

recovery during 2009. Economists have yet to develop macroeconomic models with financial sectors adequately detailed to explore the channels through which quantitative easing boosts economic activity. But quantitative easing has a risk—if offsetting policy actions are not taken in a timely fashion, the increased monetary base will fuel an undesirably large acceleration of credit and, in turn, undesirably large increases in inflation. An important part of the mechanism must be stability of inflation expectations. Credible commitment to maintaining low future inflation provides a central-bank policymaker with the flexibility to double or triple the central bank's balance sheet while not unhinging inflation expectations.

Endnotes

1. Anderson, Richard; Gascon, Charles; and Liu, Yang. "Doubling Your Monetary Base and Surviving: Some International Evidence." Forthcoming, Federal Reserve Bank of St. Louis *Review*. [[\[back to text\]\(https://www.stlouisfed.org#1##1\)](#)]]

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- **December 4, 2009.** Speech. ["Three Lessons for Monetary Policy from the Panic of 2008."](#) ([bullardphiladelphiadec2009policyforum_finalpdf](#)) delivered at *The Philadelphia Fed Policy Forum*. [Press Release](#) | [Related news articles](#).
Related article in Federal Reserve Bank of St. Louis *Review* ([bullardpdf](#)), May/June 2010, 92(3), pp. 155-64.

St. Louis Fed's Bullard: Three Lessons for Monetary Policy from the Panic of 2008

PHILADELPHIA — In remarks Friday at the Federal Reserve Bank of Philadelphia's annual Policy Forum, St. Louis Fed President James Bullard outlined three lessons learned from 2008's financial crisis and

recommended that policymakers keep these lessons in mind for future monetary policy.

“There are lessons here that should be heeded,” Bullard said. “First, the lender of last resort function has proven far more flexible and more powerful than previously believed. Second, the asset purchase program has shown that an active stabilization program is possible with the policy rate at zero. And third, the issue of asset price ‘bubbles’ is a difficult one for monetary policy and may require new and innovative analysis.”

Bullard presented his comments in a panel discussion on “Policy Lessons from the Economic and Financial Crisis,” along with economists John Taylor of Stanford University and N. Gregory Mankiw of Harvard University. ([View slides from Bullard’s presentation](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullardphiladelphiadec2009policyforum_final.pdf) .).)

Lesson One: The Lender of Last Resort – On a Grand Scale

The development and implementation of a wide array of lending programs in 2007 and 2008 were designed to improve market functioning during the crisis.

“Central banks traditionally lend extensively in a crisis—this is the ‘lender of last resort’ function of monetary policy,” Bullard said. “The liquidity facilities were intended to improve market functioning. Some may have worked better than others; so, careful evaluation of these programs is an important topic for current research.”

If financial markets continue to improve, these programs will wind down naturally. However, Bullard expressed concern that the crisis may have unintentionally set up expectations of future intervention.

“The lesson is that these programs were far larger and more varied than what could have been anticipated before the crisis,” he said. “The effectiveness of these programs should now be carefully evaluated, and the central banking research community needs to think much more carefully about the ramifications of the lender-of-last-resort policy.”

Lesson Two: Monetary Policy by Different Means

Another lesson learned from the 2008 financial crisis: Quantitative easing can substitute for policy rate easing after the zero bound is encountered.

“The Fed is very capable of conducting stabilization policy when policy rates are near zero,” said Bullard. “The asset purchase program substituted for additional easing that could not be done through the policy rate,” he said. “The program has been regarded as successful in further easing monetary conditions after the zero bound was encountered.”

Bullard emphasized, however, that “quantitative policy should be conducted in a manner analogous to interest rate policy. This means adjusting the policy to incoming information on the economy.” For example, “if reasonably encouraging information on the economy emerges, the FOMC could consider removing some monetary accommodation through asset sales,” Bullard said. “If the economy performs poorly, then the FOMC could consider additional asset purchases.”

The FOMC lowered its policy rate to near zero in December 2008. It started the asset purchase program in January 2009 and has announced it will complete a total purchase of \$1.725 trillion of asset-backed securities by the end of the first quarter 2010.

If the policy rate remains near zero, “it would be natural for the FOMC to continue to adjust the asset purchase program going forward,” Bullard said. “This would allow monetary policy to remain active, responding to shocks, during the period of near-zero interest rates.”

Lesson Three: Asset Pricing and Monetary Policy

The third lesson is that “asset price bubbles are a very serious issue for monetary policy,” Bullard said. “This issue has been debated extensively over the past 15 years, but the debate will now intensify.”

“The main problem is that it is hard to see what was ‘wrong’ with previous policy, given conventional ideas about what policy is trying to accomplish.”

As examples, he pointed to two bubbles in recent history, the tech bubble of the 1990s and the housing bubble of the 2000s. During this time, unemployment hit lows of 3.8 percent in 2000, and 4.4 percent in 2007. Inflation was low and stable through this period.

“If the policy was too low for too long in the 1990s and the 2000s, why didn’t we see more inflation?” Bullard asked. “Yet, without an increase in inflation, asset price misalignments seem to have caused significant problems for the macroeconomy.”

“This may mean that monetary policy should put more weight on asset prices going forward,” he said. “We need better analysis of policy issues with respect to bubbles. “

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