In this article, I argue that the Fed’s precrisis monetary policy implementation framework is well-suited to a free society. First, I review several of the critical decisions that drove the Fed to its current framework, in most cases because of unintended and unforeseen consequences. Next, I describe how the Fed can return to conducting policy in its precrisis manner.

Monetary Policy Implementation Framework before the Crisis

Prior to the crisis, the Fed conducted monetary policy using Treasury purchases and relatively small repo operations with primary dealers, the large broker-dealers authorized to do business with the Fed. Those transactions adjusted the total quantity of reserve balances so as to keep the federal funds rate—the market interest rate at which commercial banks lend overnight, unsecured to each other—near its target. The dealers were not reliant on the repo transactions with the Fed for funding, and the Fed was largely indifferent to the repo rate. Banks borrowed and lent to each other in the federal funds market, not with the Fed. Consequently, the Fed was counterparty to only a small number of relatively inconsequential financial transactions each day.
Four Decisions That Led to the Fed’s Current Large-Balance-Sheet Framework

During the crisis and the anemic recovery that followed, the Fed made a series of decisions that led to the large-balance-sheet implementation framework it uses today.

First, the Fed allowed the Treasury to switch from keeping most of its cash at commercial banks to keeping all of its cash at the Fed. The Treasury initially increased its deposits at the Fed in 2008 to help the Fed finance its emergency lending, but the Treasury ended up keeping all of its cash at the Fed because doing so saved taxpayers money during the six-year period when interest rates were near zero (Santoro 2012). During that period, the Treasury would have earned zero on any funds it kept at a commercial bank. While the Fed also paid the Treasury zero interest on its Fed deposits, a Treasury deposit at the Fed reduces bank deposits at the Fed one-for-one, and the Fed, which remits its income to the Treasury, was paying 25 basis points on commercial bank deposits. But even though market interest rates have been above zero since the end of 2015, the Treasury continues to keep all its cash at the Fed. Whereas before the crisis, the Treasury kept about $5 billion at the Fed, the Treasury’s current Fed deposits are currently worth about $300 billion and highly variable. There is no record that I can find in the minutes or transcripts of FOMC meetings of the FOMC actually making the consequential decision to allow the Treasury to keep all its cash at the Fed when rates fell to zero nor revisiting the decision when rates increased.

Although it is beyond the scope of this article to discuss in detail, a similar set of issues was raised by the growth of the foreign repo pool, where foreign official and international holders of accounts at the Fed invest in overnight reverse repurchase agreements (Nelson 2019a). That pool has grown from about $30 billion before the crisis to about $300 billion now. Again, there is no record in the FOMC meeting minutes that I can find of a decision to allow the foreign repo pool to grow.

Second, in late 2012, the Fed embarked on its flow-based asset purchase program, also referred to as QE3 or QE-infinity. While the

\footnote{For a discussion of the Fed’s decision to embark on QE3 and change its normalization principles, see Nelson (2018).}
first two large-scale asset purchase programs were finite in size, under QE3, the Fed indicated that it would purchase $85 billion in Treasury securities and agency MBS each month until there was a substantial improvement in the outlook for the labor market, subject to periodic reviews of the efficacy and costs of the program.

The staff originally projected the program to finish in June 2013 and accumulate $750 billion in assets. Some FOMC participants were skeptical, however, that the program would end so soon because the staff forecast showed no improvement in labor market conditions by the projected end date. For example, then-Governor Jay Powell asked: “How is this not a $1 to $2 trillion [program]? Where is the improvement in labor markets?” (FOMC 2012: 203). FOMC participants were also skeptical that it would be feasible to use the “efficacy and costs” escape hatch—which would require the Fed to state that its large-scale asset purchases were not working.

As it turned out, the Fed’s QE3 purchases lasted until the end of October 2014, 15 months later than originally projected. In total, the Fed bought $1¾ trillion in MBS and Treasury securities—more than double the amount it initially projected.

