

Payments Executive Brief: Central Bank Digital Currency (CBDC) Primer

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As referenced in ICBA's [separate brief on cryptocurrency](#), a central bank digital currency is a digital form of a fiat currency that is issued and regulated by a monetary authority of a country or region. In the U.S., this also has been coined the "digital dollar."

As you know, there are currently two forms of central bank money in America: paper currency and money held by institutions on deposit at the Federal Reserve Banks. CBDC would be a new, third form—a "digital form of central bank money that is different from balances in traditional reserve or settlement accounts."

CBDC is still a loosely defined term that can encompass all the different—and primarily theoretical and experimental—possible forms. Researchers at central banks around the world are evaluating which use cases and characteristics may be viable and beneficial for their populations and economies. [See sidebar.]

The Federal Reserve's Exploration of CBDC

On August 13, 2020, Federal Reserve Governor Lael Brainard [gave a speech](#) where she opened up the topic of a U.S. CBDC, stating, "Like other central banks, we are continuing to assess the opportunities and challenges of, as well as the use cases for, a digital currency, as a complement to cash and other payments options." In addition, she emphasized experimental efforts conducted to date and those planned in the coming months. Specifically, she unveiled:



The [Federal Reserve Bank of Boston](#) is partnering with the Massachusetts Institute of Technology (MIT) to jointly build and test a hypothetical digital currency for general purpose use.

The preliminary phase is intended to find out what sort of architecture is needed to support a possible digital version of the U.S. dollar as a medium of exchange. It will examine how to support the scale, security, speed, and other factors necessary for such an endeavor. The research will be published as open-source so other central banks and academics can learn from the experiments.

Initial work from this effort is set to publish in mid-2021.



No formal plans for piloting CBDC have been developed yet.

The Federal Reserve has not committed to building a central bank digital currency, but it has expressed a commitment to continue learning about the technologies and working with other central banks to evaluate all the pros and cons. There will likely be more years of research and debate—and work with legislators and regulators—before any decision is made.

Central Bank Digital Currency: Developments Around the Globe

CBDC has heated up around the world: the [International Monetary Fund](#) estimates that upwards of 50 central banks are exploring this form of currency. To date, two central banks are now live and numerous others are in late-stage pilots.



BAHAMAS – The Bahamas launched the "Sand Dollar" as the world's first fully executed CBDC, backed on a one-to-one ratio by the Bahamian dollar, which ties back to the U.S. dollar.



CAMBODIA – Just 10 days after the Bahamas launched its CBDC, the National Bank of Cambodia entered the market with its blockchain-based [Bakong system](#). The country's central bank will back these transactions by both its fiat currency, the riel, and the U.S. dollar.



CHINA – China launched a pilot for its DC/EP (digital currency/electronic payments) earlier this year in Shenzhen. Fan Yifei, the deputy governor of the People's Bank of China, announced [preliminary data](#) at SIBOS 2020 revealing that:

- 113,000 consumer digital wallets and 8,859 corporate digital wallets were opened between April and August 2020.
- Consumer and corporate users exchanged \$162 million across 3.1 million digital yuan transactions. The bank has also uncovered almost 7,000 use cases so far.



EUROPEAN UNION – As of November 2020, the European Central Bank (ECB) is in the active phase of "listening and experimentation," according to [Fabio Panetta](#), a member of the ECB's Executive Board. To further that point, on November 1, 2020, ECB President Christine Lagarde announced a [public survey](#) to learn more about whether citizens of the European Union will support a digital version of the euro.



JAPAN – The Bank of Japan [reportedly](#) intends to start trialing its digital yen in the spring of 2021.



SOUTH KOREA – The Bank of Korea has been running a multi-phase pilot that began in February 2020. Most recently, [the bank said](#) it will be rolling into the final phase of its exploration—a live trial of its digital won—at the start of 2021.

