Investment Insights

Issues in the Repo Market, Explained



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Highlights

- Recent turmoil in the repo markets has led the Federal Reserve to take steps to boost liquidity to the financial system.
- Issues arose as bank reserves became squeezed, resulting in too many financial institutions chasing too few available funds.
- In our view, the Fed should continue to expand its balance sheet a bit more in order to safeguard well-functioning repo markets.

In mid-September, the "repo" market made headlines after a significant spike in certain short-term interest rates. "Repo" is short for repurchase agreement and is a transaction in which a financial institution sells securities (often Treasuries) to another institution, agreeing to repurchase the securities the next day at cost plus one day's worth of interest. This allows the first institution to increase its cash holdings. The repo market is used primarily by banks, money-market funds, and other large financial institutions, and historically has been an efficient way to allocate short-term funds where needed across the financial system.

Why did this sharp move in rates matter? In this *Investment Insights*, we explain why this issue surfaced in the first place, and how the Federal Reserve's (Fed's) ensuing responses may have broader implications for financial markets.

Leading Up to the Spike

To understand the turmoil, we must first look at the Fed's balance sheet. The Fed's assets are primarily U.S. Treasuries (bonds, notes, and bills), and mortgage-backed securities (MBS). The small remaining assets include items like gold, foreign currencies, repurchase agreements, and loans, but we will ignore all but the Treasuries and MBS for this illustration.

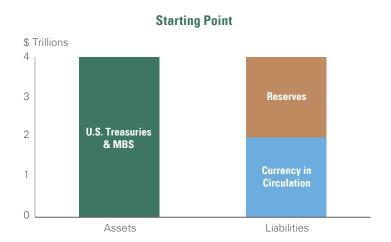
Beginning in 2014, the Fed halted asset purchases and froze its balance sheet at approximately \$4.5 trillion — these assets had accumulated as a part of its "quantitative easing" (QE) program after the 2008-2009 global financial crisis. In 2017, the Fed then began to normalize its balance sheet, allowing maturing securities to roll off without reinvesting the proceeds. This allowed the Fed's overall assets to begin to decline.

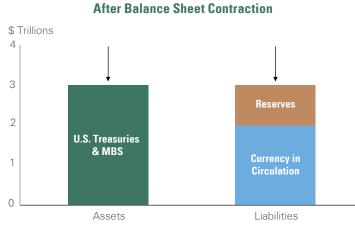
Turning to the liability side of the balance sheet, the two primary components are 1) reserves and 2) currency in circulation. There are other small liability components, but we are ignoring them to simplify this explanation. Currency in circulation is a relatively stable liability that grows gradually and steadily over time. Reserves, on the other hand, are sensitive to the level of overall assets, so when the asset side of the balance sheet changes, the effect on reserves often is immediate and one-for-one (Exhibit 1).

What are reserves? Regulations stipulate that U.S. banks must maintain a certain level of liquidity — and they are evaluated periodically to make sure they are meeting reserve requirements. If they are not holding an adequate amount, they can borrow overnight money in the repo markets to make sure the requirement is met. Twenty-four of the largest U.S. banks, the "primary dealers," deal directly with the Fed to manage their reserves, while medium- and smaller-sized banks do repo transactions both with the primary dealers and with each other.

Exhibit 1: How Changes to the Fed's Balance Sheet Affect Reserves

Key Takeaway: Reserves are sensitive to the level of overall assets; when assets shrink, the effect on reserves often is immediate and one-for-one.





Source: Bessemer Trust

Reserves Get Squeezed

Since the financial crisis, the largest banks have been more conservative in their lending practices and are generally "over-reserved." Risk-based regulations have made them more reluctant to lend into the banking system than they once were, creating a transmission problem in repo markets as liquidity does not flow as easily as it once did between primary dealers and smaller banks.

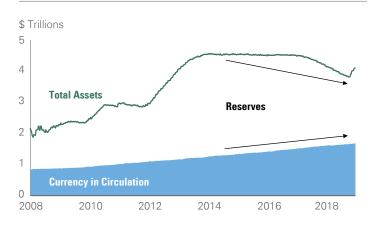
Once the Fed decided stop its QE program and hold its assets steady, currency in circulation continued to grow, gradually reducing the level of reserves. When the Fed began allowing its assets to shrink, the combination of growing currency in circulation and declining assets caused reserves to fall quickly, creating a squeeze (Exhibit 2).

This means there were too many financial institutions chasing too few available funds, so repo became scarce and the cost of overnight repo borrowing skyrocketed to a rate of 10% versus what had been the Fed's target rate of

about 2%. The Fed was forced to step in and serve as the lender of last resort. It did so by injecting \$75 billion worth of liquidity into the market through its own hastily prepared repo

Exhibit 2: Federal Reserve Total Assets and Currency in Circulation

Key Takeaway: The recent combination of growth in currency in circulation and decline in assets caused a squeeze in reserves.



As of November 13, 2019. Source: Bloomberg, Federal Reserve facility. Cash demand was particularly high that week due to a combination of debt settlements and tax payments.

Since the spike in the repo rate, the Fed has worked to improve liquidity in the repo market by increasing its overnight repo volume as well as offering "term" repo, which have maturities of up to two weeks. The Fed has also begun buying Treasury bills to the tune of about \$60 billion per month. While this technically expands the balance sheet and influences short-term interest rates, the Fed has been hesitant to call it quantitative easing — instead stating it is allowing the balance sheet to "organically grow." We would note that, unlike the previous QE periods, the Fed is exclusively purchasing short-term securities for now.

Investment Implications

In our view, it is beneficial for the Fed to continue expanding its balance sheet a bit more to avoid further liquidity constraints. Well-functioning repo markets are an important part of a healthy financial system, and while the Fed seemed to be caught off guard by the September squeeze, it has worked to address the issue. Once the Fed's balance-sheet assets grow to the point that reserves are adequate to transmit efficiently throughout the financial system, the balance sheet would safely be able to grow organically in tandem with currency in circulation in order to maintain a constant level of reserves. As always, we keep a careful eye on all Fed actions in order to understand the implications for client portfolios.

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November 21, 2019

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