Stigma and the Discount Window

BY RENEE COURTOIS HALTOM

One of the primary ways central banks can stabilize the financial system in times of distress is by acting as the "lender of last resort" to financial institutions when funding dries up. Banks that face a liquidity shortage may be unable to provide depositors with the funds they wish to withdraw. At an extreme, the bank could fail. Banks facing shortages can go the Fed's discount window, and that can help avoid unnecessary failures.

Yet banks aren't always willing to take the Fed up on this offer. During the recent financial crisis, for example, the Fed did everything it could to encourage bank borrowing, from easing lending terms to publicly urging banks to take loans if needed. But borrowing remained low in late 2007 despite severe liquidity shortages in the financial system.

A common explanation for the reluctance of banks to borrow from the Fed is a "stigma" attached to the discount window. This stigma is based on the notion that only a bank in financial trouble would go to the Fed over other, cheaper sources of funds. Banks are believed to fear that regulators, investors, or other banks will assume the worst if the bank is discovered to have borrowed from the Fed. There can be perfectly benign reasons for accessing the discount window: a bank that receives a large withdrawal too late in the day to locate a private lender, for example. The problem is that such stigma, if present, may hamper the Fed's ability to provide liquidity in a crisis.

Other institutions will not necessarily know when a bank borrows from the discount window. Banks may sometimes be able to figure out the identities of specific borrowers, but only the total amount of borrowing from each regional Federal Reserve district is made public; those data are published weekly in the Fed's H.4.1 release.

That's about to change. The Dodd-Frank financial reform legislation passed in the summer of 2010 requires the Fed to publicize the names of all banks that borrow from the discount window and the total amount borrowed, two years after that borrowing takes place. It is too soon to tell whether the certainty that discount window loans will be made public will further dissuade banks from borrowing in times of need.

In its early days, the discount window was a physical window located within each regional Federal Reserve Bank, as shown in this 1960s photo of the window inside the New York Fed.

PHOTOGRAPHY: CURATING SECTION, FEDERAL RESERVE BANK OF NEW YORK

Borrowing From Dad

Three types of loans are offered through the discount window. Stigma is usually discussed in the context of primary credit, which is available to healthy financial institutions. This is the Fed's principal means of adding liquidity to the banking system. At the height of the financial crisis in October 2008, the Fed granted a weekly average of $111 billion in primary credit, a record (the previous record was about $12 billion for the week of Sept. 11, 2001).

It is difficult to prove that stigma exists. Stigma would manifest itself through banks not borrowing from the Fed. However, it would be difficult to distinguish that from the fact that financial institutions usually have viable funding alternatives that are cheaper.

Banks rely most heavily on other banks for short-term funding through the federal funds market. Banks have to keep a certain amount of cash, known as reserves, on hand according to the Fed's reserve requirements, equal to 10 percent of total deposits in most cases. But since a bank's depositors withdraw their funds at will, the amount of reserves on hand fluctuates from day to day. There's an opportunity cost for holding "excess" reserves — banks could lend those funds out and earn interest — so banks generally try to minimize the amount they hold. (The Fed started paying interest on reserves in late 2008, which lessens that opportunity cost some.)

That's where the fed funds market comes in. Banks that have an excess supply of funds become lenders, and banks that need to fill a sudden shortfall become borrowers. Banks have existing legal agreements in place, and simply call each other up when they want to trade funds. That's why it wouldn't be difficult for other financial institutions to identify discount window borrowing, says Becky Snider, who oversees the Richmond Fed's discount window. "If an institution suddenly disappears from the fed funds market, other banks might assume, particularly if Richmond posts a large borrowing in that period, that they went to the Fed."

The Fed would much prefer that banks obtain funds from this private source. But banks are rational, and one would expect them to go to whichever funding source is cheapest. Prior to 2003, that was the discount window. The Fed kept the discount rate below the target fed funds rate and limited arbitrage by scrutinizing the banks that borrowed.

The Fed required all discount window borrowers to show that they had sought loans on the fed funds market first, and banks had to provide information on what business activities the loans would be funding. Perhaps as a result of the Fed's scrutiny, going to the discount window became associated with an inability to obtain funds from other banks.

"In my banking days, I always described it as being like borrowing from my father," said Fed Governor Elizabeth Duke in an early 2010 speech. Duke had a long career as a banker before being appointed to the Board of Governors in 2008. "I was always sure that at some point I would have to answer uncomfortable questions."

