UVA-GEM-0182
Rev. Aug. 29, 2022

Policy Responses to Modern Economic Crises

In March 2020, Jay Powell, Federal Reserve (Fed) chair, faced a daunting prospect that only a few months prior seemed like a remote possibility: massive expansion of the Fed's balance sheet. Over the past five years, the economy had experienced steady economic growth, permitting the Fed to reduce its balance sheet (see **Exhibit 1** for the monetary base). The Fed's economists expected the trend to continue.[1] But the rapidly spreading global coronavirus pandemic (known as COVID-19) had rendered moot all prior forecasts. In addition to the health crisis, the United States—and the world—faced the prospect of another economic crisis—just over 10 years after emerging from the largest recession since the Great Depression. How should Powell and his counterparts who ran fiscal policy respond to the crisis? And to what extent could the policy experiments implemented in response to the Great Recession of 2008 guide the monetary and fiscal policy interventions in response to the pandemic crisis?

Global Financial Crisis

As is characteristic of economic crises, the global financial crisis of 2008 came as a surprise that forced policymakers to adapt to evolving events. Mortgage delinquencies accelerated, and indices of national home prices started to decline in early 2007 (**Exhibit 2**). Lenders such as HSBC experienced large losses, and some filed for bankruptcy. Despite the issues in the housing market, policymakers at first maintained an optimistic outlook. On March 17, Fed Chairman Ben Bernanke stated: "We believe the effect of the troubles in the subprime sector on the broader housing market will likely be limited, and we do not expect significant spillovers from the subprime market to the rest of the economy or to the financial system."[2]

Yet by August 7, signs of a wider credit crunch were emerging, and Bernanke's Fed began to cut the federal funds rate. Losses continued to pile up in the financial sector, and as credit seized up, the Fed continued to cut interest rates into 2008 (**Exhibit 3**).

The interest rate cuts were not sufficient to stem the tide of a financial crisis. Many lenders held mortgage-backed securities on their balance sheets, and declines in the values of these assets led to the collapse of three of the five big investment banks by the end of 2008. Other lenders grew increasingly worried that borrowers would not be able to repay their loans and slowed new loan issuance, which reinforced the effects of falling asset prices. As a consequence, borrowing and lending declined sharply (see **Exhibit 4** for the money multiplier), leading to the largest recession since the Great Depression.

[1] "Monetary Policy Report – February 2020," Board of Governors of the Federal Reserve System, February 2020, https://www.federalreserve.gov/monetarypolicy/2020-02-mpr-summary.htm (accessed Sept. 15, 2020).

[2] Ben S. Bernanke, "The Subprime Mortgage Market," Board of Governors of the Federal Reserve System, May 17, 2007, https://www.federalreserve.gov/newsevents/speech/bernanke20070517a.htm (accessed Sept. 15, 2020).

Policymakers were faced with a dilemma. A massive program of monetary and fiscal stimulus would be necessary to mitigate the crisis. But the scale of stimulus that was needed would undoubtedly end up helping many of the actors—banks and insurance companies—that had underestimated risk in the housing market in the first place and in doing so contributed to the evolving crisis. If the government let large banks and insurance companies fail, it would send a signal that firms would be accountable (now and in the future) for the downside of risks they took. But in the absence of wide-scale government intervention, many Americans who had not engaged in excessive risk-taking would suffer the consequences. Should the government bail out those that contributed to the crisis in hopes of saving the economy, or should it avoid large-scale interventions?

Policy Response[3]

Memories of the Great Depression were influential in determining the ultimate policy path. Bernanke had studied the Great Depression in detail, and was acutely aware of how severe the crisis could become if the government failed to act. On March 16, 2008, the Federal Open Market Committee (FOMC) held an emergency meeting regarding the imminent collapse of Bear Stearns, a large investment bank. The FOMC pushed the limits of its legal authority by agreeing to finance the purchase of Bear Stearns by JPMorgan Chase & Co. Six months later, another investment bank, Lehman Brothers, likewise faced imminent collapse, but this time the Fed was unable or unwilling to provide a bailout. Stock markets reeled (**Exhibit 5**) and unemployment continued to skyrocket (**Exhibit 6**).

In response, Bernanke spearheaded an unprecedented expansion of the monetary base (**Exhibit 1**). In November, the Fed announced plans to purchase up to $600 billion in financial assets. The program—referred to as quantitative easing (QE) by market participants—was unprecedented in its scale and its scope. Prior to the financial crises, the Fed had held primarily short-term Treasury debt. But under QE, the Fed would purchase mortgage-related assets (e.g., mortgage-backed securities and the debt of mortgage lenders) in addition to Treasury debt. In early 2009, the Fed would expand QE to include over $1 trillion in mortgage-related assets and over $300 billion in longer-term Treasury debt.

While many viewed the unprecedented monetary expansion as necessary, others worried that it would lead to excessive inflation (see **Exhibit 7** for various inflation measures). Jeffrey Lacker, president of the Federal Reserve Bank of Richmond, summarized these concerns in a speech to the Charlotte Chamber of Commerce:[4]

> The perception of inflation risk could be particularly pertinent to the current recovery, given the massive and unprecedented expansion in bank reserves that has occurred, and the widespread market commentary expressing uncertainty over whether the Federal Reserve is willing and able to promptly reverse that expansion…If we hope to keep inflation in check, we cannot be paralyzed by patches of lingering weakness, which could persist well into the recovery.

