The Fed's Balance Sheet, CBDC and a Reminder on the Limits of Limits

Greg Baer | May 25, 2022

In assessing the merits of a central bank digital currency for the United States, the two most important facts to understand are these: (1) a bank deposit is a liability of a bank and funds loans, which are the bank's predominant asset; (2) a CBDC would be a liability of the Federal Reserve and would fund holdings of securities issued by the Department of the Treasury, Fannie Mae and Freddie Mac, which are the central bank's predominant assets. Thus, if consumers and businesses transfer money from deposits to CBDCs, they would stop funding the economy and start funding the government and government-sponsored enterprises.

Most policymakers view this result as a serious problem, and have suggested two potential solutions. First, for this reason and multiple others, a CBDC would not pay interest. Thus, consumers and businesses would have no incentive to hold CBDC in any great volume. This solution is workable in normal times. The problem would arise and become deadly serious, however, whenever there is significant economic stress, prompting a flight to quality. At that point, frightened consumers or corporate treasurers would not care about earning interest for a day or a week, and presumably would move their assets to CBDC because it would be a riskless asset. Such a move would cause a bank liquidity crisis and potentially a financial stability crisis, as maturity transformation would be undermined, because banks would not be able to call term loans to meet short-term deposit redemptions.[1]

The realization that higher interest rates would not stop a run to CBDC has led to a second proposed solution: limiting the amount of CBDC that anyone can hold. Thus, a member of the European Central Bank board has proposed a €3,000 limit on any ECB-issued CBDC.[2] One clear result of this policy would be to limit significantly the use cases for a CBDC: even at a limit ten times that size, businesses would be unable to use it for large payments, and consumers would need to maintain a bank account ready to capture any potential inflow of CBDC that took them over the statutory limit (which is notable, given that some advocate a CBDC as a way to attract to the financial system people who wish to avoid banks).

There is a second reason to doubt the efficacy of this solution, though, which is that limits on governmental reach rarely last, and are often rethought. We have a recent reminder.

In 2014, the FOMC created a standing overnight reverse repurchase agreement (ON RRP) facility. The ON RRP allowed the Fed to borrow money from (and pay interest to) a broad set of nonbanks—including money market mutual funds, Fannie Mae, Freddie Mac, and the FHLBs. Without the ON RRP facility, the Fed was concerned that even if it raised the interest rate paid to banks on reserves, that increase might not have been transmitted one-for-one into the federal funds rate because these nonbanks would continue to lend at lower rates, thereby undermining the Fed's monetary policy goals.

---

[1] To prevent such a crisis, banking regulators could *ex ante* restrict the ability of banks to fund loans with deposits, instead requiring long-term debt, but such action would effectively end the maturity transformation purpose of the banking system and thereby significantly increase the cost of lending and reduce economic growth.

[2] See Fabio Panetta, "Evolution or revolution? The impact of a digital euro on the financial system," February 10, 2021. https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp210210~a1665d3188.en.html

When the ON RRP was created, many were worried that the facility would amplify flights to safety by being an unlimited risk-free investment alternative for nonbanks.[3] Then-Governors Tarullo and Powell prepared a memo describing those risks, which the latter summarized to the Committee as follows:

> Without going through the whole memo, let me just say that the facility raises serious financial-stability concerns and related concerns about unpredictable effects on industry structure. At the same time, it is very important, in my view, to demonstrate convincing monetary control at the outset, and for me, that would mean I would want the ON RRP to be used at liftoff to help assure control. I will also say that the sentence that's been added to the policy normalization principles about phasing out the facility is a very helpful one. I want to emphasize one aspect of why, to me, the financial-stability problem—and it has been said by many around the table, and I think it's right, that the caps would come under pressure during a financial stress event. I do think that's right. But it just seems really unlikely to me that that would ever be a good idea. It's one thing to offer liquidity in a crisis. It's entirely another thing to invite it to come onto our balance sheet. So any sense in the market that there is a home here at all, that there is capacity that will be enlarged, is itself potentially very, very destabilizing. And I think that the Committee needs to lean hard, really, against the perception that that could be the case.[4]

To placate those concerns, use of the facility was capped at the aggregate and individual levels, and the Fed stated that it would "phase it out when it is no longer needed to help control the federal funds rate."[5]

*This week, **eight years after its adoption**, the Federal Reserve was borrowing over **$2 trillion** from these nonbanks to fund its balance sheet.*

How did that come to be? The rationale for the facility morphed from a monetary efficacy justification to a funding justification: as the Fed began to run a massive balance sheet, its funding needs increased, and banks for regulatory and economic reasons balked at holding sufficient reserves to fund the Fed. But the Fed needed funding, so whenever the ON RRP caps came close to binding, they were raised. Now that the facility is familiar, the Fed says about high usage – "we don't have a problem … with what it's doing. It's kind of doing the job we expected."[6]

LOOKING AHEAD

Based on this experience, one might be deeply skeptical of proposals to put binding limits on CBDC accounts. Any limit on holdings will necessarily be arbitrary, and any rationale for that limit could be rethought. Three possibilities already come to mind.

