

Economic Brief

July 2022, No. 22-26

Central Bank Digital Currencies and Regulatory Alternatives: the Case for Stablecoins

By [Bruno Sultanum](#)

Central bank digital currencies (CBDCs) have been in the spotlight as the Federal Reserve and other central banks explore introducing them. At the same time, *stablecoins* are also growing in popularity, and many people including politicians and regulators have started discussing how to properly regulate their issuance and use. In this article, I discuss the question of whether a regulatory framework for stablecoins — where regulated banks can issue stablecoins backed 100 percent by deposits at the central bank — could serve as an alternative to issuing CBDCs.

Stablecoins are privately issued digital currencies generally backed by safe and liquid assets, with their value typically pegged to the U.S. dollar. While introducing CBDCs has received more attention than regulating stablecoins, I argue in this article that privately issued stablecoins could be equivalent to CBDCs — particularly in the U.S. — under some conditions. That is, in the presence of a good regulatory framework for stablecoins, CBDCs could be considered "inessential" in the terminology of monetary theory discussed in the 1973 book chapter "[On the Foundations of Monetary Theory](#)," and later developed in the 2010 book chapter "[The Mechanism-Design Approach to Monetary Theory](#)."

I divide the article into three parts. In the first section, I discuss the potential regulatory framework for stablecoins. In the second section, I describe how CBDCs could become inessential in the presence of such a regulatory framework. In the third section, I provide some final thoughts and conclude.

Regulatory Framework for Stablecoins

In November, the President's Working Group on Financial Markets (PWG), the Federal Deposit Insurance Corp. (FDIC) and the Office of the Comptroller of the Currency (OCC) released a [joint report on stablecoins](#), which highlights that stablecoins could improve the

U.S. payment system but also create financial risks if unregulated. In general, realizing any benefits from stablecoins will likely require regulation. Unregulated stablecoins would not be easily trusted, hence limiting their use as means of payment.

The report's main recommendation is for Congress to enact new legislation to allow for regulators to oversee stablecoins. The report says such regulation should:

- Require stablecoin issuers to be insured depository institutions
- Give flexibility for regulators to impose restrictions on wallet providers (a form of custodian for digital assets)
- Promote interoperability among stablecoins and other measures to prevent market concentration and potentially restrict data collection

The last point likely implies that stablecoins pegged to the U.S. dollar would have to be redeemable in U.S. dollars, either directly or through deposits in the bank issuing the stablecoin. Two items might be worth adding to the above list relating to implementing such regulation: a two-tiered system and appropriately tailored regulations.

Two-Tiered System of Stablecoins

Consider first a two-tier system for stablecoins:

- One tier backed 100 percent by deposits (or reserves) at the Fed. (This could also be described as synthetic CBDC.)
- One tier backed by a mix of liquid and safe assets.

I refer to stablecoins backed by reserves as synthetic CBDC because the term synthetic (in finance) refers to a combination of assets that pays the exact return of another asset. For example, a synthetic bond XYZ can be created by buying a risk-free bond and selling a credit swap on bond XYZ. Thus, the stablecoin is a synthetic CBDC because it is fully backed by reserves and can be redeemed as such.

One counterargument to creating a two-tier system might be that if the Fed were to regulate stablecoins as proposed by the aforementioned report, a depository institution could make them fully backed by reserves unless regulated otherwise, making a second tier unnecessary.

That said, a two-tiered system directly acknowledges that regulation would create a framework for synthetic CBDCs and allows for further simplification of regulatory requirements for institutions issuing only stablecoins backed 100 percent by reserves. It would also preserve the ability of issuers to create stablecoins not fully backed by reserves. That would naturally be the case, for example, for stablecoins not pegged to the U.S. dollar.

Appropriate Levels of Regulation

The second point to consider is that the regulatory requirements for depository institutions whose business models revolve around stablecoins may not need to be severe. This is because, in contrast to regular banks operating on a fractional reserve regime, there is little risk and little maturity mismatch in providing only 100 percent-backed stablecoins. In fact, overly strong regulations could pose their own risks by creating a barrier for entry and competition in the sector.

The Inessentiality of Central Bank Digital Currencies?

