

## Reverse Repo

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Financial institutions engage in a wide variety of transactions to fund their daily operations. Two common transactions are the repurchase agreement, or “repo” for short, and its relative, the “reverse repo.”

Despite its somewhat sinister-sounding name, a repo is essentially just a short-term loan. In a repo, the initiating party sells securities to another party but agrees to repurchase those securities later at a higher price. In this way, the buyer lends funds to the seller, and the securities act as collateral. The difference between the securities’ initial price and their repurchase price is the interest paid on the loan. A “reverse repo” is simply the mirror of the same transaction. In a reverse repo, the initiator purchases securities and agrees to sell them back for a positive return at a later date. Financial institutions typically use repos to obtain short-term funding.

As short-term funding instruments, repos were at the heart of the financial crisis of 2007-2008. Financial institutions rely on being able to roll over their repos frequently — often daily. But the housing market crash and subsequent financial turmoil called into question the true value of many of the securities underlying repos. Financial institutions were suddenly less willing to risk being stuck holding securities of questionable value in the event that the borrower on the other end of their agreement declared bankruptcy. As a result, the repo market temporarily collapsed, and many institutions suddenly found themselves short of needed funding for their operations.

In addition to their use by financial institutions, repos and reverse repos are traditional tools used by the Fed to conduct monetary policy. When the Fed temporarily buys securities from primary dealers (firms that deal in U.S. government securities directly with the Fed) it injects reserves into the financial system. Conversely, when the Fed sells securities with an agreement to repurchase — a reverse repo transaction from the perspective of the market — it temporarily drains reserves from the system.

Since the crisis, reverse repos have taken on new importance as a monetary policy tool. This reflects limitations of the Fed’s usual tools in today’s environment. Traditionally, the Fed conducted monetary policy by altering its target for the federal funds rate — the rate banks charge each other to borrow overnight. The Fed supported the new target with a corresponding change in the discount rate (the rate at which it lends to banks) and open market operations like repos and reverse repos. Before the crisis, these operations were

typically small — usually between \$2 billion and \$8 billion.

This traditional approach relied on the fact that banks had little incentive to hold more reserves at the Fed than required because, until late 2008, the Fed did not pay banks anything to hold excess reserves. Rather than hold excess reserves with the Fed and earn zero interest, banks generally preferred to lend those reserves in the fed funds market and earn the fed funds rate. Huberto Ennis of the Richmond Fed and Todd Keister of Rutgers University explained in a 2008 article how the Fed could effect a change in the fed funds rate in this environment through various combinations of open market operations (changes in the quantity of reserves) and changes in the discount rate. But the Fed’s large-scale asset purchases during and after the Great Recession have swelled the level of excess reserves in the banking system from \$2 billion to over \$2 trillion. (See “Are Large Excess Reserves a Problem for the Fed?” p. 40.) Following the traditional approach would require selling (at least) hundreds of billions of dollars of securities, which the Fed does not want to do.

As a result, the Fed has said it will rely on two different tools to steer interest rates. First and foremost is paying interest on excess reserves, which the Fed started doing in 2008. Raising the interest rate on excess reserves gives banks more incentive to hold them, putting upward pressure on short-term market interest rates, including the fed funds rate. But since not all financial institutions hold reserves with the Fed, it will also employ overnight reverse repos with an expanded set of counterparties as a complementary tool to maintain its federal funds rate target. If it is willing to conduct large enough reverse repo operations, the Fed can also effectively set the minimum rate for the overnight repo market, since no other institution will pay less than what the Fed is offering. This allows the Fed to influence what financial institutions charge each other for overnight repo lending, similar to how it traditionally influenced the overnight federal funds rate through open market operations. The Fed has already experimented with using reverse repos in this way.

Still, the Fed plans to rely primarily on interest on reserves rather than reverse repos to achieve its interest rate targets. Fed officials have noted that the Fed’s large influence on the repo market could have unforeseen long-term consequences for how financial institutions borrow and lend in overnight markets. In order to avoid that, the Fed plans to use reverse repos only as long as necessary. **EF**