Meanwhile, the US Treasury administered the Troubled Asset Relief Program (TARP). Created by the Emergency Economic Stabilization Act of 2008, TARP authorized the Treasury to purchase up to $700 billion of "troubled assets," which were defined to include "financial instrument that the Secretary, after consultation with the Chairman of the Board of Governors of the Federal Reserve System, determines the purchase of which is necessary to promote financial market stability."[5] TARP did not involve the direct purchase of goods or services—and therefore did not directly increase GDP—but its objective was to indirectly increase GDP by stabilizing asset markets and easing the flow of credit.

[3] This section includes excerpts from Daniel Murphy, "Jerome Powell: Navigating a New Course?," UVA-GEM-0165 (Charlottesville, VA: Darden Business Publishing, 2018).
[4] "Uh-Oh: One by One, The Fed's Inflation Hawks Are Speaking Up," *Business Insider*, December 2, 2009, https://www.businessinsider.com/feds-lacker-joins-philadelphias-plossner-in-fed-excess-liquidity-dissent-panel-2009-12 (accessed Sept. 15, 2020).
[5] "The Troubled Asset Relief Program: Report on Transactions through December 31, 2008," Congressional Budget Office, January 16, 2009, https://www.cbo.gov/publication/41754 (accessed Sept. 15, 2020).

In addition to programs directed at credit markets, the government also engaged in direct fiscal stimulus. A month after taking office in January 2009, newly elected US president Barack Obama signed the American Recovery and Reinvestment Act (ARRA), a stimulus package of approximately $800 billion that included a combination of tax cuts and direct spending. The ARRA, which was among the largest stimulus packages in American history, was highly controversial. Some prominent economists, including Paul Krugman, argued that the stimulus measure was too small relative to the $2.9 trillion output gap.[6] Meanwhile, around 200 economists, including Nobel laureates, signed a full-page advertisement in the *Wall Street Journal* and *New York Times* opposing the stimulus measure.[7] One subsequent study of ARRA estimated that it saved over two million jobs between 2009 and 2010, or approximately 1.6% of pre-ARRA nonfarm employment.[8] Another study estimated that the ARRA prevented a further 2% decline in GDP growth in 2009, but that its effects could have been larger had the bill focused more on direct spending.[9]

By 2010, the economy had emerged from the recession, perhaps due to the monetary and fiscal stimulus measures. But the recovery was tepid, and in 2011, the economy hit a soft patch. Had prior stimulus measures been counterproductive? Or would things have been much worse without them? In either case, by 2011, the ARRA stimulus was wearing off, and government spending stopped growing for the first time in decades, due primarily to the decline in defense spending associated with demilitarization in Iraq and Afghanistan (see **Exhibit 8** for direct measures of government spending and the overall US budget balance).

In response to slowing growth, Bernanke announced a second round of QE—QE2—in which the Fed would become the proud owner of another $600 billion in Treasury securities by the second quarter of 2011. By some estimates, the Fed had surpassed the People's Bank of China as the single largest holder of US Treasury securities. Then in September 2012, the Fed announced QE3: the Fed would increase its holdings of longer-term securities by about $85 billion per month.

The effect of these policies on the Fed's balance sheet was striking. In August 2008, the Fed's entire balance sheet totaled $895 billion. By mid-March 2015, the Fed owned almost double that in mortgage-backed securities alone ($1.74 trillion), as well as $2.46 trillion in Treasury bonds and notes, and it had a bloated balance sheet that approached $4.5 trillion.[10] Some were less than enamored with the Bernanke Fed's policies. Campbell Harvey, a leading finance professor, summarized results from a survey of CFOs:

> This is stark evidence that QE3 would be a wasted effort…The CFOs are saying that it is naïve for the Fed to think that dropping interest rates will spur investment in current economic conditions…The survey's bottom line is that the Fed has run out of bullets. The best thing they can do is to foster stability.[11]

Others, such as Eric Rosengren of the Federal Reserve Bank of Boston, wanted the Fed to do more to support the struggling US economy:

> Mr. Rosengren likened the economy to a swimmer treading water and getting nowhere. "That calls for a more substantive action than we've taken to date," he said. "We need a pro-growth monetary policy." Treading water, he added, was "not sufficient." Mr. Rosengren said the Fed should buy more mortgage-

[6] "Nobel Laureate Paul Krugman: Too Little Stimulus in Stimulus Plan," Knowledge @ Wharton, February 19, 2009, https://knowledge.wharton.upenn.edu/article/nobel-laureate-paul-krugman-too-little-stimulus-in-stimulus-plan/ (accessed Jun. 3, 2019).

[7] "With All Due Respect Mr. President, That Is Not True," Cato Institute, https://web.archive.org/web/20090203170743/http://cato.org/special/stimulus09/cato_stimulus.pdf (accessed Jun. 3, 2019).

[8] Daniel J. Wilson, "Fiscal Spending Jobs Multipliers: Evidence from the 2009 American Recovery and Reinvestment Act," *American Economic Journal: Economic Policy* 4, no. 3 (2012): 251–82.

[9] Gerald A. Carlino, "Did the Fiscal Stimulus Work?," Federal Reserve Bank of Philadelphia, Q1 2017, https://www.philadelphiafed.org/-/media/research-and-data/publications/economic-insights/2017/q1/eiq117_did-the-fiscal-stimulus-work.pdf?la=en (accessed Jun. 3, 2019).

[10] The size of composition of the Fed's balance sheet is readily available at http://www.federalreserve.gov/releases/h41/Current (accessed Mar. 23, 2015). Data for any week back to June 1996 are also available from that site.

[11] "CFOs: Hiring and Spending Plans Weaken, Fed Policy Viewed as Ineffective," Duke University Office of News & Communications news release, September 11, 2012, http://www.cfosurvey.org/12q4/PressRelease.pdf (accessed Apr. 3, 2015).