In practice, the Fed already issues a form of CBDC to depository institutions in the form of central bank deposits, commonly called reserves. This digital money differs from the bank deposits generally available to the public. Bank deposits for the public are not backed solely by reserves, but rather a mix of assets bearing different degrees of risk. One could think of reserves instead as an intermediary good, which produces the bank deposits available to the public when combined with other assets.

For most smaller depositors — which are protected by deposit insurance — the distinction between deposits backed by risky assets and reserves is meaningless. Bank deposits are as good as deposits at the Fed. However, large depositors and depositors skeptical of the FDIC's ability to provide insurance may still prefer to hold reserves. A natural question, then, is whether and how to provide depositors with access to reserves. Mechanically, there are basically two ways:

- Directly by creating a CBDC
- Indirectly via stablecoins backed by reserves

Let me define CBDC as "essential" if it allows policymakers to achieve a goal that cannot be achieved with stablecoins backed by reserves. It is challenging to identify such a goal. For example, if the goal is to make stablecoins exchangeable, that could be done with regulation. Paying interest on stablecoins could be accomplished by paying interest on the reserves backing the stablecoins and (assuming entry costs are low) allowing competition to drive interest rates close to the ones on reserves. The rates paid to reserves backing stablecoins could even be different than the ones paid on regular bank reserves. As for making them accessible to a large share of the population, this could be done by subsidizing or otherwise incentivizing banks to open stablecoin accounts for financially marginalized households.

There are some concerns with having only stablecoins and no CBDC, but those concerns could potentially be alleviated with regulation as well. One concern highlighted in the PWG/FDIC/OCC report, for example, is that a few market participants could end up controlling the industry due to network effects. While a valid concern, economists have considered state *ownership* unnecessary in most industries, with regulation and contracting taking their place.¹

The legislation supported in the aforementioned report would already include a clause providing the authority to take action to prevent market concentration. And lowering entry costs by reducing the regulatory burden of banks created solely to issue stablecoins would likely go in the direction of increasing competition among issuers.

Another concern is data collection, specifically consumers' private information such as their purchasing behavior. However, authorities could prevent data collection with regulation as well, and the issuance of CBDC could also require the regulation of wallet providers to prevent data collection.

The bottom line is that appropriate regulation may offer a path whereby stablecoins become effectively equivalent to the use of CBDC — when they are issued by regulated institutions and backed by reserves.

Concluding Comments

As central banks think about both CBDCs and stablecoins, this article argues that there may be a pathway to create an effective "synthetic" CBDC in the form of stablecoins. More generally, the discussions around the introduction of CBDCs should always include an evaluation of the possibility of considering well-regulated stablecoins as a viable (and possibly preferable) alternative.

Bruno Sultanum is an economist in the Research Department at the Federal Reserve Bank of Richmond.

Additional Resources

Follow the Series

- [Are There Compelling Reasons to Consider a Central Bank Digital Currency for the U.S.?](#)
- [A Historical Perspective on Digital Currencies](#)
- [Why Stablecoins Fail: An Economist's Post-Mortem on Terra](#)
- [Central Bank Digital Currencies and Regulatory Alternatives: the Case for Stablecoins](#)

Related Materials

- *Economic Brief*, March 2021: [Should the Fed Issue Digital Currency?](#)
- *Economic Brief*, May 2021: [Should Central Banks Worry About Facebook's Diem and Alibaba's Alipay?](#)
- *Econ Focus*, Second Quarter 2022: [Fed Eyes Central Bank Digital Currency](#)

- *Econ Focus*, Fourth Quarter 2021: [When Will Firms Issue Digital Currencies?](#)
- *Speaking of the Economy*, April 2022: [The Fed's Role in Payments Innovation](#)

¹ For example, see the 1998 paper "[State Versus Private Ownership](#)."

To cite this Economic Brief, please use the following format: Sultanum, Bruno. (July 2022) "Central Bank Digital Currencies and Regulatory Alternatives: the Case for Stablecoins." *Federal Reserve Bank of Richmond Economic Brief*, No. 22-26.

This article may be photocopied or reprinted in its entirety. Please credit the author, source, and the Federal Reserve Bank of Richmond and include the italicized statement below.

Views expressed in this article are those of the author and not necessarily those of the Federal Reserve Bank of Richmond or the Federal Reserve System.



Subscribe to Economic Brief

Receive an email notification when Economic Brief is posted online:

Contact Us

RC Balaban

(804) 697-8144