Third, the massive size of QE3 drove the Fed to change its plans for how it would normalize its balance sheet. In June 2011, the Fed indicated that once it began to tighten monetary policy, it would sell its MBS portfolio over a period of three to five years. But selling the huge portfolio acquired under QE3 over five years would have resulted in significant projected losses for the Fed and also could have disrupted the MBS market. In September 2014, the Committee adopted new principles that stated the Committee would simply allow the portfolio to shrink as assets matured.

Fourth, doubts about being able to raise the federal funds rate when needed (due to the massive level of reserve balances in the system by that point) led the Committee in 2014 to open a standing overnight reverse repurchase agreement (RRP) facility. The RRP facility enabled the Fed essentially to extend its authority to pay interest on deposits from commercial banks to a broad set of nonbanks—including Fannie, Freddie, the FHLBs, and money market mutual funds. Without the RRP facility, when the Fed decided to raise the interest rate it paid on commercial banks’ deposits, this increase might not have been transmitted one-for-one into the federal funds rate because the nonbanks given access to the RRP facility might have continued to lend at low rates. When adopting the
facility, the Fed indicated that it would “phase it out when it is no longer needed to help control the federal funds rate” (Board of Governors of the Federal Reserve System 2014.)

The Fed’s Perceived Advantages and Disadvantages of its Large-Balance-Sheet Approach

On January 30, 2019, the Federal Open Market Committee announced that it intended to continue implementing monetary policy using a framework that requires a large balance sheet and abundant reserves—the same framework it has used since the financial crisis, in spite of a relatively stable economy, steady inflation, and low unemployment. The FOMC rejected the principal alternative to the abundant reserves approach, which was to conduct policy with a small balance sheet and scarce reserves, as it did before the crisis.

The minutes of the FOMC meetings in November and December 2018 and January 2019 reveal what the Fed perceived as the primary advantage and disadvantage of an abundant reserve framework. The perceived advantage was that such a framework allowed the Fed to conduct monetary policy without needing to engage in frequent open market operations. The disadvantage was that it required the Fed to operate with a larger balance sheet, and the FOMC indicated that it would have to reconsider its decision if the needed balance sheet became much larger than it then expected. The Fed did not specify the quantity of reserves it thought would be necessary for an “abundant reserve” framework when it made its decision in January 2019, but a reasonable guess suggests this amount is about $1 trillion.

The Fed’s Guess at the Level of Reserve Balances Necessary for “Abundance” Has Grown over Time

The quantity of reserves that the Fed has judged to be necessary for its “abundant reserve” framework has grown steadily over time (Nelson 2019b). In April 2008, when Federal Reserve staff first considered the possibility of operating policy with an abundant reserve framework, staff estimated that an abundant level of reserves “might be on the order of $35 billion but could be larger on some days.” This estimate rose to $100 billion in 2016, $500 billion in 2017, and
$600 billion in 2018. As noted, the available information suggests the FOMC judged in January that about $1 trillion in reserves was abundant, and it would be reasonable to assume that its current estimate is about $1.5 trillion.

Why has the Fed’s forecast of the minimum abundant level of reserves grown steadily over time? When the Fed completed QE3, reserves peaked at $2.8 trillion, and for nearly a decade, the interest rate the Fed paid on reserve balances was above the interest rate banks could earn on other, similar liquid assets. Over time, banks’ demand for reserves grew as banks and their supervisors took actions that were reasonable given the abundant reserve environment and then grew accustomed to the increasingly important role of reserves in their liquidity risk management.

An anecdote recently provided by a banker provides a good example of this process. When the interest rate on reserves was higher than market rates, her bank elected to hold reserves in an amount equal to its projected cash needs over one week and Treasury securities to cover needs over the following three weeks. When repo rates moved higher than the interest rate on reserves, the bank considered reducing its cash holdings to its projected need over three days, still holding Treasury securities to cover the remaining month. While both arrangements are consistent with liquidity requirements, supervisors expect an explanation for the reduction in cash, so the bank elected not to make the change. In short, the Fed’s estimate of the amount of reserves needed to operate an abundant reserve framework has grown over time because the level needed has risen with the level provided.

