

FEDERAL RESERVE BANK OF KANSAS CITY

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*Monetary Policy at the Zero Lower Bound:  
Revelations from the FOMC's Summary  
of Economic Projections*

*By George A. Kahn and Andrew Palmer*

In 2012, the Federal Open Market Committee (FOMC) added the federal funds rate to its quarterly Summary of Economic Projections (SEP). Since then, FOMC participants have repeatedly projected the funds rate would rise in conjunction with projected increases in inflation and declines in unemployment. However, the federal funds rate remained at its effective lower bound until December 2015.

Kahn and Palmer use the SEP to assess the relationship between projections for the target federal funds rate and projections for inflation and unemployment. They find a systematic relationship that is generally consistent with the FOMC's actual policy responses before the zero lower bound period. They also find that the repeated projections of liftoff from the effective lower bound were not realized due largely to unexpectedly low inflation.

*The Lasting Damage from the Financial Crisis  
to U.S. Productivity*

*By Michael Redmond and Willem Van Zandweghe*

The financial crisis and recession of 2007–09 left deep scars on the U.S. economy. Total factor productivity, a key source of long-run output growth, declined sharply during the crisis and has remained below its pre-crisis level. Tight credit conditions may have contributed to productivity's decline. During the crisis, widespread fear and uncertainty drove lenders to raise interest rates and lend more cautiously. As a result, firms faced reduced access to credit, potentially preventing them from investing in innovation.

Redmond and Van Zandweghe examine the relationship between credit conditions and total factor productivity and find the financial crisis altered their usual relationship. During normal times, productivity growth fluctuates over the business cycle largely unaffected by credit conditions. But during the crisis, distressed credit markets significantly dampened productivity growth, leaving total factor productivity on a lower trajectory as the economy began to recover.

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## *Data Breach Notification Laws*

*By Richard J. Sullivan and Jesse Leigh Maniff*

Data breaches have recently worsened in the United States, prompting concerns about a rise in identity theft. To help protect consumers, 47 states have enacted laws requiring breached organizations to both disclose breaches to the public and notify consumers whose data were exposed. In theory, these notification laws serve two purposes important to public policy: they incentivize organizations to protect sensitive data, and they allow individuals whose records were exposed to react quickly to mitigate or prevent damage.

Prior research suggests these laws do lead to an overall decline in identity theft. However, the specific provisions within notification laws differ significantly across states, and some may be more effective than others in deterring identity theft. Sullivan and Maniff study these provisions over time to determine their potential effects on identity theft. They find five provisions in state laws associated with less identity theft and three provisions associated with more identity theft.

*Federal Reserve Bank of Kansas City  
Research Working Papers*

A list of research working papers published by the Federal Reserve Bank of Kansas City over the past five years appears annually in the First Quarter *Economic Review*. To print copies of working papers dating from 1998 and abstracts from 1995, visit the bank's website at [www.KansasCityFed.org](http://www.KansasCityFed.org). To order earlier working papers, please send your name and address, along with the number of any paper you wish to receive, to: Public Affairs, Federal Reserve Bank of Kansas City, 1 Memorial Drive, Kansas City, Missouri 64198.

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