



## A Model of Monetary Policy Shocks for Financial Crises and Normal Conditions

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Deteriorating economic conditions in late 2008 led the Federal Reserve to lower the target federal funds rate to near zero, inject liquidity into the financial system through novel facilities, and engage in large scale asset purchases. The combination of conventional and unconventional policy measures prevents using the effective federal funds rate to assess the effects of monetary policy beyond 2008. This paper develops an approach to identify the effects of monetary policy shocks in such instances. We employ a newly created broad monetary aggregate to elicit the effects of monetary policy shocks both prior to and after 2008. Our model produces plausible responses to monetary policy shocks free from price, output, and liquidity puzzles that plague other approaches. It also produces a series of monetary policy shocks which aligns well with major changes in the Fed's asset purchase programs.

JEL Classification: E3; E4; E5

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### Related Research

- Christiano, Lawrence J., Martin Eichenbaum, and Charles L. Evans. "Monetary policy shocks: What have we learned and to what end?." *Handbook of macroeconomics* 1 (1999): 65-148.
- Belongia, Michael T., and Peter N. Ireland. "Interest rates and money in the measurement of monetary policy." *Journal of Business & Economic Statistics* 33.2 (2015): 255-269.

## Additional Files

- [Code Files](#)
  - [Appendix](#)
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## Author



### A. Lee Smith

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Andrew Lee Smith is a Senior Vice President and Economist at the Federal Reserve Bank of Kansas City. In this role, Lee has oversight of macroeconomic research and serves as an advisor on monetary policy matters. Lee's research has focused on the effects of expanding and unwinding the Federal Reserve's balance sheet, the impact of forward guidance on financial markets and the economy, and, more generally, how central bank communication can influence expectations and economic conditions. Prior to joining the Bank in 2014, Lee received a Ph.D. in economics from the University of Kansas. He also holds a B.A. in economics and mathematics from Drury University in Springfield, Missouri.

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