

OVERVIEW

I am very pleased to introduce this set of papers describing several of the monetary policy programs that the Federal Reserve developed to respond to the recent financial crisis. The Federal Reserve's response to the financial crisis that began in 2007 was extraordinary in several dimensions. The expansion of the Fed's balance sheet—initially to provide liquidity to financial institutions and markets and later to purchase long-term assets—was enormous. In addition, the programs included an unprecedented expansion of Fed counterparties, of the collateral eligible for borrowing from the Fed, and of the types of assets purchased for the Fed's portfolio.

The first two papers in this volume examine two of the Federal Reserve's innovative lender-of-last-resort (LOLR) facilities created during the crisis: Linda S. Goldberg, Craig Kennedy, and Jason Miu analyze the central bank dollar swap facilities (and the associated provision of U.S. dollar liquidity by foreign central banks), while Tobias Adrian, Karin Kimbrough, and Dina Marchioni consider the Commercial Paper Funding Facility (CPFF). These facilities, along with other crisis-related liquidity programs such as the Term Auction Facility, the Primary Dealer Credit Facility, the Term Securities Lending Facility, and the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility, allowed the Federal Reserve to provide LOLR funding to broad swaths of the financial system.¹ Collectively, they vastly expanded the types of financial institutions, the geographic location of

¹ See Armantier, Krieger, and McAndrews (2008), Adrian, Burke, and McAndrews (2009), Fleming, Hrung, and Keane (2009), and Duygan-Bump et al. (2010).

financial firms, and the classes of collateral eligible for borrowing from the Federal Reserve.

Lender of last resort is a—if not the—defining characteristic of central banking.² In normal times, the Federal Reserve is the LOLR only to depository institutions located in the United States through its standing discount window or primary credit facility. During the crisis, traditional discount window lending to banks was insufficient to stem contagion and liquidity runs in the financial system, particularly in funding markets and among financial institutions beyond traditional banking. Liquidity provided to banks was not distributed to the rest of the financial system because of balance-sheet constraints at the largest financial institutions and counterparty credit risk concerns. The central bank swap lines and the CPFF were designed to allow the Federal Reserve to make liquidity available to foreign banks outside the United States and to the commercial paper market, respectively.

While the new Fed facilities shared a common goal—to ease financial market conditions—the papers in this volume make clear that each facility was carefully designed to address the specific dislocations or liquidity problems in particular markets, and to do so in a way that ensured that the Federal Reserve's lending was appropriately secured. For example, the central bank swap lines directly addressed the excess demand for/shortage of U.S. dollar short-term funding outside the United States, while the CPFF was specifically designed to

² Many central banks, including the Federal Reserve, were created after financial crises in which private financial market participants were unable to provide liquidity necessary to maintain normal financial and banking functions.

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support term issuance of commercial paper when that market became distressed in the aftermath of the Lehman Brothers bankruptcy. Despite their different designs, the two facilities shared a couple of common traits. Both were structured to carefully manage counterparty risk and both were priced to be attractive facilities only during periods of market stress. This latter characteristic was important in allowing for an orderly winding down of the facilities over time.

In the volume's third paper, Joseph Gagnon, Matthew Raskin, Julie Remache, and Brian Sack discuss the implementation and impact of the Federal Reserve's large-scale asset purchase (LSAP) programs implemented through spring 2010. While the broad policy purpose of the LSAPs was also to ease financial conditions, the purchase programs were aimed at directly lowering the cost of credit to households and businesses rather than at easing funding conditions for financial intermediaries. By purchasing large quantities of agency debt, agency mortgage-backed securities (MBS), and U.S. Treasury securities, the programs aimed to directly reduce long-term interest rates and thus reduce the cost of borrowing. As such, the LSAPs posed different policy design and implementation issues, including the size and timing of purchases. While the purchase programs themselves were

temporary, their impact on asset prices (and on the Federal Reserve's balance sheet) has been more sustained. Indeed, the paper concludes that the purchases completed through spring 2010 lowered the ten-year term premium by 30 to 100 basis points. In addition, it finds that the purchases had even larger effects on long-term agency debt and agency MBS yields by improving market liquidity and removing assets with high prepayment risk from private portfolios.

The three papers discuss the policy intent of the liquidity programs and the asset purchases, how various elements of program design and implementation were chosen in order to achieve those policy goals, and the challenges inherent in the designs. The papers also provide an early read on the impact and policy effectiveness of each of the facilities. As such we hope that these studies can serve both as historical references on the structure, design, and implementation of these extraordinary programs and as preliminary assessments of the programs' contributions to alleviating market stresses and allowing the financial system to begin a long road back to its role in credit formation and intermediation. We also hope that researchers and central bankers will study and evaluate these policy programs in the coming years.

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