

Design Challenges for a Standing Repo Facility

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At its June meeting, the FOMC discussed opening a standing repo facility. Such a facility would allow eligible counterparties to receive cash loans from the Federal Reserve in the form of repos against government securities. (A repo is a provision of cash to a counterparty in exchange for securities, which is then unwound, typically the next day; economically, it functions as a secured loan.) The facility could serve three purposes: supporting the Fed's monetary policy by putting a ceiling on the federal funds rate; encouraging banks to hold smaller quantities of reserves and putting a ceiling on the repo rate. The minutes to the June FOMC indicate the Committee has made no decisions about the precise objective of the facility or its design.¹ Both those decisions will present difficult choices.

Set forth below is a discussion of how the facility could be designed to accomplish different objectives and of how those design choices can conflict.²

OBJECTIVE 1: PUTTING A CEILING ON THE FED FUNDS RATE

All major central banks provide a lending facility that is designed to cap or lessen upward spikes in the interest rate the central bank targets for monetary policy purposes. The Fed targets the federal funds rate, which is the interest rate on overnight unsecured onshore interbank loans. The Fed's lending facility for helping to control spikes in the fed funds rate is the primary credit facility, also known as "the discount window," which provides overnight loans to financially sound depository institutions (commercial banks, thrifts, and U.S. branches and agencies of foreign banks) at the primary credit rate, also known as "the discount rate."

One circumstance in which banks borrow from the primary credit facility is when there is a market-wide increase in the federal funds rate, often materializing at the end of the day. Such borrowing reflects market conditions and has nothing to do with the financial condition of the borrowing bank. Eligible collateral for discount window loans includes nearly all loans and securities that depository institutions are permitted to hold. The discount window loans are provided on a nearly "no-questions-asked" basis. In normal times, the discount rate is set well above market rates for interbank loans; it is currently 50 basis points above the top of the FOMC's target range for the federal funds rate. The combination of the elevated interest rate and the restriction to financially sound banks is intended to encourage banks to use the discount window infrequently. As required by Dodd-Frank, information on each discount window loan, including the identity of the borrower, is published with a two-year lag.

Unfortunately, there has always been a stigma associated with discount window loans, in large part because the discount window is not just a monetary policy tool that, in principle, caps spikes in the market-wide federal funds rate, it is also the vehicle through which the Fed provides emergency backstop funding to individual banks. That stigma has increased astronomically because of the public pillorying of banks that borrowed from the discount window, or accepted other forms of liquidity support, in the global financial crisis.

¹ The terms of a standing repo facility would be formally determined by the FOMC (as opposed to the Board of Governors) because the repos would be classified as open market operations. But tradition suggests that any decision to offer such a facility would be made by consensus among all FOMC participants, including the Board members and all the Reserve Bank Presidents.

² For additional discussion of how a standing repo facility would work, see two recent Federal Reserve Bank of St. Louis blog posts ([here](#) and [here](#)) by David Andolfatto and Jane Ihrig and "[Monetary Policy with Abundant Liquidity: A New Operating Framework for the Federal Reserve](#)" by Joe Gagnon and Brian Sack, January 2014, p.13. For more information on considerations the Fed navigated when designing the Primary Credit facility, see "Proposed Revision to the Federal Reserve's Discount Window Lending Programs," by Brian Madigan and Bill Nelson, Federal Reserve Bulletin, July 2002.

A standing repo facility could provide a more effective ceiling for the federal funds rate for several reasons, most of which address the stigma concern. The credit would be provided under Section 14 of the Federal Reserve Act, which authorizes monetary policy operations, rather than section 10B, which authorizes discount window advances. There is no stigma associated with repos done with broker-dealers for monetary policy, so perhaps that would also be true for repos done with banks at a standing facility. The transactions would be subject to the same two-year disclosure requirement as discount window loans, but they could be grouped with monetary policy transactions.

