

Economic Analysis

On Principles: Fed does about-face on operational framework and balance sheet strategy

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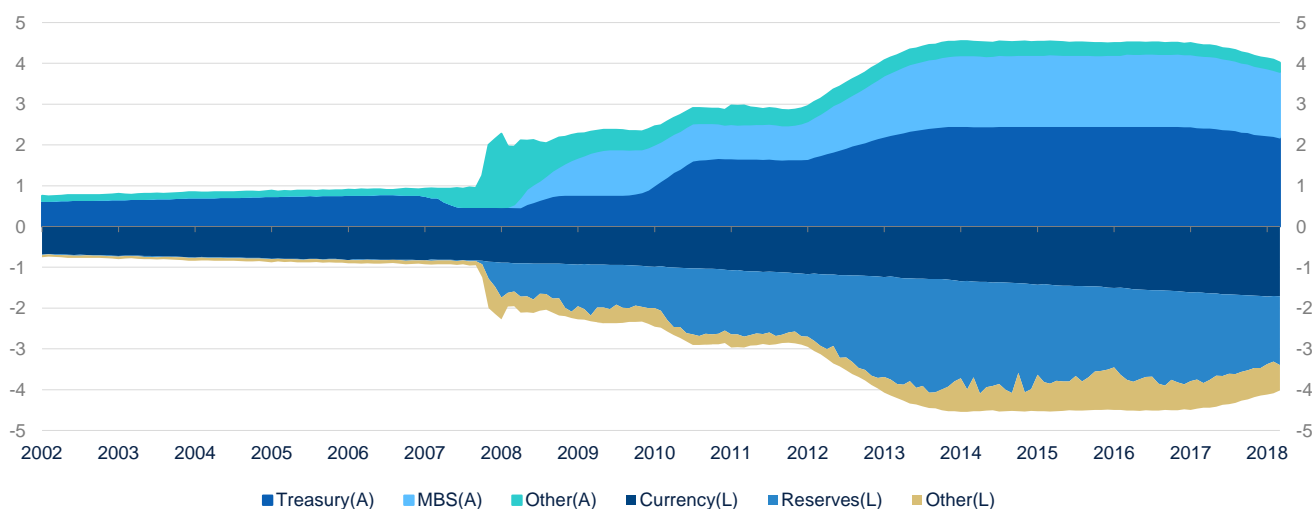
After the January meeting, the Federal Reserve Open Market Committee announced a major policy reversal. While this U-turn came as a surprise given the long-standing desire to return to a pre-crisis operating framework, the Fed has incrementally adjusted its approach to normalization as conditions have evolved.

In June 2011, the Federal Reserve (Fed) communicated the key “exit strategy principles” for normalizing both interest rates and its balance sheet, which had reached \$2.8 trillion. Under these principles, reinvestments would cease and reserve-draining operations would be initiated before the first increase in the federal funds rate target. The interest rate on excess reserves (IOER) and the level of reserves would be adjusted to bring the federal funds rate toward its target. Sales of agency securities would be “aimed at eliminating [...] holdings of agency securities over a period of three to five years.”

In September 2014, after the balance sheet ballooned to \$4.5 trillion, the Fed released its “Policy Normalization Principles and Plans” (PNPP), signaling that it would not conduct asset sales or reserve draining operations. Rather, the Fed committed to cease principal reinvestment of their securities portfolio after the start of its interest normalization plans, without outright sales of agency securities, and do so until the committee reach a level that required “no more” securities than necessary to implement monetary policy. In addition, the Fed would lift rates by increasing the IOER and by using overnight repurchase agreements and other administrative rates until “they were no longer needed”.

In June 2017, the Fed once again updated the PNPP and announced the caps for the reinvestment of principal payments. In addition, the Fed stated that the quantity of reserve balances would be reduced, “over time, to a level appreciably below that seen in recent years, but larger than before the financial crisis.”