Just such a dynamic led the Norges Bank (the central bank of Norway) in 2010 to switch from a system with abundant reserves to a system with more scarce reserves, (roughly the inverse of the FOMC’s decision in January 2019). When commenting on their decision, they said:

When Norges Bank keeps reserves relatively high for a period, it appears that banks gradually adjust to this level. . . . With ever increasing reserves in the banking system, there is a risk that Norges Bank assumes functions that should be left to the market. It is not Norges Bank’s role to provide funding for banks. . . . If a bank has a deficit of reserves towards the
end of the day, banks must be able to deal with this by trading in the interbank market [Norges Bank 2010: 5–6].

Andrew Filardo has also published data that illustrate the hysteresis in the relationship between the fed funds-IOER spread and the level of reserves as reserves grew and then declined (Filardo 2020).

Three Steps Necessary to Return to Conducting Policy with a Smaller Balance Sheet and Scarce Reserves

On October 11, 2019, in the wake of the September episode of the repo market turmoil, the Fed announced that it would no longer let the level of reserves decline gradually. Instead, it would raise reserve balances back up at least to their level before the money market turmoil (Board of Governors of the Federal Reserve System 2019). If the Fed decides to include a buffer to absorb future swings in reserves, it could end up aiming for reserve balances of about $1.75 trillion. Despite the fact that the amount deemed necessary for “abundant reserves” is now considerably higher, by any reasonable definition, than the level the Fed likely anticipated when it implemented its new reserve framework in January, the Fed has provided no indication that it is giving the precrisis approach “further consideration,” as it said it would.

The Fed once had a monetary policy framework for a free society, but after shifting to war footing during the financial crisis and its aftermath, it got caught in a cycle of ever-increasing involvement in the financial system. Whereas before the crisis, the Fed had assets and liabilities with private and foreign official institutions as counterparties equal to $66 billion or 4 percent of the sum of the Fed’s assets and liabilities, currently these figures are about $2 trillion and 25 percent of the sum of its assets and liabilities.2

To return to its precrisis framework, the Fed needs to take three steps. First, it needs to control volatility in reserve balances, especially volatility caused by swings in the Treasury General Account. The Fed can do so using large, high-frequency repos in the near

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2The figures are calculated using data from the Federal Reserve Board’s statistical release H.4.1 as of June 29, 2007, and October 31, 2019. Assets and liabilities with private and foreign official institutions equal repurchase agreements, loans, reverse repurchase agreements, deposits of depository institutions, and foreign official deposits.
term, but in the intermediate term, the Treasury needs to return to keeping its cash in the private sector.

Second, the Fed needs to conduct a massive reeducation campaign for bankers and bank supervisors to root out any unwarranted bias toward deposits at the Fed as a liquid asset, and to install the view that collateralized daylight overdrafts and occasional discount window borrowing are appropriate.

Third, the Fed needs to restart the gradual decline in its portfolio of securities. The resulting upward pressure on short-term interest rates relative to the IOER rate will lead banks to economize on their holdings of reserve balances.

These steps will promote a virtuous cycle. Reduced volatility of reserves will allow the Fed to shrink with less risk of turmoil in money markets. Greater willingness to allow banks to substitute Treasuries for reserve balances for purposes of meeting liquidity requirements will allow the Fed to shrink further and also reduce risk of money market volatility. The increased opportunity cost of keeping deposits at the Fed will encourage banks to find alternatives to Fed deposits and will lead supervisors to be more comfortable with those alternatives.

Eventually, once money market rates (as well as the FOMC target for money market rates) are well above the interest rate, the Fed pays on deposits, the Fed will essentially have returned to conducting monetary policy in its precrisis manner. The fed funds market will recover as banks again seek to economize on their end-of-day balances at the Fed. The Fed will be able to close its standing reverse repurchase agreement facility. The marginal transaction in the market that the FOMC is targeting will again be between two commercial banks, rather than a commercial bank and the Fed.

References