Stigma could also be reduced by the restriction to government securities as collateral (whereas discount window collateral can include loans and other kinds of bank-permissible securities). The facility would only provide cash for securities the Fed is authorized to purchase – essentially Treasury securities, Agency debt securities, and Agency mortgage-backed securities. It seems highly likely the Fed would restrict collateral to Treasury securities only. A bank that has Treasury securities available to secure a loan from the Fed is unlikely to be a bank experiencing liquidity pressures.

To put a ceiling on the federal funds rate, the set of counterparties eligible to use the facility would need to include the large commercial banks that would borrow in size late in the day if the fed funds market were tight. However, any facility that was available to big banks would also have to be available to small banks on the same terms. Not only do some Reserve Bank districts only have small banks, but providing a service to large banks and not small banks would be politically problematic. In addition, there would most likely have to be financial soundness criteria for counterparties because the Fed would not be comfortable promising *ex-ante* to lend to a weak bank.

Because banks of all sizes must be eligible, the choice of interest rate penalty involves tradeoffs. A narrow spread over market rates would be sufficient to discourage too-frequent use of the facility, at least by those banks that have access as borrowers to the federal funds market – that is, larger banks. A narrow spread would also help reduce stigma – a bank that borrows from a facility with a high-interest rate is signaling that it cannot get funds more cheaply elsewhere. But the alternative cost of funds is higher for small banks, which do not have direct access to money markets, than large banks, so to prevent small banks from using the facility as a routine, attractive source of funds requires a higher spread. For example, Fed analysis when designing the primary credit facility indicated a spread of 100 basis points might be necessary, albeit for loans against a much broader range of collateral.

There are other possibilities, but each has its own problems. The Fed could only open the facility if the fed funds rate rose above a certain level, which would emphasize that borrowing does not reflect individual bank weakness and would also allow for a narrower spread, but such an approach would add complexity and hinder the task of educating bankers and supervisors about the usefulness of the new facility. Moreover, as discussed below, a facility that is not always available would be unlikely to accomplish the Fed's objective of encouraging banks to hold smaller quantities of reserves. Increasing borrowing costs with use or implementing borrowing quotas would similarly make availability uncertain and so also be inconsistent with reducing the demand for reserves.

OBJECTIVE 2: REDUCING THE DEMAND FOR RESERVES

The FOMC has decided that it will operate monetary policy using a floor system—that is, by providing an overabundance of reserves—but it has found that banks are currently demanding more reserves than previously expected. As a result, the Fed needs to maintain a larger balance sheet than it had expected to keep reserves in excess supply. The larger the Fed's balance sheet, the larger the costs of implementing policy using a floor system – interest payments to banks on their reserves are higher, risk of loss is higher, the potential for political interference into what the Fed purchases is greater. Moreover, in so far as there are political constraints on just how large the Fed's balance sheet can get if additional quantitative easing becomes necessary, these higher costs are encountered sooner if the Fed's balance sheet starts out larger.³

A standing repo facility could reduce banks' demand for reserves. That demand depends importantly on the substitutability between Treasury securities and reserves. The relative advantage of reserves is that they can be used to make payments of unlimited size instantly, while converting a large amount of Treasuries into cash takes time, with the

³ For more information on monetary policy implementation regimes and reasons for the elevated demand for reserves see "Understanding the Fed's implementation framework debate"

cash not necessarily available the same day if the repo or Treasury markets for same-day settlement have closed. If the Fed had a standing repo facility for banks that charged only a small spread above market rates and was open until the close of Fedwire (the Fed's large-value payments system), Treasuries and reserves would become nearly perfect substitutes, at least in terms of liquidity.

For this purpose, the counterparties would need to be the large commercial banks that account for most of the demand for reserves in aggregate, but again, if open to large banks the facility would have to be open to all depository institutions. Ideally, the interest rate spread would be narrow so that Treasuries and reserves are close substitutes, but because banks would be thinking about using the facility only in contingencies, a wider spread might also work. Because certain availability would be crucial, use of the facility could not be rationed.