Figure 1. Factors Affecting Federal Reserve Balances, \$ Trillions



Source: BBVA Research

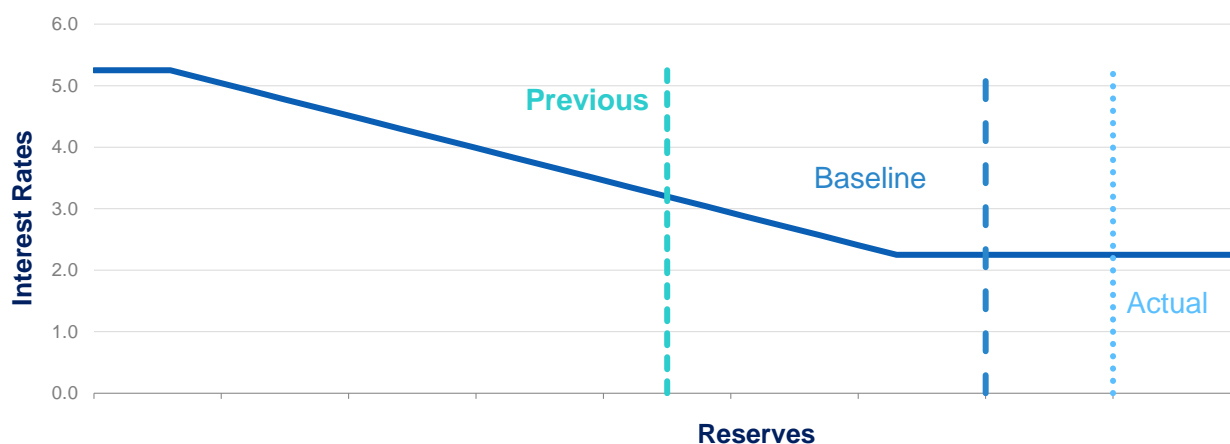
Tweaks to Fed balance sheet strategy and operational framework

For years, given the large expansion of the Fed’s balance sheet and the need to respond effectively in future downturns, whereby the likelihood of hitting the Zero Lower Bound (ZLB) is high, the committee has debated what the appropriate operating framework would be. In determining the desired size of the balance sheet, the Fed has to evaluate two concerns. The first consideration is whether the Fed prefers to operate in an environment of abundant or scarce reserves. The second consideration, conditional on choosing the operational framework, is determining bank’s preferences for reserves, and at which points the elasticity of the demand curve changes.

To transition to an environment where reserves are scarce, as was the strategy up until 2018, the Fed faced a number of challenges. The Fed must anticipate at what level the banking system transitions from the current setting, where reserves are abundant, to one where reserves are scarce. If for instance, the Fed failed to anticipate the transition and the level of demand for reserves increases abruptly, there could be a surge in rates. If the demand for reserves plummets, rates would fall significantly. Therefore, unless the Fed has an accurate estimate of the demand for reserves at all times, the likelihood of experiencing a volatile transition is high.

Estimates suggest brokered trading in the Fed Funds market is about a third as large as in the pre-crisis. Moreover, the Fed has no explicit target or precedent for the demand for safe assets given both the changes in liquidity requirements (LCR & SLR) and shift in operational framework. In fact, even in the pre-crisis with a more parsimonious operational framework, the demand for reserves was difficult to forecast and unpredictable. In most cases, open market operations were performed on a daily basis. Lastly, if balance sheet tapering lowered reserves to below a level considered “relatively” scarce by banks, interest rate fluctuations could be determined by the regulatory penalties associated with the reserve requirements and capital shortfalls rather than supply and demand conditions.

Figure 2. Actual and Expected Terminal Level of Reserves and IOER, \$ Trillions & %



Source: BBVA Research

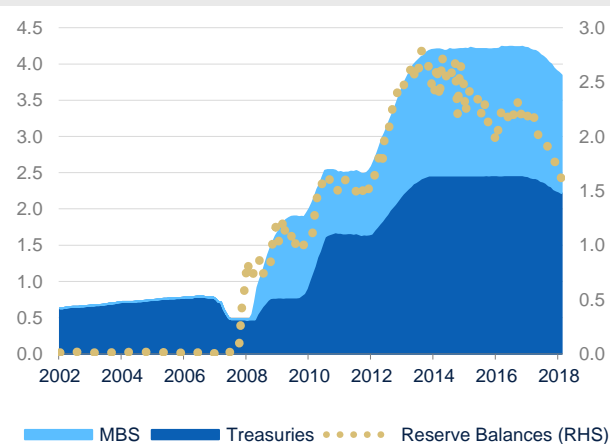
Based on these challenges, the Fed maintained its current floor system whereby the “control over the level of the federal funds rate and other short-term interest rates is exercised primarily through the setting of the administered rates –IOER and the offering rate on overnight reverse repurchase agreements (ON RRP)-, and in which active management of the supply of reserves is not required.” In essence, the stance of monetary policy remains linked to the quantity of reserves demanded by banks rather than the supply of reserves. The Fed realized that the likelihood of fully disentangling their normalization strategy from the long-run operation framework was not possible in the medium-term and that the best strategy would require a higher terminal level of the balance sheet than would be needed in a corridor system, as was the case before the Great Recession.

