



# INVESTMENT UPDATE

We can recall no time in the past few decades (hey, some of us are old!) when the bond market has been so concerned with the Federal Reserve. Sure, back in the 1980s, our market hung on the Fed's money supply numbers each Friday afternoon at 4:30, since that was the only way to monitor the Fed's cigar-smokescreened monetary policy (and keep the traders from starting their weekends early). The modern-day Fed, however, provides plenty of disclosure, with press conferences, speeches, "forward guidance," minutes from the Fed's Open Market Committee (FOMC) meetings, as well as detailed forecasts of important economic and policy measures. Yet even with all that information coming from the Fed, we have never been more obsessed with its every move.

"Well, yeah," you say, "it's no surprise given the Fed's enormous influence on the markets." And you would be correct. Ever since the financial crisis—and, arguably, because of it—the US central bank broadened its role more in a decade than it had over the previous 100 years. The Fed has always published research, regulated certain banking institutions, monitored bank reserves, and occasionally changed the overnight bank lending rate. During the financial crisis, the Fed rolled out six new special liquidity programs, drove the benchmark Fed funds lending rate to zero, and embarked on its large-scale asset purchase program (LSAP), which involved active purchases of government bonds in the open markets. In addition to new policies and tools, the Fed broadened its examination of data to include global markets. Now we're seeing, for the first time, US monetary policy decisions directly impacted by global events.

What we really want to focus on this month is the Fed's massive bond portfolio that resulted from the LSAP—how it's changed over the past decade, and what it might look like in the future. You will recall that in the immediate aftermath of the financial crisis, even with zero percent interest rates, the US was still faced with a huge "output gap"—our economy was operating well below what it was capable of producing. Household wealth had been wiped out by plummeting home values, leaving consumers with little discretionary income. Retail sales fell, companies laid off employees by the millions, and economic growth

ground to a halt. Banks were reluctant to extend credit, and businesses and households didn't want to borrow anyway; short-term rates at zero were all well and good, but longer rates were still high relative to the anemic demand for credit. Conventional Fed policy had run its course, with little effect.

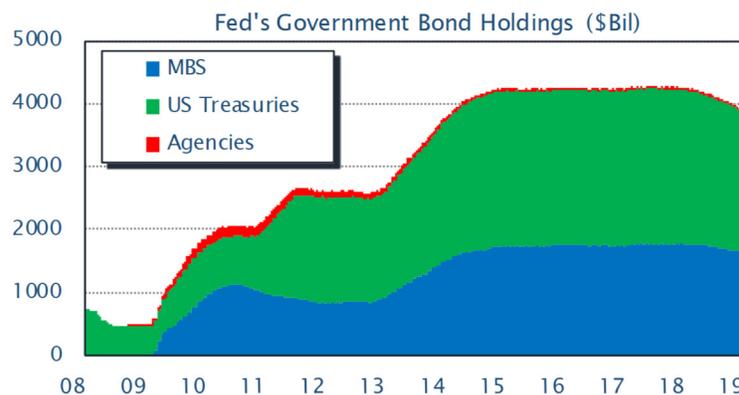
The Fed's solution was to implement a program of quantitative easing (QE), which would do more to bring down longer-maturity rates, which would in turn help prop up the ailing housing market and banking system. Initially, this involved direct purchases (conducted by the Federal Reserve Bank of New York) of government-sponsored mortgage-backed securities (MBS), but was soon augmented by purchases of US Treasury notes and bonds with maturities all the way out to 30 years. The program seemed to work ("seemed" because it's hard to measure what may have happened in its absence), and over

time, grew in both size and scope. Importantly, the QE program was accompanied by forward guidance—the Fed's own commentary about the need for QE, and how long it might remain in place.

As the chart shows, over a seven-year period from 2009 to 2016, the LSAP grew the Fed's Treasury and MBS holdings to more

than \$4.2 trillion, which at its peak represented 25% of US GDP. The Fed's purchases took a huge chunk of investable, low-risk assets out of circulation, substituting dollars in their place, which encouraged investors to buy riskier assets. That was the easy part—the thornier issue was always going to be how the Fed reversed those purchases. You will recall that the capital markets had a conniption fit back in 2013 when the Fed merely floated the idea of tapering its then-\$70 billion per month bond purchases (the so-called "taper tantrum"), sending policymakers back to their desks to work out exactly how to communicate and implement the eventual draw down.

After plenty of carefully-worded forward guidance (and well after it began hiking the funds rate), the Fed finally began to shrink its holdings in the fourth quarter of 2017. It announced that these runoffs would be passive—instead of reinvesting all proceeds from maturing bonds (or MBS' principal paydowns), it would place a monthly cap on how much not to "roll over."



