

Repo Rate Spikes: A Puzzle for Policymakers

BY KARTIK ATHREYA

On Sept. 17, the overnight interest rate on collateralized loans for institutional borrowers — known as the “repo rate” — spiked as high as 9 percent at one point during the trading day and ended up averaging 5.25 percent over the entire day. The size of the spike was extremely unusual, because in recent years the repo rate has usually stayed close to the rate the Fed pays banks on the reserves they hold in excess of the required minimum, and that rate was only 2.1 percent.

During the previous year, the spread between repo rates (as summarized by the secured overnight funding rate, or SOFR) and the interest rate on excess reserves (IOER) had become more volatile as the Fed continued to reverse its quantitative easing program and reduce the supply of banking system reserves. Yet, the spread between the two rates had exceeded 0.25 percentage points only five times during the period and had never exceeded 0.75 percentage points. At 3.15 percentage points on Sept. 17, the spread was more than four times its maximum during the previous year.

Initial explanations for the repo rate spike focused on the simultaneous effects of a Treasury securities auction and the due date for a quarterly corporate tax payment. Both of these events involved large payments from the private sector to the U.S. Treasury’s general account at the Fed. Such transactions, if not offset by Fed open market operations or discount window lending, reduce banking system reserves at the Fed and in turn tend to reduce the banking system’s supply of funds to the repo market. The Treasury auction had the further effect of increasing the demand for funds in the repo market by securities dealers looking to finance Treasury securities purchases. This source of increased demand, combined with the two supply influences, amounted to a “trifecta,” according to one portfolio manager.

But the occurrence of the trifecta is not a fully satisfying explanation for the rate spike. After all, Treasury auctions and tax days are hardly rare events, and the Fed regularly anticipates them and attempts to offset their effects by supplying the market with additional liquidity. Moreover, the Fed currently operates under an “abundant reserves” regime. This means the Fed attempts to consistently supply the banking system with more reserves than the minimum that banks would demand based on the prevailing short-term interest rates.

Under this regime, one might expect banks to readily lend funds in the repo market whenever the repo rate exceeds the rate they receive on excess reserves. It appears to be a simple arbitrage opportunity, with a gain equal to the SOFR-IOER spread. But this did not happen on Sept. 17, or at least it did not happen enough to keep the

repo rate from spiking. For some reason, the supply of bank funding to the repo market had become somewhat inelastic.

Several hypotheses have been advanced to explain this puzzle. One idea is that intramarket frictions may have been increased by the Fed’s policy of paying interest on excess reserves. Prior to the financial crisis, no interest had been paid on reserves, and so the opportunity cost of not lending in the repo market was the full repo rate. In that environment, banks had an incentive to trade frequently. Under the current system, however, the opportunity cost is merely the SOFR-IOER spread. Since this has generally been quite low, banks appear to have economized on their overnight lending capacity.

Complementary explanations have highlighted changes in bank risk management practices. The financial crisis underscored many potential risks of the repo market — a topic analyzed by Richmond Fed economist Huberto Ennis in his 2011 *Economic Quarterly* article “Strategic Behavior in the Tri-Party Repo Market.” Heightened perceptions of repo market risk, combined with postcrisis bank liquidity regulations, may have created a disincentive for banks to lend in the repo market.

The concept of abundant reserves is another part of the puzzle. On one hand, the concept is extremely difficult to quantify, even at one point in time. And on the other hand, it appears to be a moving target. Market commentators have hypothesized that banks’ comfort with high reserve levels has increased in a ratchet-like manner during the postcrisis period.

Market commentators have proposed a number of corrective measures. Some have advocated moving the Treasury’s general accounts at the Fed to private banks, which would lessen the effect of Treasury auctions and tax payment days on bank reserves. Others have argued that the Fed could make the repo market more robust by creating a standing repo facility and allowing for regular, but modest, repo rate volatility. Much of the discussion has focused on bank liquidity practices. Fed Vice Chair Randal Quarles, for example, has called for further study of whether banks’ internal liquidity stress tests have created too great a preference for central bank reserves over other high-quality liquid assets.

Given the abundance of policy proposals that have been advanced, one thing seems clear — the events of last September have already stimulated a great deal of productive thinking among analysts and policymakers. **EF**

Kartik Athreya is executive vice president and director of research at the Federal Reserve Bank of Richmond.