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Central Bank Digital Currencies

The recent proliferation of private digital currencies or cryptocurrencies unsupported by any government authority, such as Bitcoin, has led to questions of whether the Federal Reserve (Fed) should create a central bank digital currency (CBDC)—a "digital dollar" that would share some of the features of these private digital currencies. Although no major central bank has issued a CBDC to date, this In Focus describes how foreign central banks, the U.S. Treasury, and the Fed are approaching the issue. It also examines policy issues raised by a CBDC. For more detail, see CRS Report R46850, *Central Bank Digital Currencies: Policy Issues*.

Background

Contrary to some of its creators' expectations, crypto has not become widely adopted for payments—its value is too volatile to serve as an efficient means of payment, transaction costs are too high, it is not legal tender, and it is not backed by the "full faith and credit" of a government. A CBDC, proponents believe, could overcome these barriers while taking advantage of the technology pioneered by crypto to create a more efficient, central-bank-backed digital payment system.

Within the mainstream financial system, digital payments are already widespread in the United States. However, digital payments are not always as fast, inexpensive, or ubiquitous as some would desire at present. A CBDC would presumably allow for real-time payments. Real-time payments are growing rapidly, but not yet ubiquitous, in the United States—although they may become so after the Fed rolls out FedNow, its planned real-time settlement system, in mid-2023. By contrast, developing a CBDC would take several years of significant IT investment.

Federal Reserve and Treasury Actions

In January 2022, the Fed released a report on CBDC, which it defined as "a digital liability of a central bank that is widely available to the general public." In the Fed's view, "CBDC transactions would need to be final and completed in real time, allowing users to make payments to one another using a risk-free asset. Individuals, businesses, and governments could potentially use a CBDC to make basic purchases of goods and services or pay bills, and governments could use a CBDC to collect taxes or make benefit payments directly to citizens."

The report identified four characteristics that it argued were necessary "to best serve the needs of the United States," saying that a CBDC should be (1) privacy-protected to the extent compatible with deterring criminal use, (2) intermediated (i.e., retail services would be offered through financial institutions), (3) widely transferable among holders, and (4) identity-verified (i.e., not anonymous). The report took no position on several design features, such as whether the CBDC would pay interest, whether it could be used offline, and whether there would be size limits on transactions or holdings. The report stated that the Fed "does not intend to proceed with issuance of a CBDC without clear support from the executive branch and from Congress, ideally in the form of a specific authorizing law." The report "is not intended to advance a specific policy outcome and takes no position on the ultimate desirability of a U.S. CBDC." The Fed has also launched pilot programs (Projects Hamilton and Cedar) to build technical capacity in case a decision is made to adopt a CBDC.

In March 2022, President Biden issued Executive Order 14067 on digital assets, which stated that the U.S. government "should prioritize timely assessments of potential benefits and risks [of a U.S. CBDC] under various designs to ensure that the United States remains a leader in the international financial system." Pursuant to that order, the Treasury Secretary, in consultation with various executive branch officials, issued a report on the potential implications of adopting a CBDC in September 2022. That report did not take a position on whether to pursue a CBDC, but it created an inter-agency working group led by Treasury to further consider the issue. In addition, Treasury issued a framework for international engagement, the White House Office of Science and Technology Policy issued a technical evaluation of CBDC in September 2022, and the Attorney General issued a (non-public) opinion on whether legislative changes would be necessary to issue a CBDC.

Design Considerations

A CBDC would allow holders to store value and make payments digitally and would be backed by the Fed (as is the case for physical currency), but other features are unresolved. Crypto generally records transfers on public, decentralized (or *distributed*) ledgers stored using *blockchain* technology. Often individuals' accounts are protected using cryptography and identified with pseudonyms. (For background, see CRS Report R47425, *Cryptocurrency: Selected Policy Issues*.) It is unclear which of these features would be desirable in a CBDC or to what extent a CBDC might be built upon existing payment systems instead.

From an end-user perspective, CBDC proposals range from a payment system similar to the status quo to one that is fundamentally different. At one end of the spectrum of proposals, a CBDC accessible only to banks may differ only slightly from the current system given that wholesale payment systems are already digital. At the other end, proposals for consumers to be able to hold CBDCs in accounts at the Fed would fundamentally change the role of the Fed and its relationship with consumers and banks. The Fed's report envisioned a middle ground where end users would access CBDC and related services through financial institutions. Thus, depending on its attributes, a domestic CBDC could potentially compete with crypto, foreign CBDCs, private payment platforms, or banks. CBDC proponents differ as to which of these they would like it to compete with. CBDCs are more likely to compete with crypto as a payment means for legal commerce than in their other current uses (e.g., as speculative investments or as payment means for illicit activities).

