

What Have We Learned since the Financial Crisis?

BY KARTIK ATHREYA

The financial crisis of 2007-2008 and the ensuing recession raised important questions for policymakers and researchers alike. In the 10 years since, research by economists has helped improve our understanding of financial markets, labor markets, economic shocks, and policy responses and the interactions among them. (Many of these developments are nicely summarized in the Summer 2018 issue of the *Journal of Economic Perspectives*.) I'd like to share with you some of the ways that researchers at the Richmond Fed and elsewhere in the Federal Reserve System are contributing to this work.

One feature of the financial crisis was the sudden large-scale withdrawal of funds from large financial institutions, most famously Lehman Brothers. Some observers have likened these withdrawals to the classic bank runs of the 19th and early 20th century. Research on how to prevent such rapid liquidations can help make both the financial system and the real economy more stable.

To that end, Bruno Sultanum of the Richmond Fed, David Andolfatto of the St. Louis Fed, and Ed Nosal of the Atlanta Fed have proposed creating a new type of financial instrument to help detect runs. This instrument creates an incentive for investors to signal to financial institutions when they believe a run is imminent. In theory, this new instrument would give institutions the necessary information to take actions such as temporarily suspending payments and, ideally, prevent runs from happening.

Understanding the labor market — the market most important to most of us — was also a focus for policymakers and economists in the immediate aftermath of the crisis. Millions of workers who lost their jobs during the recession sought new positions, but the labor market recovery took a long time compared to past downturns. Research by Andreas Hornstein of the Richmond Fed, Marianna Kudlyak of the San Francisco Fed, and Fabian Lange of McGill University provides an account of this fact: Not all job seekers transition from unemployment to employment at the same rate. Depending on their circumstances, job seekers face different probabilities of returning to work. Using this information, Hornstein, Kudlyak, and Lange constructed an alternative measure of unemployment called the Non-Employment Index. Tools like this help policymakers better understand phenomena observed during the Great Recession, such as the elevated long-term unemployment rates and slow labor market recovery.

Another key aspect of the Great Recession was the apparent transmission of shocks in some sectors of the economy (mortgage finance and housing) to the economy as a whole. To understand how such transmission occurs, Pierre-Daniel Sarte of the Richmond Fed along

with Lorenzo Caliendo of Yale University, Esteban Rossi-Hansberg of Princeton University, and Fernando Parro of Johns Hopkins University modeled these types of linkages across the United States. Sectors tend to be located across different regions; Sarte, Caliendo, Rossi-Hansberg, and Parro showed that understanding the regional and sectoral characteristics of the economy is essential to understanding how shocks affect the overall economy.

Fed researchers have also improved the tools available to policymakers and have advanced our understanding of the effects of policy. This work is crucial because the fiscal and monetary policy responses to the financial crisis and subsequent recession were large but neither their costs nor their benefits are fully understood. Richmond Fed economist Christian Matthes and Fabio Canova of the BI Norwegian Business School have presented new solutions to problems arising in macroeconomic models used to formulate advice for policymakers. This helps to ensure that researchers and policymakers alike are working with the best available model of the economy.

As for understanding the effect of policy, in work with Regis Barnichon of the San Francisco Fed, Matthes found that monetary policy has a larger effect on unemployment when it is contractionary than when it is expansionary, and the same is true for fiscal policy. Policymakers aware of these potential asymmetries can make more informed decisions about how best to respond to downturns such as the Great Recession.

A final strand of work I want to mention is also aimed at improving policy evaluation, this time by allowing for much greater differences across households in economic models, especially in their income and wealth. These new models are known as Heterogeneous Agent New Keynesian, or "HANK." Along with other leading macroeconomists, Richmond Fed economists Felipe Schwartzman and Marios Karabarbounis and their co-authors have analyzed and used HANK models to help us better understand how both fiscal and monetary policy work by allowing us to selectively incorporate real-world features such as credit constraints, illiquid wealth, and uninsurable risks.

These are just a few examples of how work by Richmond Fed economists has helped improve our understanding of the economy over the last decade. As we get further away from the financial crisis of 2007-2008, it is important to continue to push the research frontier using existing tools and also improve our toolkit if we want to be prepared to face the next crisis — or, ideally, avoid it altogether. **EF**

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