The decision to maintain the floor system eliminates the need to precisely estimate the impact that regulation and structural changes have had on the demand for reserves. In addition, the supply of reserves and interest rate policy will be independent, meaning the Fed could use its balance sheet to respond to a liquidity crisis without affecting its other objectives. Administered rates have also been used effectively at other central banks—Bank of Canada, Bank of England, Bank of Japan, ECB, Norges Bank, Reserve Bank of Australia, Reserve Bank of New Zealand and Swedish Riksbank.

Fed to reach terminal balance level in 2019

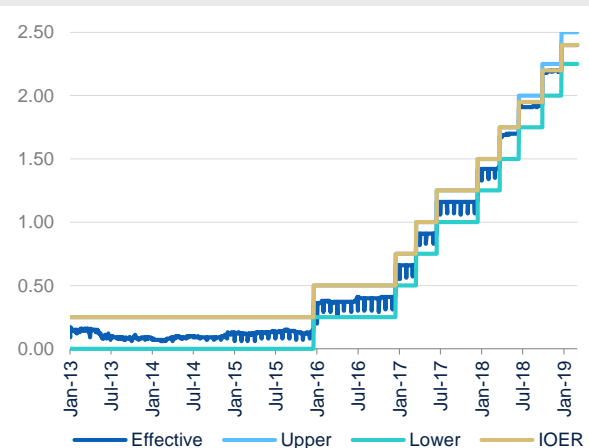
As mentioned before, up until recently, the Fed’s plan was to return reserves to levels that coincided with the downward sloping portion of the bank’s demand curve, or in Fed speak, to a level that satiated bank’s appetite for reserves, but that provided “no more” than was necessary. This implied that the Fed would reduce its balance sheet to around \$2.5 trillion in which case reserves decline to around \$200 billion, assuming that the growth in currency in circulation remained consistent with nominal growth rates. This level of total liabilities was consistent with the pre-crisis average plus a small risk-adjustment that reflects the structural change in the demand for reserves.

Figure 3. Balance Sheet Assets & Reserves, \$ Trillion



Source: BBVA Research & FRB

Figure 4. Federal Reserve Administered Rates, %

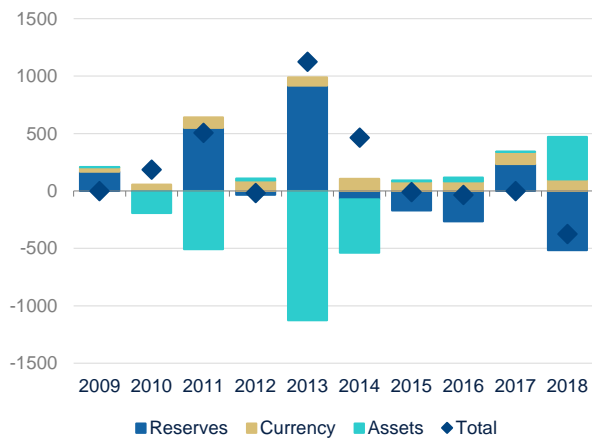


Source: BBVA Research & FRB

However, with the Fed’s commitment to a floor system, the terminal level of the balance sheet is going to be substantially higher than would be needed to execute a true corridor system. Based on the shift in the operational framework and the shift in bank’s preferences for cash-like assets, we expect the Fed’s balance sheet will decline to around \$3.6 trillion before rising again. The reinvestment caps for Treasuries and Mortgaged Backed Securities (MBS) put in place in 2017 are unlikely to be changed given that in most months they are not binding, and thus adjusting the caps at this point would likely produce more uncertainty than major benefits to markets. As a result, based on the projected pay down of the Treasury and MBS portfolio, the Fed will reach its target by December 2019, at which point around 60% of the portfolio will be Treasuries and around 40% will be MBS.