International CBDC Initiatives

According to the Atlantic Council (a DC-based think tank), 114 jurisdictions around the world were engaged in CBDCs at some level (researching, piloting, or launching) at the end of 2022. The Bahamas, Jamaica, Nigeria, and the Eastern Caribbean Central Bank are among a handful of jurisdictions that have launched CBDCs. Although no major economy has fully launched a CBDC, China is the furthest in its digital currency development. China has piloted the digital yuan (e-CNY) in 15 provinces and across a multinational financial framework. Several central banks in advanced economies are also researching and piloting CBDCs. For example, the European Central Bank is conducting a two-year investigation phase on a potential digital euro, the Bank of England published a consultation paper on a potential digital pound, and the Swiss National Bank has tested a wholesale CBDC. The "Innovation Hub" at the Bank for International Settlements (BIS, an international organization of central banks) is working with a range of countries on CBDC research projects, including cross-border pilots.

Central banks around the world are interested in CBDCs for a variety of reasons, including greater control of the economy, stronger surveillance of financial transactions, consumer preferences for digital payments, and increased access to financial products for underbanked populations. According to a survey of central banks conducted by the BIS in late 2021, central banks are increasingly interested in using CBDCs to improve the efficiency of cross-border payments. Countries such as China, Iran, Russia, and Venezuela also view CBDCs as a way to reduce reliance on the dollar and reduce vulnerability to U.S. sanctions.

Issues for Congress

In the United States, unlike some other countries that are considering CBDCs, the existing payment system features trusted methods for digitally delivering funds. Although real-time payments (i.e., instant settlement) are not yet ubiquitous, they are expected to be soon. Whether a CBDC would achieve equivalent or better performance at lower cost remains unknowable until detailed proposals have been made. Cross-border payments have been identified as offering greater potential gains in cost and speed, but they raise more legal and practical challenges than domestic use.

A major policy consideration is the extent to which a CBDC would displace private activity. If available to consumers, CBDCs could partially displace crypto and maintain government's central role in issuing money—whether this is desirable depends largely on an individual's view of those currencies. In the more expansive vision for CBDCs, anyone could hold CBDCs in a Fed account for, at a minimum, making payments or storing value. This would mark a fundamental shift in the Fed's role—the Fed does not provide retail services to the public currently—and would have the potential to displace private payment systems and banks, which could affect the availability of credit to households and businesses. From a typical economic perspective, government provision of private goods is desirable only if there is a market failure or the service has the characteristics of a public good. It is unclear whether the U.S. payment or banking systems suffer from market failures that a CBDC could address.

Some proponents believe a CBDC could promote financial inclusion, but that would depend largely on whether the CBDC would be less expensive and easier to access than banking services. (Under current law, the Fed would have to provide the CBDC at cost.) However, a CBDC could also harm underserved populations if it led to reduced acceptance of less costly payment options, such as cash.

Some proponents claim that because bank runs pose systemic risk, a partial shift from private bank accounts to CBDC would increase financial stability. In contrast, others assert CBDC could make bank runs more likely by offering an alternative to bank accounts that people could switch to during times of bank distress. Cyberattacks also pose systemic risk, and it is unclear whether a CBDC would make the financial system more or less resilient to them.

A CBDC that provided complete anonymity would seemingly be incompatible with current policies designed to curb money laundering and other illicit activities. Thus, it may be necessary to track and store information about CBDC users and their transactions. This would reduce individuals' privacy but might be more effective at preventing illicit activity. Dealing with privacy implications and technical challenges in rolling out new technology would expose the Fed to reputational risk, potentially bringing into question its political independence, which is viewed as beneficial to monetary policy. However, proponents argue that a CBDC would improve the effectiveness of monetary policy because it could transmit interest rate changes directly to consumers—including, potentially, negative interest rates if CBDCs displaced cash.

CBDC initiatives in other countries could have implications for the United States. For example, some Members of Congress have expressed concerns that, if a major central bank successfully develops a CBDC that can be used for cross-border transactions, the use of the U.S. dollar globally could decline, challenging the status of the U.S. dollar as the world's dominant reserve currency.

In the absence of congressional action, no consensus has yet emerged within the Fed or Administration on whether to adopt a CBDC after years of debate. If desired, Congress could hasten or prohibit the adoption of a CBDC through legislation. In the meantime, bills have been introduced to address the potential effects on the dollar and the international financial system of other countries, such as China, developing CBDCs.

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