The U.S. economic recovery continues with many pundits predicting an improving trajectory over the next two years. That is, many expect the real gross domestic product (GDP) growth rate to experience a significant uptick to above 3 percent. The Federal Reserve (Fed) has been following a policy of tapering its acquisition of new assets, that is, by stopping its quantitative easing (QE). But the Fed still must unwind its unprecedented holding of assets—largely U.S. Treasuries and mortgage-backed securities—without either triggering a slump back into recession or igniting a significant spike in inflation.¹

After the financial crisis, the Fed drove the federal funds rate below 1 percent in August 2008 and quickly moved the rate to under 0.25 percent or 25 basis points, basically achieving a zero lower-bound interest rate. Having lost traction with its traditional monetary policy tool of lowering the short-term interest rate, the Fed turned to a new tool, QE. During the various QE programs, the Fed grew its balance sheet from about $1 trillion in assets in August 2008 to over $4.3 trillion today, as shown in Figure 1.

![Figure 1: Size of Federal Reserve’s Balance Sheet](image)

¹ Many analysts credit the Fed with preventing another Great Depression, but a few analysts criticize the Fed’s low interest rate policy prior to the financial crisis that fed, in this view, the housing price bubble. To wit, the federal funds rate fell below 2 percent at the end of 2001, reaching a low of 1.0 percent in early 2004 before rising to 5.25 percent in August 2006.
The various QE programs also drove the composition of the Fed’s balance sheet from its traditional holding of largely U.S. Treasury issues toward MBS. Figure 2 illustrates the percentage of the Fed’s assets in U.S. Treasuries (black line), MBS (green line), and borrowed reserves (red line) over time. One can note that the holding of U.S. Treasuries as a percentage fell dramatically before the acquisition of MBS began their rise as a percentage. The difference largely reflects a short period of time when banks borrowed enormous amounts of reserves from the Fed. For a number of months during the crisis, the banking system held negative non-borrowed reserves. In other words, the banking system borrowed more reserves from the Fed than the banking system actually held in its reserve accounts.

At the same time, bank reserves and excess reserves exploded from $45 billion to $2.7 trillion and from $2 billion to $2.6 trillion, respectively (Figures 3 and 4). Bankers typically argue that the accumulation of excess reserves occurred because of limited requests for credit—a lack of demand. Small businesses, who successfully qualify for credit, typically argue that they cannot afford the loan terms—a lack of supply. Bankers respond that the regulators required the tightening of credit terms. Currently, the banking system holds $1.72 in reserves against every dollar of transactions (checking) accounts, as shown in Figure 5. Such numbers are unprecedented.
Much of the unprecedented holding of reserves by the banking system reflects the noted decision of the Fed to pay interest on bank excess reserves in October 2008. When the 0.25 percent (25 basis points) interest rate exceeds the Fed’s targeted federal funds rate, little incentive exists for banks to loan overnight funds to other banks. Rather, banks just continue to hold their excess liquidity on deposit at the Fed. Moreover, the large supply of excess reserves provides the fuel that could ignite a destructive inflation. That is, according to a few analysts, the return to more normal credit market conditions will see the dramatic increase in credit and money creation, leading to significant inflation. In other words, the huge supply of excess reserves could quickly turn into lots of money and credit.
The Fed recently published its policy normalization principles and plans. By policy normalization, the Fed means “raising the federal funds rate and other short-term interest rates to more normal levels.” To normalize, the Fed will use the interest rate that it pays on excess reserves. The Fed also plans to use, as needed, reverse repurchase agreements to allow nonbanks, such as money market mutual funds and others, to also gain access to the interest rate that banks receive on excess reserves. In addition, once the Fed begins the process of normalization, it will also begin winding down its asset holds from the current level over $4 trillion to a more normal level by not reinvesting principal repayments on assets held by the Fed.

The Fed continues its process of winding down QE. In October, it only purchased $5 and $10 billion of mortgage-backed and Treasury securities, respectively. Once QE ends, the Fed will continue to reinvest principal repayments, holding the size of its balance sheet constant, until the normalization process begins, which the Fed expects to begin in mid-2015. The rate of improvement in the macroeconomy can affect the timing of when normalization begins. If the economy grows more (less) quickly than currently anticipated, then normalization can occur before (after) mid-2015.

Traditionally, the Fed implements a tightening of monetary policy by selling government securities in the open market. Such action withdraws liquidity, lowers asset prices, and drives up interest rates. But, when the economy recovers, withdrawing liquidity too quickly can drive up interest rates too high, stalling the recovery. Withdrawing the liquidity too slowly can leave interest rates too low, overheating the economy and igniting inflation.

As noted above, the Fed now plans to maintain the size of its balance sheet after QE ceases until it begins to “normalize” by raising interest rates. When this normalization begins, the Fed will raise the interest rate on excess reserves to lock them up and to prevent the banking system from financing excessive money and credit creation. Only after normalization begins will the Fed begin to reduce the size of its balance sheet and then only by the pace of principle repayments on the assets in its balance sheet.

This new strategy, however, faces the same dangers as the more traditional approach. First, if the Fed responds too slowly and the interest rate on excess reserves does not rise enough, then more money and credit creation will occur than planned, which can overheat the economy and spark inflation. If the Fed reacts too quickly and drives the interest rate on excess reserves too high, then too little money and credit creation will occur, slowing the economic recovery and possibly triggering a return to recession.

This new strategy also introduces a new danger. When the private sector demands more credit for spending, the excess reserves needed to finance more demand for credit already exists on bank balance sheets. Thus, credit and money growth can occur even without explicit Fed action. The Fed will then react to, rather than lead, events.
No matter which strategy the Fed adopts, the same risks exist. The Fed needs a Goldilocks story—neither too little nor too much credit creation, just the right amount. The Fed currently travels over unmapped terrain and the possibility of making wrong turns is high. The worst-case scenario, however, could occur even absent Fed errors. To wit, so much liquidity may exist in the system that the required increase in the interest rate on excess reserves to prevent too rapid an increase in money and credit may plunge the economy back into recession and absent that increase in interest rates, the growth in money and credit may prove too expansive, leading into an economy with way too much inflation. In other words, the Fed’s past policies may have created a situation where no exit strategy can occur without significant pain, recession, inflation, or possibly both.

Nevertheless, given where we are today, the current strategy of using the interest rate on excess reserves to lock up those reserves in the short run and withdrawing the excess liquidity from the system in a sustained and systematic manner is the best policy choice. This choice also may give the Fed more control over the economy. That is, this strategy may reduce the ability of banks to supply increased demands for credit without explicit Fed action, a problem that inherently exists with all the excess liquidity in the system.

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