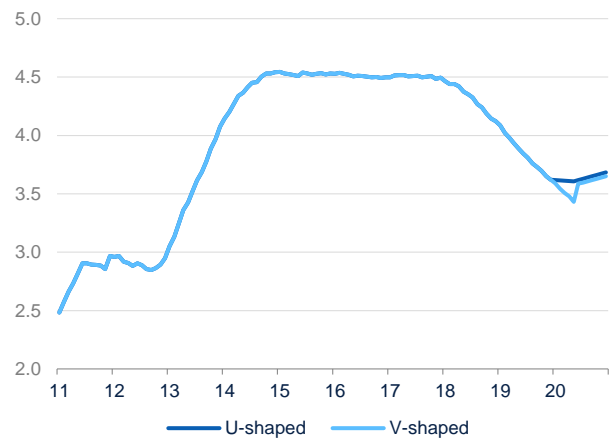
In terms of the liabilities, the level of bank reserves held at the Fed have already declined from \$2.8 trillion in 2014 to \$1.2 trillion today. The substantial decline is the result of three factors. First, the combination of a strong economy and the increased opportunity cost of holding cash at the Fed led banks to lower their reserve balances beginning in 2014. Second, the draw down on reserves accelerated in 2018 once the balance sheet wind down began in October of 2017. To match the decline in assets, liabilities must decline by at least an equal amount, which would imply about a 1:1 rate of attrition. However, in 2018, assets declined \$375 billion while reserves declined by \$515 billion. The difference is explained by the growth in currency in circulation, the last factor. Currency in circulation has increased at a stable pace of around 6.5% over the past five years, consistent with the fluctuations in nominal GDP growth. As a result, currency liabilities at the Fed increased by around \$100 billion, leading to a smaller decrease in assets than what would be implied by the decrease in reserves.

Figure 5. Balance Sheet Assets & Reserves, Annual Change \$ Billion



Source: BBVA Research & FRB

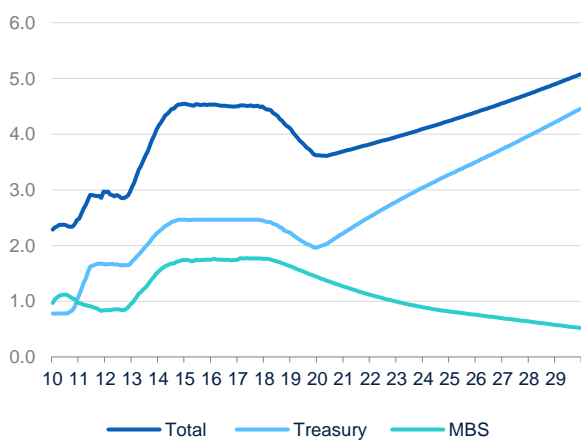
Figure 6. Balance Sheet Scenarios, Assets \$ Trillion



Source: BBVA Research & FRB

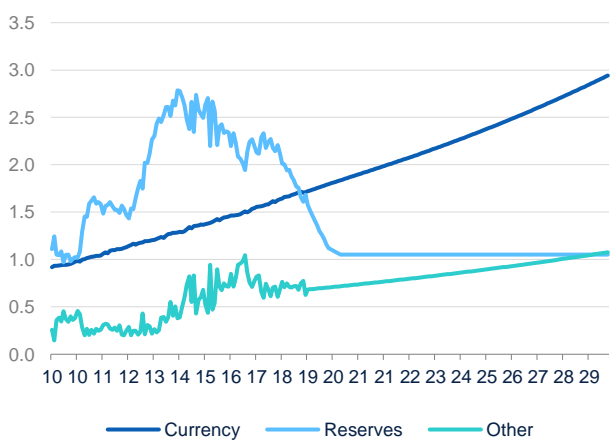
The accelerated decline in reserves may have prompted the Fed to pare down their normalization strategy and consider a more cautious approach. In fact, based on the minutes and the Fed's overly cautious approach to policy normalization, we expect that the Fed will try to engineer a soft landing of its balance sheet as well. This would mean letting assets decline further before levelling off for a short period of time. This will allow currency to continue growing at a market determined rate, but allow the level of reserves to wind down at a slower pace while remaining abundant. After reserves reach a stable level, assets would begin to increase in tandem with growth in currency in circulation. This would mean purchasing Treasury securities outright or possibly reinvesting principal payments in Treasury portfolio above the current caps. As a result, we expect the Fed will pursue a balance sheet normalization path that follows a "U-shaped" rather than the prior consensus of a "V-shaped" path.

