

ECONOMIC VIEWPOINT

Is the Federal Reserve's Balance Sheet Increase Quantitative Easing?

On October 11, the Federal Reserve Bank of New York announced that it would buy US\$60B in Treasury bills per month at least into the second quarter of 2020. The official objective of this measure is to add liquidity to the money market to ensure its smooth operation and help keep the effective interest rate on federal funds within its target range. That said, this will increase the size of the Federal Reserve's (Fed) balance sheet significantly, which will have the appearance of a quantitative easing program.

The Problem with the Effective Federal Funds Rate

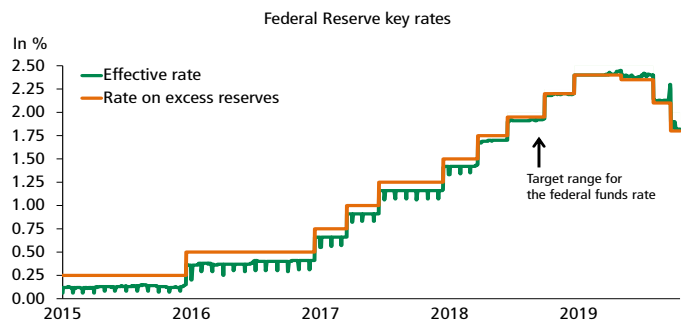
The Fed manages its monetary policy by setting a target range for the federal funds rate. Ideally, the Fed would like to see this rate stabilize in the middle of its target range. To help it, the Fed also adjusts the interest rate on excess reserves. These reserves belong to financial institutions and are deposited with the Fed.

In 2015 and 2016, the effective federal funds rate hovered close to the centre of the target range. As of 2017, the effective rate balance gradually shifted to the top of the target range, where the rate on excess reserves was also located. Throughout 2018, the effective rate moved closer to the interest rate on excess reserves. The Fed responded by shifting the reserve rate from the top of its target range. A spread of 5 basis points was introduced in June 2018; it was widened to 10 basis points in December 2018. The purpose of this operation was to bring the effective federal funds rate back closer to the centre of its target range. This rate started to settle above the rate on reserves, however. Further adjustments to the reserve rate were deemed necessary in May 2019 and again last September, bringing it closer to the bottom of the target range (graph 1).

The lack of control over the effective federal funds rate also forced the Fed to resume its repurchase agreements (repos). This temporarily injects liquidity into the money market and puts downward pressure on the federal funds interest rate. As of mid-October, total repurchase agreements amounted to approximately US\$180B.

GRAPH 1

The Federal Reserve is having difficulty keeping the effective federal funds rate at the centre of its target range



Sources: Datastream and Desjardins, Economic Studies

A Lack of Liquidity in the Money Market

The change in the behaviour of the effective federal funds rate appears largely due to the gradual decline in excess reserves (graph 2 on page 2). This decrease is the result of adjustments to other Fed liabilities, including the amount of cash in circulation, which tends to increase over time. The decision to reduce the size of the Fed's balance sheet between October 2017 and August 2019 also helped trim excess reserves.

The T-bill market is also being singled out to explain recent movements in the effective federal funds rate. A larger supply of these securities generates a form of competition in the money market, which drives up the effective rate for federal funds.

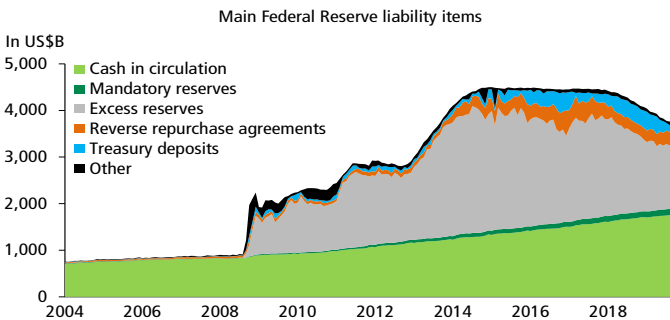
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NOTE TO READERS: The letters k, M and B are used in texts and tables to refer to thousands, millions and billions respectively.

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GRAPH 2
Excess reserves have declined steadily in recent years

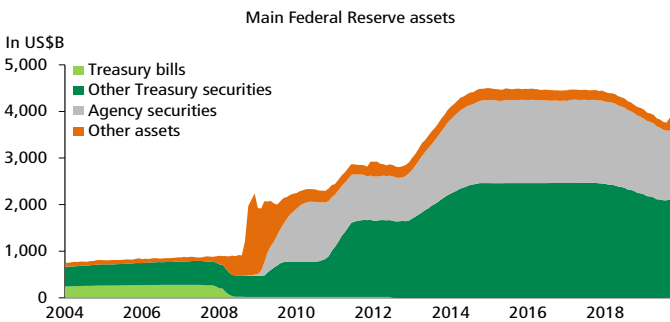


Sources: Federal Reserve, Datastream and Desjardins, Economic Studies

Stricter regulatory constraints likely make this worse as financial institutions are encouraged to maintain higher reserves on their balance sheets, at the expense of trading some of them.

Lastly, the Fed could even be part of the problem for the money market when it stopped holding Treasury bills after the 2008–2009 financial crisis, favouring longer maturities instead. Previously, close to one third of the Fed’s assets held were in this form (graph 3).

