Research Working Papers

Uncertainty Shocks in a Model of Effective Demand

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Can increased uncertainty about the future cause a contraction in output and its components?

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Can increased uncertainty about the future cause a contraction in output and its components? An identified uncertainty shock in the data causes significant declines in output, consumption, investment, and hours worked. Standard general-equilibrium models with flexible prices cannot reproduce this comovement. However, uncertainty shocks can easily generate comovement with countercyclical markups through sticky prices. Monetary policy plays a key role in offsetting the negative impact of uncertainty shocks during normal times. Higher uncertainty has even more negative effects if monetary policy can no longer perform its usual stabilizing function because of the zero lower bound. We calibrate our uncertainty shock process using fluctuations in implied stock market volatility and show that the model with nominal price rigidity is consistent with empirical evidence from a structural vector autoregression. We argue that increased uncertainty about the future likely played a role in worsening the Great Recession.

JEL Classification: E32, E52

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Related Research

- Basu, Susanto, and Brent Bundick. 2015. "Endogenous Volatility at the Zero Lower Bound: Implications for Stabilization Policy." Federal Reserve Bank of Kansas City, working paper no. 15-1.
- Fernández-Villaverde, Jesús, Pablo Guerrón-Quintana, Keith Kuester, and Juan Rubio-Ramrez. 2012. "Fiscal Volatility Shocks and Economic Activity." Federal Reserve Bank of Philadelphia, working paper no. 11-32R.

- Bloom, Nicholas, Max Floetotto, Nir Jaimovich, Itay Saporta-Eksten, and Stephen J. Terry. "Really Uncertain Business Cycles." National Bureau of Economic Research, No. w18245, available at 10.3386/w18245.

Additional Files

Data and Code Files **(2016)**

Data and Code Files **(Updated 2022)**

Appendix

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Brent Bundick is a Vice President and Economist in the Economic Research Department of the Federal Reserve Bank of Kansas City. In that role, he conducts research on the macroeconomy and serves as an advisor to the Bank's leadership on monetary policy and macroeconomic issues. He rejoined the Bank in 2014 after completing his Ph.D. in Economics from Boston College. Prior to graduate school, Brent worked in the Department as a Research Associate and Assistant Economist. He also holds a M.S. in Mathematics and Statistics from the University of Missouri – Kansas City and a B.A. in Economics and Mathematics from the College of William and Mary. Brent's research has examined the effects of uncertainty on the macroeconomy and how changes in central bank communication affect inflation, labor markets, and the broader economy.