Evidence of Stigma

Since stigma is latent during times of more or less normal market functioning, when there are plenty of funding alternatives to the discount window, economic research that attempts to measure the quantitative impact of stigma has focused on unique events in financial markets. One example was around the turn of the millennium, when businesses of all types were worried that the date turnover would trigger a glitch in computer systems. As a preventative measure, many banks chose to hold extra reserves. The Fed met the added demand for liquidity by creating the Y2K Special Lending Facility. The SLF was specifically designed to sidestep stigma: Borrowers did not need to approach the fed funds market first, they weren't restricted in how the fund were used, and they didn't have to pay the funds back right away. The Fed encouraged banks to use the SLF without a fear that it would trigger fears of insolvency or intensified oversight on the part of the Fed.

Nonetheless, lending patterns through the SLF provided strong evidence of stigma, economist Craig Furfine of Northwestern University found in 2001. He applied an algorithm to confidential fed funds data to identify the total volume of fed funds loans compared to those through SLF. The results were striking: During one particular week in late 1999, SLF borrowing was $236 million, while borrowing through the fed funds market at rates *higher* than the SLF rate exceeded $1.5 billion, more than 6.5 times larger, he found. Banks were willing to pay a sometimes hefty premium for the ability to obtain funds from anyone but the Fed.

Stigma hadn't been given theoretical treatment until a 2010 model developed by Richmond Fed economists Huberto Ennis and John Weinberg. They show that it can be rational for banks to borrow elsewhere at higher rates if costly repercussions result from going to the discount window. In their model, a bank's ability to repay an overnight fed funds loan depends in part on its ability to resell the assets in its portfolio to investors. One reason a bank may go to the discount window is if other banks, perceiving those assets are distressed, refuse to lend at a reasonably low rate. Meanwhile, a bank's potential investors are unable to distinguish the reason for borrowing, but if they observe discount window borrowing, they can infer with a reasonably high probability that the cause was poor asset quality. Thus, borrowing from the discount window conveys a signal of financial distress to investors, and associated banks are able to resell their assets only at a discount.

Changes to Reduce Stigma

In 2003, the Fed made dramatic changes to its discount window practice in part to mitigate stigma. The discount rate was changed to a constant one-percentage point spread *above* the target fed funds rate, which removed the arbitrage opportunity between the discount and fed funds rates. This allowed the Fed to ease up on the regulatory scrutiny that accompanied discount window borrowing. Nowadays, provided a bank is in good financial condition and can post adequate collateral, discount window funds are lent on a "no questions asked" basis. To mark the change, the Fed publicly urged banks and other regulators to view occasional discount window borrowing as appropriate and unworrisome.

Nevertheless, evidence of stigma persists. Furfine revisited the issue after the switch. Though the Fed sets a target level for the fed funds rate and is generally able to achieve it through open market operations, the actual fed funds rate can fluctuate. In principle, fed funds transactions can trade at any rate, including above the discount rate. During the first three months of 2003, Furfine found, an average of more than 57 times more activity occurred in the fed funds market at rates equal to or higher than the discount rate.

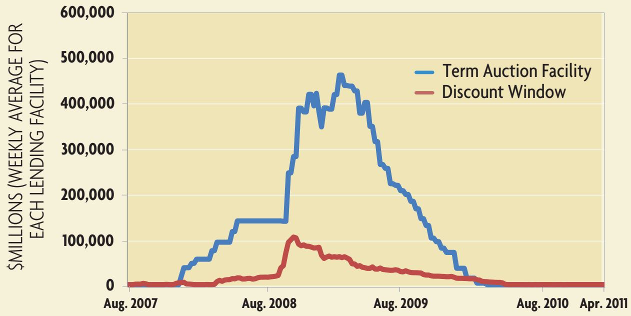
Since discount window borrowing is rare in normal times, markets are likely to view a bank's sudden willingness to borrow as a sign of weakness when the broader market is experiencing distress, argued Governor Duke in her February 2010 speech. "When uncertainty about the health of individual institutions or the industry as a whole increases, stigma intensifies as the market tries to identify the weaker players. The dilemma facing the Fed is that when discount window borrowing is most needed to keep credit flowing, it is most stigmatized."

Indeed, borrowing remained low as the financial crisis unfolded in the second half of 2007. The Fed reduced the spread between the discount and fed funds rates to one half of a percentage point in August 2007, and discount loan terms were extended from overnight to 30 days (eventually the rates and terms were loosened further). But few banks responded. Four of the nation's largest banks borrowed a combined total of more than $2 billion, but they stated publicly that is was a symbolic move meant to encourage small institutions facing liquidity shortages to borrow.

