tlouisfed.org/publications/es/article/9490) [[[back to text](https://www.stlouisfed.org#3##3)]]
4. See Reinhart, Carmen M.; and Rogoff, Kenneth S. This Time Is Different: Eight Centuries of Financial Folly . Princeton University Press, 2009. [. Princeton University Press, 2009. [[back to text](https://www.stlouisfed.org#4##4)]]

- **October 4, 2012**. Presentation. "Price Level Targeting: The Fed Has It About Right," (bullardeconomicclubofmemphisoct42012finalpdf) *Economic Club of Memphis*, Memphis, Tennessee.
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St. Louis Fed's Bullard Discusses Price Level Targeting, Nominal GDP Targeting, Too Much Debt

MEMPHIS, Tenn. – Federal Reserve Bank of St. Louis President James Bullard gave remarks Thursday night on ["Price Level Targeting: The Fed Has It About Right"](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullardeconomicclubofmemphisoct42012final.pdf) at the Economic Club of Memphis.at the Economic Club of Memphis.

During his presentation, Bullard discussed the large shock to the U.S. economy in 2008-2009 and what should have happened if monetary policy reacted in just the right way to the shock. In Bullard's view what should have happened, in fact, is what actually happened. Given that "price level targeting" can be the optimal policy according to some leading theories, he said that one possible monetary policy response was for the Federal Open Market Committee (FOMC) to maintain the price level on its established path. "The FOMC has in fact essentially behaved as if it was price level targeting. In this sense, policy since 2008 looks close to optimal," he said, calling this “a singular achievement of recent monetary policy.”

Bullard also discussed the aftermath of the large shock to the economy. “As the dust has settled since 2008, it has become more and more apparent that U.S. real GDP is growing along a different path than the bubble-induced, pre-crisis path,” he said. He noted this is consistent with key findings of Carmen Reinhart and Kenneth Rogoff, who analyzed financial crises over the past 800 years and concluded that post-financial crisis economies grow more slowly.

Bullard said that the Reinhart-Rogoff effect has implications for future monetary policy. For example, “Attempting to target nominal GDP without adjustment for the Reinhart-Rogoff effect could be a policy disaster,” he said.

In light of too much debt in the economy, Bullard noted that alternative theories of optimal policy include the idea that surprise inflation is a way to partially default on debt. However, “That type of policy choice would likely impair U.S. credit markets into the distant future,” he said.

Price Level Targeting and the Actual Price Level

In looking closer at price level targeting, Bullard cited a leading theory that has been extensively analyzed by Michael Woodford and co-authors. Bullard stated that the main idea in the theory is that prices are “sticky” and therefore do not adjust immediately to changes in supply and demand conditions. He noted that optimal monetary policy corrects for this deficiency. “When the economy is hit by a shock, the optimal policy returns the price level back to its previous path.” Thus, he said that the behavior of the aggregate price level might be viewed as a “signature” of optimal monetary policy.

The advice from Woodford’s model, Bullard said, is that policymakers should take care to keep the price level on an established path when a large shock hits the economy. Indeed, this basic advice seems to have been implemented in the U.S., he stated, noting that the current U.S. price level is not far from the path established during the mid-1990s. “This could be interpreted as ‘monetary policy has done exactly what it was supposed to do in response to the large shock,'" he said. Bullard explained that the FOMC simply kept inflation close to 2 percent even in the face of the large shock, rather than explicitly stating that maintaining the price level path was an ultimate goal.

The Reinhart-Rogoff Effect and Nominal GDP Targeting

Bullard said that some shocks may be so large and so unusual that they cause especially severe damage to the economy. To that end, Reinhart and Rogoff showed that the aftermath of major financial crises tends to be marked by many years of slower-than-normal growth. Bullard noted that this seems to have happened in the U.S. "Before 2007, growth was likely artificially high due to the housing bubble. After 2009, growth has likely been slowed by deleveraging," he said.

Bullard then discussed the implications of the Reinhart-Rogoff effect for nominal GDP targeting. "Nominal GDP includes both the price level and real GDP in one aggregate; it does not separate the two," he explained. "The aggregate price level seems to be right about on target. Real GDP, on the other hand, seems to have been markedly influenced by the Reinhart-Rogoff effect," he said, observing that real GDP has grown slowly in recent years.

In fact, simply comparing nominal GDP with its 1990-2008 trend might lead one to conclude that U.S. monetary policy has been far off track—that is, way too tight—in recent years, Bullard said. However, "The one variable the Fed can control in the medium and long term, the aggregate price level, is exactly on track," he stated. "The problem is the failure to adjust nominal GDP for the Reinhart-Rogoff effect." After adjusting appropriately for the Reinhart-Rogoff effect, he noted, nominal GDP is also about on target.

"Attempts to push nominal GDP higher would push the price level off its path, violating the signature of optimal monetary policy," Bullard said.

The Problem of Too Much Debt

Bullard noted that while monetary policy is supposed to "fix" the "sticky price" distortion in Woodford's model by keeping the price level on its path in the face of disturbances, relying only on that model to try to understand the current U.S. situation might not be wise. “The actual U.S. economy seems to have a very different problem: too much debt,” he said.

Bullard said that inflation is sometimes seen as a way to partially default on existing nominal debts; if actual inflation is higher than anticipated, the debtor ends up paying less to the lender in real terms. In this scenario, he said, “The partial default would occur against savers, mostly older U.S. households, and against foreign creditors.”

Such a policy would not be without future costs, Bullard emphasized. “A partial default today through higher inflation would be paid for via higher inflation premiums in future borrowing,” he said. “Creditors would want to protect themselves against the unpredictable central bank that might surprise them with a burst of inflation. Nominal interest rates would be higher than otherwise into the distant future.”

Thus, “it is unlikely that partial default through inflation is good policy,” even in models where there can be “too much debt,” Bullard said. “This type of policy would likely impair U.S. credit markets for many years,” he emphasized.

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- **September 20, 2012**. Presentation. "A Singular Achievement of Recent Monetary Policy," (bullardnotredame20september2012finalpdf) *Theodore and Rita Combs Distinguished Lecture Series in Economics*, University of Notre Dame.
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