

Why does the Fed do what it does? How could it do better?¹

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The Fed's operating procedures for setting the policy rate are almost incomprehensible, almost surely damaging to financial stability, but fortunately easily brought up to snuff. In this note I consider how the Fed sets the short risk-free nominal interest rate and provides liquidity to banks, other financial institutions and financial markets at home and abroad, and how it could do better.

Why does the Fed target an unsecured interbank rate?

The Fed targets the federal funds rate, which is the average, market-determined interest rate at which banks and certain other institutions lend reserve balances to each other, unsecured, on an overnight basis.

Clearly, with Bank Reserves at: \$1,880 bn on 2018-09-19, of which \$1,787 (on 2018-09-12) were Excess Reserves, the old method of controlling the federal funds rate, by varying the degree of scarcity of reserves though open market operations, is no longer an option. Admittedly, the 'excess' reserves are just reserves held in excess of required reserves. The liquidity requirements of Basel III – the Liquidity Coverage Ratio and the Net Stable Funding Ratio - have artificially and unnecessarily boosted banks' demand for liquid assets during normal times, when markets are orderly and there is no shortage of funding liquidity and market liquidity. Excess reserves will do nicely to meet the Basel III liquidity requirements, especially if they are as generously remunerated as they are in the US today.

It is unfortunate that regulatory requirements force banks to hold emergency levels of liquidity during normal terms. It interferes with the key maturity transformation role of banks, which is to borrow short and lend long. Liquidity, unlike solvency, is a public good. When there is optimism, trust and confidence, almost every asset is liquid. When there is pessimism, mistrust and lack of confidence, only central bank liabilities are liquid. When this happens, the central bank should provide the necessary funding and market liquidity, acting as lender of last resort and market maker of last resort.

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It is rather surprising that the Fed targets an interbank rate, as the banking sector in the US accounts for a smaller share of financial intermediation than in any other advanced economy. In addition, the Federal Funds rate is an interest rate on unsecured transactions. It would make more sense to target a rate that is less likely to be affected by credit risk, say an overnight reverse repo or repo involving sovereign debt or other safe instruments. This anomaly pre-dates the GFC. The Fed should target an overnight repo/reverse repo rate or some similar risk-free short rate. Something like the Secured Overnight Financing Rate (SOFR) might be appropriate. The Fed could set the target range by fixing both an overnight reverse repo and an overnight repo rate.

Since December 16, 2008 the Fed sets a Target Range for the federal funds rate. It started off with the lower end at 0.00% and the upper end at 0.25%. Since September 26 2018 it ranges from 2.00% to 2.25%.

The Fed's double leaky floor system of managing the FF rate

The Fed pursues the target for the federal funds rate using not a corridor or floor and ceiling system but a quite incomprehensible double leaky floor system.

One floor is set by the interest rate on required and excess reserves. Since 27 September 2018 this is set at 2.20%. This may seem strange as it is a rate charged on overnight liabilities of the Fed and therefore should be at or below the bottom or floor of the target range, currently 2.00%, rather than near the top or ceiling of the range, currently 2.25%. It is, admittedly, slightly less strange than was the case between December 16, 2008 and June 16, 2018, when the interest rate on required and excess reserves was equal to the top of the target range.

The second floor is set by the maximum interest rate that the Fed is willing to pay when it borrows overnight from eligible counterparties through what in the US are called overnight *reverse repo* agreements (the ON RRP offering rate). This floor rate is actually (and appropriately) set at the lower end of the Target Range for the federal funds rate, currently 2.00%. The actual interest rate received by the counterparty of the Fed in an ON RRP is in principle determined through an auction process, although the auction only kicks in if total demand exceeds the available supply of Treasuries on the Fed's balance sheet, currently \$2.3 trillion (as of September 19, 2018). Wisely, for a financial system where financial intermediation through financial markets and non-bank financial institutions is dominant, these eligible counterparties include not just depository institutions but also other active participants in the money markets and short-term funding markets. Eligible counterparties include Fed primary dealers, Government-Sponsored Enterprises (GSE, that is, FNMA, FHLMC and the FHLBs) and SEC-registered 2a-7 money market funds. I would extend this to any nationally registered regulated financial institution and to any financial institutions that ought to be nationally registered and regulated but are not (like insurance companies in the US). US subsidiaries of foreign financial institutions should have access also.

Why does the Fed subsidize reserves held with the Fed by approximately 20 bps?

It would be a risk-free profitable business to take checkable deposits from the public at, say, 1.70 percent – rather more than I get on my checking account - and deposit them with the Fed at 2.20 percent. I understand the Fed has prevented just this kind of arbitrage from happening, but it looks very silly indeed.

