

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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**St. Louis Fed's Bullard Discusses Price Level Targeting and Nominal GDP Targeting**

SOUTH BEND, Ind. – Federal Reserve Bank of St. Louis President James Bullard discussed [“A Singular Achievement of Recent Monetary Policy”](<https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullardnotredame20september2012final.pdf>) on Thursday as part of the Theodore and Rita Combs Distinguished Lecture Series in Economics at the University of Notre Dame. on Thursday as part of the Theodore and Rita Combs Distinguished Lecture Series in Economics at the University of Notre Dame.

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. Given that “price level targeting” can be the optimal policy according to some leading theories, Bullard said that one possibility is that the Federal Open Market Committee (FOMC) should have maintained 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 last 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, given that some have called for switching to a nominal GDP target. “Attempting to target nominal GDP without adjustment for the Reinhart-Rogoff effect could be an unmitigated disaster,” 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 his 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 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 said, 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 said 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

Bullard stated 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 noted that some have advocated that current U.S. monetary policy should switch to a nominal GDP target. “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, stating 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 said. “The problem is the failure to adjust nominal GDP for the Reinhart-Rogoff effect.” After adjusting appropriately for the Reinhart-Rogoff effect, nominal GDP is about on target as well.

Bullard discussed his work with Stefano Eusepi on the consequences for monetary policy of understating a productivity slowdown. Research by Athanasios Orphanides documents that this is what happened in the 1970s. Bullard said, “We found that it would take policymakers several years to learn that their policies were inappropriate; in the meantime, about 300 basis points of unintended inflation would be created.”

He concluded, “The consequences of naïve NGDP targeting, without appropriate adjustment, might be more severe today.”

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### **President Bullard Presents "A Singular Achievement of Recent Monetary Policy"**

September 20, 2012

During the University of Notre Dame's Theodore and Rita Combs Distinguished Lecture Series in Economics, St. Louis Fed President James Bullard discussed price level targeting and nominal GDP targeting in the aftermath of the financial crisis. Following his presentation, he answered questions from the audience.

[Presentation (pdf)](<https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullardnotredam>