

## With Markets in Turmoil, Twelfth District Banks Relied on Discount Window for Funding in 2008

The Federal Reserve's discount window has long served as an important safety valve in the financial system, providing overnight loans to financial institutions to cover temporary changes in deposits and loan portfolios during the normal course of business and supplying liquidity to financial markets during systemic stress. Over the course of the current crisis, this role expanded beyond conventional boundaries when the Federal Reserve introduced new lending facilities through the discount window to provide liquidity and credit to dysfunctional markets. To supplement the new lending programs and further encourage borrowing from the discount window, the Federal Reserve also cut the discount rate, which is the primary credit rate charged to financial institutions for overnight loans.

The Term Auction Facility (TAF), introduced in December 2007 and expanded in 2008, is administered through the discount windows at all Reserve Banks. Through the auctions, depository institutions borrow from the Federal Reserve for a fixed term against the same collateral accepted by the discount window's primary credit program. The rate is determined at auction, subject to a minimum set by the Federal Reserve.

The Federal Reserve Bank of New York oversees the majority of the other discount window lending facilities that were introduced in 2008, such as the Term Securities Lending Facility, which provides liquidity in the U.S. Treasury and other securities markets, and the Commercial Paper Funding Facility, which provides liquidity to short-term funding markets for U.S. issuers of commercial paper.

Since January 2003, primary credit had been targeted at 100 basis points above the Federal Open Market Committee's (FOMC) target federal funds rate. As the financial picture weakened, the FOMC reduced the federal funds target eight times in 2008. The Federal Reserve also narrowed the primary credit spread above the federal funds rate target to  $\frac{1}{4}$  percentage point, resulting in a discount rate of .50 percent by year-end. Equally important, the Federal Reserve lifted the 30-day term limit for primary credit to 90 days.



### Credit and Risk Management

The Federal Reserve Bank of San Francisco's Credit and Risk Management staff oversee the discount window. The group nearly doubled in size from late 2007 through year-end 2008 to process the unprecedented volume of collateral pledges and loans and to monitor troubled institutions. Given the high volume, the group coordinated the on-site inspections of collateral, receipt of daily liquidity reports for troubled institutions, and review of collateral proposals, among other activities, with assistance from the Banking Supervision and Regulation and Legal departments.

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Following the introduction of TAF and the cut in the primary credit rate, activity skyrocketed at the Federal Reserve Bank of San Francisco's discount window in 2008. At the start of the year, the auctions offered \$30 billion with 28-day maturities. As credit markets tightened further in 2008, the auctions became a permanent fixture on a biweekly schedule, with the addition of 84-day maturity loans and an increase in the amount auctioned to \$150 billion.

During 2008, with no other stable source of funding available, many institutions in the Twelfth District turned to the discount

window. At the end of 2007, 190 institutions with relationships with the Twelfth District's discount window had pledged \$72.8 billion of collateral toward loans. Six months later, the number increased to 207 depository institutions with collateral pledges of \$98.8 billion. By the end of 2008, 305 institutions had established relationships with the District's discount window, pledging \$173.5 billion in collateral to support their liquidity needs.

During the year, as relationships and collateral pledges with the discount window rose, lending activity spiked. In 2007, the District's discount window originated 283 loans totaling \$3.6 billion, principally from the primary credit program. In the first half of 2008, following the cut in the primary credit rate and the expansion of the term limits for TAF, the number of loans more than tripled, with the discount window generating 903 loans totaling \$79.3 billion. The

latter part of year continued to set new records for the number and value of advances made. By year-end 2008, Twelfth District's discount window had extended 3,190 loans totaling \$389.3 billion, the highest loan volume in the Federal Reserve System.

The Twelfth District's discount window also monitored a significantly greater number of troubled institutions during the year as the crisis intensified. Consequently, staff implemented a broad range of traditional and innovative risk controls to manage credit risk exposure at each institution. For example, some banks with impaired capital levels were no longer eligible for TAF funds, long-term borrowing, and intraday overdraft ceilings. Additionally, certain banks were required to post transactions in real-time to their Federal Reserve accounts to ensure they monitored their balances throughout the day. ■

## San Francisco Fed Leads Early Rollout of Interest Payments on Bank Reserves

One rapid response to the financial crisis came from the San Francisco Fed's Statistics Division. With only three weeks of lead time, the Division implemented a new policy to pay interest on reserve balances depository institutions hold in accounts at the Federal Reserve. The change, which took effect in October 2008, provided the Federal Reserve with a tool designed to let it expand new lending facilities while achieving its federal funds interest rate target for monetary policy.

### ***What is the link between paying interest on bank reserves and monetary policy?***

Prior to the payment of interest on reserves, banks typically lent excess balances (above required reserves) in the overnight federal funds market to earn interest. By paying interest on bank reserves, the Fed now provides an incentive for institutions to hold these excess balances in reserve accounts at the Fed, and the interest rate paid on reserves tends to set a floor on the interest rate available in the funds market. Thus, the Fed may be able to maintain its monetary policy target rate for federal funds even as it expands excess reserves through new lending facilities.

Although the Financial Services Regulatory Relief Act of 2006 had already authorized interest payments, the change wasn't scheduled to begin until October 1, 2011. Congress approved the accelerated schedule with the passage the Emergency Economic Stabilization Act of 2008.

Banks are required to hold a portion of customer deposits in Federal Reserve accounts. As the manager of the computer system used by all Reserve Banks to calculate these reserve requirements, the Statistics Division led the integration of the new policy to pay interest on both required and excess reserve balances. San Francisco also serves as headquarters for the central bank's national Reserve Resource Center, which provided reserve administration expertise for the transition.

To meet the accelerated schedule, technical specialists within the Statistics Division modified one of the central bank's largest and most complex computer systems within a narrow window of just three weeks. Nearly 7,000 institutions—ranging from depository institutions and trusts to U.S. branches and agencies of foreign banks—became eligible to earn interest on their reserve balances.