The issue of financial soundness criteria for counterparties presents potentially the greatest challenge. To convince banks to hold Treasuries rather than reserves to meet stressful circumstances, the facility must be available on demand to all banks that have Treasuries, not just those that are financially sound. Historically, the Fed has been unwilling to provide a discount window lending facility at which a troubled bank could receive credit on demand with no limit other than the availability of collateral, even if that collateral were Treasuries. On the other hand, the Fed does not have financial soundness criteria for primary dealers, the large financial institutions with which it conducts market operations (including repos). The Fed may need to accept that for the repo facility to reduce banks' demand for reserves, the facility would have to be available to all solvent institutions.

OBJECTIVE 3: PUTTING A CEILING ON THE REPO RATE

A standing repo facility could also dampen upward spikes in the repo rate. For example, on the final business day of last year, the repo rate increased 5 percentage points in a short period as investors that needed to finance Treasury securities encountered broker-dealers seeking to shrink their balance sheets for regulatory reasons. Had the facility been available, and if the institutions that scrambled for funding had been counterparties to the facility, they could have turned to the facility and the increase in the repo rate would have been constrained.

To accomplish this objective, the facility would need to include as counterparties the major participants in the repo market including the primary dealers (the large broker-dealers that are the Fed's counterparties in open market operations). As illustrated in the year-end experience, in which balance sheet constraints made primary dealers unwilling to intermediate, to be effective, the set of counterparties would also have to include major repo borrowers, including Japanese banks and hedge funds (REITs as well if the facility accepted agency debt and agency MBS).

If access were limited to major repo market participants, the spread of the standing repo rate over market rates could be quite narrow while still discouraging over-frequent use of the facility. However, it would be difficult to restrict access to the repo facility at a narrow spread to only large active repo borrowers. Smaller commercial banks could and probably would ask why they must pay more to borrow from the discount window against Treasury collateral than large nonbank financial institutions must pay at the repo facility. Consequently, the facility would again likely have to include all depository institutions as counterparties and therefore have a relatively wide spread.

CONCLUSION

Factoring in all the constraints, it is possible to back out the feasible characteristics of a standing repo facility and therefore the objectives it could achieve. The facility would need to include, at a minimum, all depository institutions as counterparties. With such a broad set of counterparties, the spread over the target fed funds rate range would have to be relatively wide, probably at least 25 basis points. A quasi no-questions asked facility for all depository institutions that qualify for primary credit, with that spread, could potentially provide a more effective ceiling on the fed funds rate than primary credit does.

If the facility were restricted to depository institutions, provided repo funding at roughly a 25 basis point spread over the federal funds rate, and there were no financial soundness criteria and essentially guaranteed availability, the facility could also help reduce the demand for reserve balances

If access to the facility were expanded to include major nonbank repo borrowers, the facility could help limit upward spikes in the repo rate, but only major spikes that exceeded a 25 basis point (or similar) spread.

Accomplishing any of the objectives requires the facility to have little or no stigma attached to it. As noted, the facility could reduce stigma because the transactions would be packaged as repos, not discount window loans, and the collateral would be restricted to government securities. But the task of reducing stigma will be made more difficult by the likely need to set the standing facility rate at a penalty relative to market rates.⁴

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⁴ The Fed may also be considering providing banks the option to have end-of-day account overdrafts automatically converted into discount window loans as another means to reduce stigma. Currently, a bank must ask its Reserve Bank for a discount window loan. If a bank ends the day with a negative balance in its Fed account, but also with collateral pledged to the discount window that is sufficient to cover the overdraft, the bank would nevertheless incur an overnight overdraft and pay a fee; it would not receive a discount window loan unless it requests one. By simplifying the process for, and increasing the certainty of, receiving a loan, the automatic conversion of an end-of-day overdraft into a loan could both reduce stigma and reduce the demand for reserves.

The automatic conversion of an overdraft into a discount window loan could also help address one of the challenges of keeping Fedwire open continuously, as the Fed recently proposed doing: If a bank ends up with an overdraft after markets close, the discount window is the only available funding option.