Issue Brief: Central Bank Digital Currency (CBDC)

Background

As the public awareness of Bitcoin and other digital assets has grown, the idea of creating a Central Bank Digital Currency, also known as a CBDC, has been gathering momentum in Washington. In January of 2022, the Federal Reserve Board of Governors published a research paper titled "Money and Payments: The U.S. Dollar in the Age of Digital Transformation."[1] The purpose of this research paper is to serve as "the first step in a public discussion" between the Federal Reserve and the public about the merits of a CBDC. In the paper, the Federal Reserve Board acknowledges that there are both benefits and risks to creating a CBDC and does not endorse a specific policy outcome. The paper concludes by soliciting public comments and noting that the Board would "only pursue a CBDC in the context of broad public and cross-governmental support."

What is a CBDC?

The Fed defines a CBDC as **"a digital liability of a central bank that is widely available to the general public."** While Americans are already accustomed to holding money in digital form – as bank deposits recorded as computer entries on commercial bank ledgers – a CBDC differs from bank deposits in that it is not a liability of any commercial bank, but of the Federal Reserve itself. Because it is a liability of the central bank, it is a form of central bank money, and can be seen as a **digital analog of paper money.** It would be considered legal tender.

A CBDC would be issued by the Fed and held by consumers in digital wallets that are offered by banks or regulated non-banks (including credit unions and fintechs). Commercial banks would not hold CBDC on their balance sheets. Banks could only lend against CBDC balances if the CBDC were deposited into a bank account, thereby converting it into commercial bank money and a liability of the bank.

How does CBDC Differ from Cryptocurrencies?

The Boston Fed and MIT collaborated in experimental research on the design of a possible CBDC, known as Project Hamilton.[2] In their experimental design, the **CBDC used cryptographic technology but transactions between wallets were verified by a centralized processor (the central bank).** This differs from popular cryptocurrencies like Bitcoin that rely on a decentralized network of validators (Bitcoin miners), who validate transactions in the hope of being rewarded with Bitcoin. So, while the underlying technology may be similar, a CBDC would likely have a centralized ledger maintained by the Federal Reserve rather than a distributed ledger maintained by system users.

Many cryptocurrencies values are set by supply and demand and are prone to dramatic fluctuations. Stablecoins, by contrast, are cryptocurrencies that are pegged to the value of a specific currency or commodity. They are often used to transact between other cryptocurrencies. To maintain their stable value, private stablecoin issuers typically hold a basket of the asset they are pegged to liquid securities, which earn a yield for the issuer. **A CBDC would not be a stablecoin.** No underlying basket of securities would be necessary to maintain the value of a CBDC because as legal tender and a liability of the Federal Reserve, its value would be established by fiat.

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[1] Board of Governors of the Federal Reserve System, *Research & Analysis*, "Money and Payments: The U.S. Dollar in the Age of Digital Transformation" (January 2022), available at: https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf.

[2] *See* Federal Reserve Bank of Boston, "Project Hamilton Phase 1 A High Performance Payment Processing System Designed for Central Bank Digital Currencies" (February 3, 2022), available at: https://www.bostonfed.org/publications/one-time-pubs/project-hamilton-phase-1-executive-summary.aspx.

Drawbacks of a CBDC

ICBA believes a CBDC, as currently proposed, presents several serious risks to the financial system and community banks. These risks include:

1. **Loss of Deposits/Reduced Access to Credit** – Because banks would be unable to lend against customer deposits stored in CBDC wallets, the capacity of community banks to lend in the communities they serve would be decreased.
2. **Privacy/Cyber Security –** A CBDC would require a public record of all transactions conducted in CBDC to be maintained by the central bank, significantly undermining the privacy of consumers. The Federal Reserve's role as central processor of the CBDC ledger would dramatically increase its profile as a target for hackers – including by sophisticated criminal gangs and hostile nations. If the CBDC was disrupted by hacking, it could undermine confidence in the dollar as a global reserve currency.
3. **Gateway to Public Banking –** While the current proposal is for a CBDC to be intermediated through wallets offered by financial institutions and regulated non-banks, a CBDC may be the first step towards direct customer accounts with the Federal Reserve. This potential disintermediation of banks would have a disastrous effect on the availability of credit, particularly to the small businesses served by community banks.
4. **Cost of Compliance –** In an intermediated model, banks would be saddled with all of the customer service, know your customer (KYC), anti-money laundering (AML), privacy protections, sanctions screening and other compliance burdens with no clearly identified revenue stream to compensate banks for these services. Because the Fed has proposed that banks would compete with regulated non-banks in an open market, community banks would be at risk of losing customers to wallets offered by less regulated companies.
5. **Effects on Monetary Policy –** The introduction of CBDC could damage the Federal Reserve's ability to conduct monetary policy and interest rate control by altering the supply of reserves in the banking system. Because a liability of the central bank is essentially riskless, depositors may prefer CBDC over bank deposits in a crisis, leading to runs.
6. **Uncertain to Achieve Promised Benefits –** While advocates of a CBDC claim it will enable faster payments and increased financial inclusion, it is unclear that a CBDC is the best tool to reach these goals. Current initiatives like FedNow may be more effective than a CBDC at reducing cost and increasing speed in the payments system. Fees and technological barriers seem likely to prevent access to a CBDC by the underbanked.

Potential Benefits of a CBDC

On the other hand, the Federal Reserve's research paper and advocates of a CBDC have cited the following potential benefits of creating a CBDC:

1. **Free of Credit and Liquidity Risk –** Giving consumers direct access to central bank money would allow them to transact without worry about credit and liquidity risk.
2. **Cross-Border Payments –** Advocates claim that CBDC could reduce the cost and friction of cross-border payments.
3. **Financial Inclusion –** Advocates of a CBDC say that it could promote financial inclusion by allowing low-income individuals to transfer money or receive payments digitally, without having to pay the fees associated with a traditional deposit account or for remittances. Advocates argue that if a CBDC had existed in 2020, the relief payments in response to the COVID pandemic could have been distributed more quickly and equitably to the unbanked and underbanked.
4. **Competitiveness –** As other central banks worldwide consider creating a CBDC and as stablecoins gain wider adoption, a U.S. CBDC could help the dollar stay competitive and retain its status as a global reserve currency.