These monthly caps were scheduled to ramp up over time, to the point that by year-end 2018, the Fed would be allowing \$50 billion per month to roll off without replacement (\$30 billion in Treasuries, \$20 billion in MBS). The increasing size of the portfolio runoff was intended to give the capital markets time to adjust to the Fed's shrinking investment portfolio.

But now that we've had some time to look at the data, we see that the roll-off of securities has not gone according to schedule. As the chart on this page shows, the Fed's investment portfolio has been paying down irregularly, and not in the size that was announced—if the schedule had been followed as planned, its portfolio should have already shrunk by \$500 billion, but instead has been reduced by a little more than \$400 billion. And projections for 2019 show that instead of shrinking by the expected \$650 billion, it will more likely decline by something closer to \$450 billion; that's \$37 billion per month instead of the previously-announced \$50 billion. By the end of 2019, the balance sheet will have shrunk by \$200 billion less than expected. What is going on?

The simple answer is that the Fed, by allowing the portfolios to draw down passively with maturing Treasuries and MBS pay-downs (and not outright sales), is falling short of its goals. There simply has not been a sufficient amount of maturities/

paydowns in some months to meet the schedule, and it is reluctant to engage in active selling of existing holdings. Another way of looking at this is that the Fed never had a schedule, *per se*; it merely placed caps on the paydowns—the maximum it would allow in a given month—and those caps have not been exceeded. In other words, the Fed left itself plenty of flexibility with its plans to shrink the investment portfolio, and could at any time begin reinvesting some or all of the principal it receives each month and slow the pace of shrinkage even further if conditions warrant. In any case, investors have barely noticed the slower rate of the paydowns, and despite the somewhat sluggish pace, the Fed will hit its intermediate target of a \$1 trillion shrinkage in early 2020; that's only a few months behind schedule.

That the Fed has built in flexibility is no surprise; current monetary policy is much more ambiguous than it has been in recent years, as the "once per quarter" Fed funds rate hikes have been put on hold since the capital markets' violent reaction to December's rate increase. It's therefore fair to ask at what point the Fed might also pause its balance sheet runoff. Our best guess—and it's a barely educated one—is that the Fed would like to get the portfolio down by \$1 trillion before it takes a pause. There are

two main factors to consider: first, the Fed doesn't want the runoff to move the markets and push rates up (and impact the economy), and second, it doesn't want the runoff to lead to an insufficiency of offsetting bank reserves on the liability side of the Fed's balance sheet.

The first point is somewhat confusing. If the LSAP/QE programs helped to lower rates after the financial crisis, wouldn't reversing that process cause rates to rise? According to work from Goldman Sachs, the answer is yes; rates would rise, but the move would be so small you might not notice it. That's mainly due to the effect of (once again) forward guidance. The Fed's balance sheet expansion was accompanied by guidance that rates would remain low for a protracted period. That's not the case with the runoff; as Goldman points out, portfolio runoff and rate hikes are substitutes, not complements (as the LSAP/zero rate policies were). For this and other reasons (including the fact that we're only talking about shrinking the portfolio by \$1 trillion of its \$3

trillion expansion), Goldman estimates that if QE helped to push rates down by 75 basis points (0.75%), the balance sheet reduction is likely to have only a four basis point effect in the opposite direction.

As for the danger of declining bank reserves, a quick explanation is in order. When the Fed expanded the balance sheet, the purchased bonds were "funded"

by increases in reserves that banks kept with the Fed; the bonds are assets on the Fed's balance sheet, the reserves are liabilities, and they expanded pretty much dollar-for-dollar during the LSAP/QE program. Shrinking the portfolio will have the reverse effect, and the Fed is concerned that if reserves shrink too much, there could be a scarcity of reserve funds in the system, which could add volatility to short-term interest rates. Reserves today are at \$1.6 trillion, and an additional \$600 billion in portfolio runoff will bring reserves down to around \$1 trillion. The Fed views this as a sufficient cushion, but has also announced that it will be monitoring various indicators in the coming months to make sure that system reserves remain adequate.

In recent statements, Fed Chair Jay Powell acknowledged that investors are now looking for more clarity about its plans for the balance sheet. Goldman notes that this could include an announced end-date to the portfolio runoff, or a revised schedule, including details about the issue of bank reserves. One way or another, the Fed will, as always, be keen to retain maximum flexibility. The modern Federal Reserve knows that policy works best with plenty of guidance, but is also careful to never paint itself into a corner.