GRAPH 3
T-bills were struck from the Federal Reserve’s balance sheet



Sources: Federal Reserve, Datastream and Desjardins, Economic Studies

The Solution in the End: Buying T-bills

The Fed has already indicated that it wishes to remain in a regime with high excess reserves. It believes that returning to a regime with little or no excess reserve would require frequent and significant intervention in the money market, when that market’s characteristics appear to have changed.

To provide a more sustainable solution to the money market liquidity problem, the Fed has opted to buy US\$60B worth of Treasury bills per month. These purchases are expected to extend at least into the second quarter of next year. The total amount of

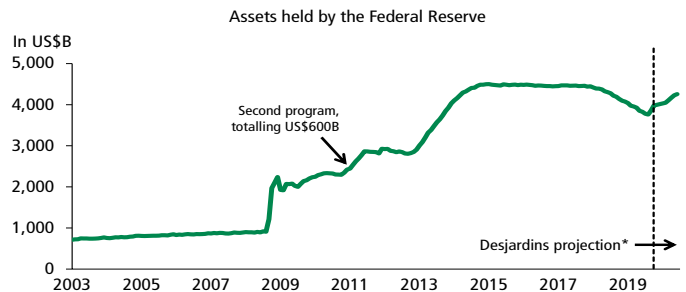
purchases could range from US\$360B to US\$480B, depending on whether the program stops in early April or late June. It could also be extended.

The Fed’s intervention will increase the size of its balance sheet and excess reserves, but it should also help rebalance the supply and demand in the T-bill market. Treasury bills could make up about 10% of the Fed’s assets. This would be a smaller proportion than before the 2008–2009 crisis, but still significant considering that the Fed’s balance sheet is much larger these days.

How Is This Different from Quantitative Easing?

In terms of size, the Fed’s current asset purchase program could be compared to its second quantitative easing program introduced in November 2010, which totalled US\$600B (graph 4). Assuming that T-bill purchases end in June, the size of the Fed’s balance sheet could even move closer to its previous peak.

GRAPH 4
The size of the balance sheet could grow almost as much as it did during the second quantitative easing program



* The projection assumes a gradual reduction in the use of repurchase agreements and continuing T-bill purchases until the end of the second quarter of 2020.
Sources: Datastream and Desjardins, Economic Studies

This does not make this a new quantitative easing program, however. The monetary base will certainly grow in size, due to the increase in excess reserves. Based on the quantity theory of money, this could create an increase in the money supply¹ and, by extension, drive up overall price level. Nevertheless, in practice, if financial institutions do not use these new reserves to grant new loans, there will be no impact on the money supply and prices. This should be the case with the Fed’s current purchasing program, which makes it difficult to refer to it as a quantitative monetary policy.

¹ The monetary base refers to the amount of cash in circulation and deposited in central banks by financial institutions. The money supply is the amount of cash in circulation plus demand deposits and any other type of deposit or asset that can easily be used as a means of payment. There are in fact several estimates of the money supply, depending on whether certain types of deposits or liquid assets are included.

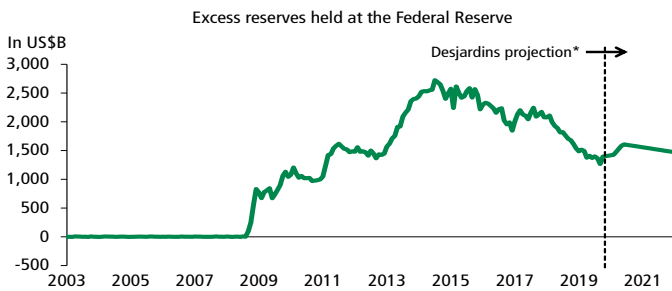
The Fed’s previous securities purchase programs also did not create an explosion in the money supply, but their objective was clearly to help credit. Without these programs, the money supply would likely have shrunk, which would have led to deflation in the economy. Moreover, the securities purchases focused mainly on long-term securities. The purchases were accompanied by signals from the Fed that it wanted to maintain an accommodative monetary policy over a long period. This drove down long-term interest rates sharply and encouraged credit. This is not the objective of the T-bill purchase program.

More Clarity Would Help Convince Us

One question remains unanswered, however. What is the most desirable level for excess reserves? A clearer target could facilitate the Fed’s communications on this point.

The Fed may also have to announce other small purchase programs in the future if it wants to remain in this system of ample excess reserves. Assuming that the size of the balance sheet stabilizes once again after the second quarter of 2020, the continued increase of cash in circulation will inflict a new downtrend on excess reserves (graph 5). Sooner or later, the problem of reserve scarcity will resurface and create more volatility with the federal funds effective rate. Could we even consider a reserve target relative to the size of GDP?

GRAPH 5
Excess reserves will increase, and then decrease again...



* The projection is based on T-bill purchases ending in June and an annual increase of US\$80B in cash in circulation. The Federal Reserve’s other liability items remain constant.
 Sources: Datastream and Desjardins, Economic Studies

On another note, an analysis of the optimal level of T-bills to hold could also shed some light. If it turned out that the money market would work better if the Fed held a larger share, wouldn’t it be easier to sell long-term securities to buy Treasury bills? Clearly, the Fed’s balance has not finished feeding reflections...

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