductive fiscal initiatives such as protectionist trade policies.

More generally, politicians have an incentive to fill a policy vacuum by *targeting* government spending to particular regions, sectors, or classes of individuals hurt by the recession. Targeted spending can be seen to help a particular group. Unseen

[3] Goodfriend, M. "Managing Monetary Policy at the Zero Interest Bound," at a Symposium of the Shadow Open Market Committee, October 12, 2010. Go to shadowfed.org.

is spending that would otherwise be undertaken by taxpayers but is *not*, for fear of higher future taxes. The combined result is a net negative for the economy as a whole.