First, while monetizing the debt has historically been seen as bad practice for a central bank, it will always be a temptation. It is not difficult to imagine a future where a nation struggling with budget deficits might be tempted to raise the limit on CBDC holdings knowing that every dollar of increase could fund a Federal Reserve purchase of newly issued Treasury debt.

Second, and alternatively, if the Federal Reserve received an influx of liabilities in the form of CBDC, it could refrain from buying more Treasury and agency securities and instead begin doing with its CBDC what banks do with their

---

[3] Frost, Josh, Lorie Logan, Antoine Martin, Patrick McCabe, Fabio Natalucci, and Julie Remache (2015). "Overnight RRP Operations as a Monetary Policy Tool: Some Design Considerations," Finance and Economics Discussion Series 2015-010. https://www.federalreserve.gov/econresdata/feds/2015/files/2015010pap.pdf

[4] https://www.federalreserve.gov/monetarypolicy/files/FOMC20140730meeting.pdf pp. 68-69.

[5] See "Policy Normalization Principles and Plans," as adopted effective September 16, 2014. https://www.federalreserve.gov/monetarypolicy/files/FOMC_PolicyNormalization.pdf

[6] Transcript of Chair Powell's Press Conference, July 28, 2021. https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20210728.pdf

deposits: making loans. There is already some support for this notion.[7] Even if there were low limits on the amount of CBDC that any individual could hold, the aggregate amount would represent a large pot of money. It does not seem difficult to imagine some policymakers arguing that as this money reflects deposits of the citizenry, it should be used by the Federal Reserve (or some other agency) to fund loans to or equity investments in deserving businesses or individuals. So, if there were $1 trillion of CBDC on the balance sheet of the Federal Reserve, that $1 trillion could be allocated either by the Congress or the Federal Reserve Board to support one government program or another. While the program being funded might vary from time to time, the causes that benefited would likely be popular with some contingents at any given time, and those limits on CBDC holdings might be expected to rise.

Third, the case against a central bank paying interest on CBDCs is compelling, based both on concerns about bleeding deposits from the banking system and on the fact that CBDC is meant to be a digital form of cash. That said, there also are strong advocates for having low- and moderate-income people holding zero-cost accounts directly at the Federal Reserve,[8] and presumably one benefit of such an account could include some or all holders receiving interest – perhaps even an interest rate significantly above market interest rates. Of course, interest payments would attract still more liabilities to the Federal Reserve's balance sheet, requiring it to acquire still more assets, whether in the form of Treasury or agency debt (first point above) or loans or other private-sector financing (second point above).

CONCLUSION

Those proposing limits on CBDC as a way of mitigating a fundamental problem with CBDC issuance may wish to brush up on their Greek mythology.

---

[7] https://lpeproject.org/wp-content/uploads/2021/01/Peoples.Ledger.DRAFT_.pdf
[8] https://www.banking.senate.gov/newsroom/minority/brown-introduces-new-legislation-to-help-hardworking-americans-in-the-coronavirus-relief-package

REFERENCES

Fleming, Michael, Haoyang Liu, Rich Podjasek, and Jake Schurmeier, 2021. "The Federal Reserve's Market Functioning Purchases," Staff Report No. 998, December 2021, Federal Reserve Bank of New York.

Garbade, Kenneth D. and Frank M. Keane,2020, "Market Function Purchases by the Federal Reserve," Federal Reserve Bank of New York *Liberty Street Economics*, August 20.

Group of Thirty, Working Group on Treasury Market Liquidity, 2021, "U.S. Treasury Markets: Steps Toward Increased Resilience," July.

Hubbard, Glenn et al., 2021, "Task Force on Financial Stability,", Brookings Institution and Chicago Booth School of Business, June.

Kovner, Anna and Antoine Martin, 2020, "The Official Sector's Response to the Coronavirus Pandemic and Moral Hazard," Federal Reserve Bank of New York *Liberty Street Economics*, September 24.

Nelson, Bill and Pat Parkinson, 2022, "A Major Limit on the Fed's Crisis Toolkit: Shame," January 25.

Securities Industry and Financial Markets Association (SIFMA), 2021, "Improving Capacity and Resilience in US Treasury Markets, Part I," March 24.

U.S. Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Reserve Bank of New York, U.S. Securities and Exchange Commission, and U.S. Commodity Futures Trading Commission, 2021, "Recent Disruptions and Potential Reforms in the U.S. Treasury Market: A Staff Progress Report," November 8.