The Fed responded in December 2007 by creating an entirely new lending facility to get liquidity to the financial system. Like SLF, the Term Auction Facility (TAF) was designed specifically to get around the stigma problem. The key difference was that TAF funds were administered through auction. It worked like this: The Fed announced that it would lend a fixed amount of funds, and an unlimited number of banks could bid for up to 10 percent of that amount (a cap set to ensure the funds were evenly distributed). Funds were given to the highest bidders at the

Fed Lending During the Financial Crisis

Banks proved much more willing to borrow from the Term Auction Facility, which was specifically designed to sidestep the stigma problem that is believed to afflict the discount window.



SOURCE: Federal Reserve Board of Goverors H.4.1 Release (Factors Affecting Reserve Balances)

"stop out" rate — the rate whose associated bid exhausted the funds. Thus, the TAF guaranteed multiple borrowers, which reduced the likelihood that any one borrower would be identified and penalized by the market.

Despite the fact that discount window and TAF funds were in principle identical — even precisely the same institutions were eligible — TAF lending quickly dwarfed that of the discount window (see figure). During the 28 months that TAF was operational, more than 4,200 individual loans were granted through 60 auctions, providing more than $3.8 trillion in funds. The amount offered at each auction varied from $20 billion when the program was first launched to more than $150 billion during the worst days of the crisis.

There is no evidence that the market initially attached any stigma to TAF when it was launched, writes a group of researchers in a 2011 Federal Reserve Bank of New York Staff Report. They document that financial institutions were willing to pay an average premium of 37 basis points, and 150 after the failure of investment bank Lehman Brothers to borrow from TAF rather than the discount window. The fact that banks were repeatedly willing to pay more for TAF funds is interpreted by the authors as strong, quantitative evidence of stigma.

If one interprets all of that premium as being the result of stigma, then stigma cost banks an average of $5.5 million in interest per TAF auction during the summer of 2008, a period when the TAF rate was consistently above the discount rate — and $75 million in interest for the auction immediately following the failure of Lehman. It appears stigma has the potential to be quite costly for banks in times of greater liquidity needs.

What Will Happen After Dodd-Frank?

An outstanding question is how the financial crisis will affect stigma. Will it worsen it by forever associating Fed loans with financial turbulence? Or lessen it by making central bank loans more common, as is the case in other countries?

Adding a twist of uncertainty is the requirement under the Dodd-Frank law that discount window loans be published with a two-year lag. It is possible that the effects of publication will be different for stigma during "normal" times versus stigma during times of financial distress. There appears to be a clear difference between the two. As Governor Duke and the New York Fed's TAF study each suggest, financial turmoil seems to worsen stigma as uncertainty rises and banks struggle to identify weaker counterparties. Will loans being made public two years after the fact affect banks' willingness to borrow in a crisis? We may not know until the next financial panic.

Dodd-Frank was not the only recent mandate for the Fed to reveal discount window borrowing. Lawsuits filed under the Freedom of Information Act by the news organizations Bloomberg and Fox News sought to require the Fed to disclose discount window borrowing that occurred during the financial crisis — during April and May 2008 (around the failure of Bear Stearns), and from August 2007 through November 2008, respectively.

The Fed denied the requests under the argument that disclosure would dissuade banks from accessing the discount window. The U.S. Court of Appeals for the Second Circuit ruled against the Fed in the Bloomberg case, and in March of 2011, the Supreme Court denied the Fed's petition to hear that case. The Fed subsequently released the data. The lawsuits are the first of their kind leading to publication of discount window data, according to Alan Meltzer, a Fed historian at Carnegie Mellon University.

As for more normal times, whether stigma deters borrowing can come down to the culture of an individual bank, says Snider of the Richmond Fed. "There are two different groups: For some banks, no matter what, they will never come to the discount widow. Then you've got a group to which it appears to make sense, especially late in the day and when conditions are advantageous. To them, if we're going to publish the data in two years, that doesn't seem like a big deal." Still, she says, the Richmond Fed made efforts to make sure that each of the hundreds of depository institutions in the Fifth District which potentially have access to the discount window were aware of the coming change.

Ultimately, Snider says, "what banks should remember is that if a bank borrows from the discount window, that means it met the Fed's criteria for primary credit: It is a fundamentally healthy institution." **RF**

Readings

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