POLICY UPDATE

Time to Unwind

BY HELEN FESSENDEN

his fall, the Fed is taking initial steps to unwind a signature post-recession stimulus policy by trimming back its massive balance sheet. Under quantitative easing (QE), the Fed launched several rounds of bond buying during and after the financial crisis, boosting its balance sheet from around \$800 billion to \$4.5 trillion. The primary goal of QE was to lower interest rates for longer-term securities and mortgages, thereby making borrowing cheaper and stimulating the economy. (The Fed also kept its benchmark rates near zero throughout this time, which affected short-term rates.) The Fed now holds about \$2.4 trillion in treasuries (17 percent of the market) as well as \$1.7 trillion in mortgage-backed securities, or MBS (29 percent of the market).

The Fed has long made clear that it would start to shrink its balance sheet once the process of raising short-term interest rates was well underway. In 2014, the Fed announced it would stop increasing its net bond holdings

and instead maintain the size of its balance sheet by reinvesting bonds once they matured. Then, this past June, it said it would soon start allowing bonds to "roll off" — that is, mature and not be replaced by another security — so that its balance sheet would slowly shrink.

In October, this process began incrementally, with \$6 billion in treasuries and \$4 billion in MBS rolling off each month. Those sums will gradually increase to \$30 billion and \$20 billion per month, respectively. The aim of such a gradual and transparent implementation is to avoid the kind of disruption seen with the 2013 "taper tantrum," when markets were jolted on fears that the Fed would pull back quickly on its stimulus. This year, so far, Fed balance-sheet announcements have not sparked similar turmoil.

So what does "rolling off" actually look like? In some ways, it's just the bond buying process in reverse. Under QE, the Fed bought treasuries on the open market and paid for those purchases (which are assets on the Fed balance sheet) by crediting banks with reserves (which are Fed liabilities). This is the main reason why bank reserves also dramatically expanded under QE, from \$900 billion before the crisis to \$2.6 trillion at their peak (today, they are more than \$2.3 trillion). Under the new policy, most treasuries on the balance sheet will still be reinvested. But for those that are slated to roll off, the Treasury Department, as the original bond issuer, will pay off the expiring debt in a process that ultimately transfers cash

to the Fed. Once that bond is paid off, it's taken off the Fed balance sheet, while bank reserves decline by a corresponding amount.

In the case of MBS, the process is similar. These securities are backed by pools of mortgages purchased by the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac, as well as Ginnie Mae (a federal agency). They repackage the mortgage debt into bonds and then sell the MBS to investors and financial institutions. Under QE, the Fed bought the MBS on the open market and then credited the reserve accounts of the GSEs and Ginnie Mae. By extension, the MBS roll off when the principal values are paid down for the mortgages underlying the MBS — for example, through normal payments, sale of property, or refinancing. In turn, the value of the Fed's MBS holdings declines.

The Fed has not given a public estimate of how far this process will go. But many observers believe that the balance sheet's ultimate size, as well as the result-

ing amount of bank reserves, will be significantly larger than pre-crisis levels. One reason is that a central bank's balance sheet needs to be at least as large as the amount of currency in circulation. In the case of the U.S. dollar, total currency circulation (home and abroad)

has grown from \$800 billion in 2008 to \$1.5 trillion today. The Fed estimates this sum will expand to \$2 trillion in the next five years.

Another reason has to do with the conduct of monetary policy. Traditionally, the Fed controlled short-term rates by a combination of adjustments in the quantity of reserves and the discount rate; these changes would affect supply and demand, respectively, in the fed funds market (the overnight interbank market). Since the crisis, however, excess reserves have grown so much that the interbank market has effectively disappeared, so such adjustments would have little effect on rates. The Fed has found that a more robust tool, also in effect since 2008, is adjustments in the interest rate paid on banks' excess reserves. This way, it has learned, it can control the range for the fed funds rate.

"It's not unreasonable to argue that the optimal size of the Fed's balance is currently greater than \$2.5 trillion and may reach \$4 trillion or more over the next decade," wrote former Fed Chairman Ben Bernanke on his blog earlier this year. "In a sense, the U.S. economy is 'growing into' the Fed's \$4.5 trillion balance sheet, reducing the need for rapid shrinkage over the next few years."