Figure 7. Balance Sheet Projections, Assets \$ Trillion



Source: BBVA Research & FRB

Figure 8. Balance Sheet Projections, Liabilities \$ Trillion



Source: BBVA Research & FRB

In the long-run, we still anticipate that the Fed will try to transition to a more traditional portfolio, comprised mainly of government securities. In the review of their balance sheet normalization policy:

Participants commented that, in light of the Committee's longstanding plan to hold primarily Treasury securities in the long run, it would be appropriate once asset redemptions end to reinvest most, if not all, principal payments received from agency MBS in Treasury securities.

This would require the Fed to purchase Treasury securities at a pace equal to the decline in the agency MBS portfolio, plus the growth in currency in circulation. On average, this would imply \$21 billion in purchases per month between now and 2029. Meanwhile, the Fed may decide to conduct sales of MBS if the rundown is too slow or if they decide that maintaining large holdings of MBS is not needed to support the mortgage market.

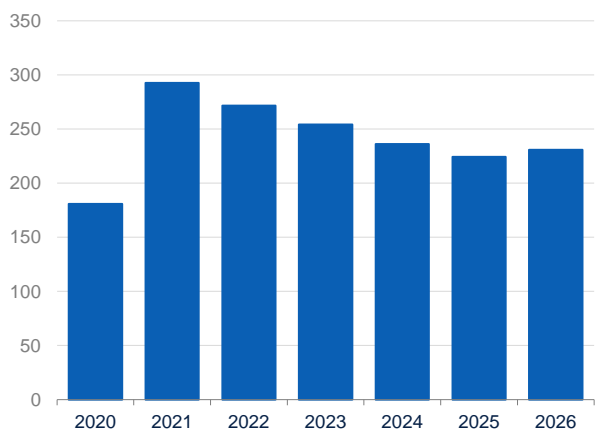
New principled approach not without risks

Although Fed officials believe that the current unwinding of the balance sheet is having a limited impact on financial markets, some participants have commented that the Fed’s ambivalence caused the sharp market correction during 4Q18. In a sense, markets were interpreting the lack of flexibility on the balance sheet as a signal of a more hawkish shift in policy. In the future, adding another dimension to its forward guidance strategy could affect the Fed’s ability to manage its communication and the real economy. However, the move to an abundant supply of reserve should moderate these risks in the medium-term, as evidenced by the rebound in financial markets after the Fed’s abrupt departure from its hawkish stance at the start of 2019.

While moving to a floor system with an abundant supply reserves has many advantages, it could present some risks going forward. In addition, it is not clear if this change will generate a net benefit to the economy or require further fine tuning in the future. First, maintaining a large balance sheet entails communicating to markets the committee’s strategy with respect to its size, composition and expected influence on the real economy.

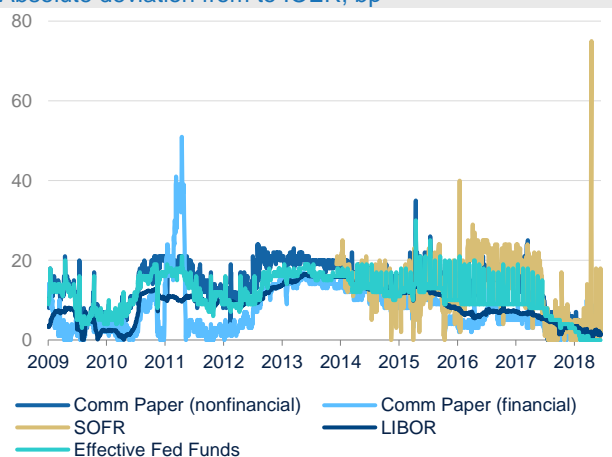
Second, there are concerns that relying on administrative rates for benchmarking when there is an ample reserve supply can reduce peer-to-peer oversight amongst financial institutions, as there would be little incentive to monitor each other if they are not continuously evaluating counterparty risks in the interbank market. However, the failures leading to the 2008 financial crisis suggests this benefit may be overstated.