The ceiling for the federal funds rate should be enforced through overnight repo agreements. This facility is mostly idle. There has been very little tendency until quite recently for the federal funds rate to get near the ceiling of the range. I don't know whether this is something to be concerned about – if it is interpreted as a reflection of the markets judging the target range to be too high.

The Fed should target a safe overnight rate, with the floor set by overnight reverse repos and the ceiling by overnight repos. The interest rate on required and excess reserves should be at or below the ON RRP offering rate.

The Fed should be willing to accept reverse repos and offer repos in any amount at the target zone floor and ceiling rates, 24/7. It should get out of the business of trying to set both price and quantity in the repo and reverse repo markets. The same applies to the Federal Funds market. It should be willing to offer reserves in any amount at the bottom of the target zone.

That would eliminate the private markets for overnight Federal Funds and for risk-free overnight repo and reverse repo, and that would be a good thing because these markets are redundant.

Private markets for federal funds, repos and reverse repos can flourish at any maturity in excess of a day. Also, there can be risky overnight lending and borrowing, secured and unsecured, by private agents. But they are not active players in the determination of the risk-free overnight rate.

The discount rates should be viewed as lender-of-last resort penalty rates. The Federal Reserve Banks offer three discount window programs to depository institutions: primary credit, secondary credit, and seasonal credit, each with its own interest rate. All discount window loans are fully secured. The (overnight) primary credit rate currently stands at 2.75%.

The discount window programs should be available to all nationally registered and regulated financial institutions.

If the Fed has concerns about interest rates at maturities beyond one day, it can intervene through longer-maturity reverse repos and repos or through appropriate open market sales and purchases.

Reserve requirements are a redundant feature under the interest-rate pegging regime and can safely be abandoned.

The term deposit facility should pay interest rates consistent with the forward guidance given about the policy rate.

Bills and bonds

It would be wonderful if the Fed could issue bills or bonds of any duration. It would make its open market operations more symmetric.

When the Fed wants to change the amount of excess reserves it should be able to do so without changing the size of its balance sheet, by issuing or buying back Fed bills or bonds. Instead it had to go through the unnecessary complications of the Supplementary Financing Program, created in the Fall of 2008, which had the US Treasury mopping up excess reserves by issuing Treasury bills. Funds are acquired through the auction of Treasury bills and are placed into an account that the Federal Reserve may use. Using the term deposit facility as an instrument for controlling the size of the stock of reserves would require that the Fed gives up control of the term deposit rates.

Eliminating the ELB

All leading advanced economy central banks “went negative” during the GFC except for the Fed and the Bank of England.

During the next downturn it is virtually guaranteed that the Fed will hit the zero lower bound again. At the very least it should “go negative” to the extent permitted by the ELB, that is zero (the interest rate on currency) minus the carry costs of currency, probably somewhere around 75bps, that is, it should cut the floor of the target zone to -75bps.

This would make life difficult or even impossible for Constant Net Asset Value Money Market Funds, but so be it. It would make unhappy those in the Congress of the USA who believe a negative interest rate on deposits is a tax on depositors and thus a violation of the constitutional principle that only the Congress can impose taxes. Well, I have news for them. By the same logic a positive interest rate on borrowing is a tax on borrowers.

Once at the ELB, the size and composition of the balance sheet of the Fed and forward guidance about the eventual escape of the policy rate from the ELB and about the future size and composition of the Fed’s balance sheet are the only monetary policy instruments. Those are poor man’s policy instruments compared to setting the policy rate freely, without the artificial constraint of the ELB.

The Fed should actively support the abolition of the ELB by getting rid of currency. The doubling of currency in circulation since the beginning of the GFC from \$800bn to \$1,600bn is a highly undesirable subsidy to the criminal community. It facilitates tax evasion, money laundering, terrorism financing, the financing of other criminal activity etc. Currency could be replaced by interest-bearing deposits in accounts managed by banks, S&Ls etc. but guaranteed by the Fed. These interest-bearing checking accounts could be backed fully with deposits

(reserves) at the Fed – a form of 100% fractional reserve banking or the narrowest of narrow banking. With credit cards, debit cards, pre-paid cards, ‘swoosh cards’ Apple Pay, Google Pay, Alipay etc. we could have a centralized digital currency that is not a crypto currency and therefore does not recreate the anonymity problems of currency.

From a technical perspective, all my proposals other than the elimination of currency could be implemented in a week. The abolition of currency could proceed gradually, with the larger denominations de-monetized before the smaller denominations, which could remain in existence a while longer to allow the technologically challenged to continue to use them in honest retail transactions.