Figure 9. Projected Purchases of Treasury Securities, Annual \$ Billion



Source: BBVA Research & FRB

Figure 10. Money Market Interest Rate Dispersion, Absolute deviation from to IOER, bp



Source: BBVA Research & Haver Analytics

Third, the floor system may be less effective at transmitting monetary policy to the real economy. While volatility surrounding the administered rates tends to diminish with a floor system, the ability to transfer these rates to money markets and the broader economy tends to be diminished. In fact, Duffe and Krishnamurthy (2016) showed that dispersion among money market rates increased by 10bp after the Fed lifted rates away from the ZLB in 2015. Furthermore, Basel regulations such as the supplementary leverage ratio (SLR) and the liquidity coverage ratio (LCR) could also dampen the pass through if the supply of safe assets fails to keep up with the increased demand.

Fourth, the ability of the Fed to maintain an abundant supply of reserves requires them to pay interest on excess reserves. This is a major shift from the pre-crisis, as the Fed was prohibited from paying IOER. In essence, the policy change moves the system from one that taxed excess reserves to one that subsidizes excess reserves.

Fifth, one could argue that if the Federal Reserve maintains its current policy of primarily investing in U.S. Treasuries, the central bank would be encouraging deficit spending by suppressing the costs associated with expansionary fiscal policy. For example, during the period in which the Fed was utilizing unconventional monetary policy tools, interest rates and inflation remained extremely low despite a strong expansion in bank liabilities and increases in fiscal deficits relative to GDP. This suggests that the policy of abundant reserves could dampen the market signal associated with excessive leverage such as higher borrowing costs. However, there is no guarantee that future expansions of the balance sheet would occur under the same favorable macroeconomic conditions, particularly if demand for U.S. assets dwindles.

One policy that could limit this distortion would be to broaden the asset classes that the Fed would be willing to hold on its balance sheet. The Bank of Japan implemented a Stock Purchase Program in 2002 with some success. However, unwinding these securities was challenging given that, unlike debt securities, there is no maturity date, and thus outright sales are required. Although possible, this policy course would signal an even further departure from conventional operating framework and put the Fed under significant political risk.

Sixth, although high levels of bank reserves are needed to comply with financial regulations, there is a tradeoff between financial stability and bank financing of private activities. To the extent that high levels of reserves end up financing government debt through Treasury holdings by the Fed, there could be lower private lending and investment than in an environment of scarce reserves. In addition, the returns from public spending may be lower than private alternatives. In other words, there could be efficiency losses at the aggregate level of the economy from an abundant reserve system if it distorts resource allocation.

Seventh, it is not clear what would be the best composition of the Fed's Treasury portfolio. A more neutral composition would be a distribution that resembles issuance. However, if a downturn occurs, the Fed may not have sufficient space to increase its holdings of longer-dated securities as it did during the QE programs, which lowered the risk premium. In contrast, a portfolio of short duration, that provides more flexibility during downturns, could create significant market distortions and influence debt issuance from the Treasury.

Bottom Line

Given the challenges the Fed currently faces such as increased financial volatility, slowing domestic and global growth, policy uncertainty, declining business and consumer sentiment, and changes in financial regulation, the move to a floor system seems prudent. The short-term costs of squeezing bank's liquidity and potentially pushing market participants into a scant federal funds market presented a nontrivial risk to financial stability and the Fed's ability to fulfill its dual mandate. As a result, the Fed is poised to end its balance sheet normalization plans well before market participants anticipated with a substantially larger balance sheet. We expect the Fed will begin preparing markets shortly for the transition, and end its balance sheet normalization policy in 4Q19. While prudent in the short-run, the shift in the operational framework and strategy could complicate the Fed's ability to effectively implement monetary policy in the longer-term. If this were the case, the Fed will once again adjust the strategy to pursue a more efficient path.

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