This is only a snapshot of extensive global efforts around CBDC. With this much activity on a global scale, CBDC will remain a key topic in the U.S. for the foreseeable future.

CBDC FAQs

As with any new payments concept, CBDC comes with many questions around its value, implementation, and considerations. ICBA compiled a list to offer an at-a-glance summary of what we know to be true today and what warrants community bank focus.



How does CBDC differ from other types of money?

It is all a matter of liability. A CBDC would be a liability of the central bank, whereas commercial bank money—the money you/customers keep in an account—is a liability of the bank.



How does CBDC differ from other forms of cryptocurrency?

Because it is backed by a central bank, it is more stable than a market-based cryptocurrency. For more information, see [ICBA's Cryptocurrency Executive Brief](#).



Why now? What is driving this focus on CBDC?

There are several key reasons why CBDC has become a key topic:

1. The entrance of “stablecoins,” or a less volatile form of cryptocurrency pegged to a fiat currency like the dollar, a basket of currencies, or even gold. When Facebook put forth Libra as such a proposal in July 2019, central banks around the globe took notice because the size of Facebook’s network could make it systemically important overnight.
2. Increasing consumer interest. Researchers at Cambridge University revealed in their 3rd Global Cryptoasset Benchmarking Study an estimated “101 million unique cryptoasset users across 191 million accounts” in Q3 2020, a 189 percent increase in the total number of users compared to 2018 estimates. In addition, a June 2020 survey by Fidelity Investments found 60 percent of respondents have “a neutral or positive perception towards digital assets.” It also revealed that more than 6 in 10 “feel digital assets have a place in portfolios.”
3. Global competition. As noted previously, central banks around the world have started experimenting with CBDC, and the U.S. would not want to fall behind in this new technological and economic arms race, with possible consequences including a diminished role for the dollar as the global reserve currency.
4. COVID-19 impacts. More people are using digital payments in 2020 because of fears about the novel coronavirus circulating on cash or other hard payments infrastructure, like PIN pads, or simply by shopping in-person. Digital payments enable consumers and businesses in this socially distant environment, and there has been tremendous growth in digital payments adoption this year.
5. Payments modernization. CBDCs could provide a new infrastructure for innovation in the digital age, and some believe they may be as transformative as the internet.



Why should community banks care about or be interested in CBDC? What are the benefits?

Proponents of CBDCs argue that digital currencies can make payments much more efficient by combining instantaneous transactions with the finality of settling in central bank money. Others also contend that the traceability of CBDCs will discourage financial crimes such as money laundering and boost the tax base because fewer transactions will go un- or underreported (e.g. “paying someone under the table.”) Additional advantages include a new digital solution for the un- or underbanked.



What are the risks of CBDC?

There are concerns about the security of the system and the potential for infiltration. There are also unresolved questions about consumer protections and the loss of privacy, because CBDC will need to have some degree of traceability to prevent double-spending and counterfeits and to guard against financial crimes (e.g., money laundering and terrorist financing). In addition, as new innovations push forward financial services, there are bound to be new, and unanticipated, problems and disruptions.



What is the timing on a U.S. plan around CBDC?

As the Federal Reserve has shared, the U.S. has made no decision about moving into production or pilot. The work being conducted by the Federal Reserve Bank of Boston is technical research, and the Reserve Bank anticipates publishing its first findings and code in mid-2021.

4 Steps Community Banks Can Take to Stay Informed on CBDC

While discussions of CBDC are in their infancy in the U.S., this topic will remain of keen interest to regulators and legislators. Community banks can focus on staying up to speed on developments in this space to ensure they are prepared if and when CBDC takes a firmer hold in our payments system.

1

Monitor for updates from ICBA. Stay engaged by reading ICBA bulletins and news articles, joining educational forums, and participating in industry committees or work groups. In addition, share new information with your full team and employees. As the world of payments grows more complex, community banks need a knowledgeable staff informed about new developments.

2

Participate in industry organizations and initiatives that help shape the future of payments. In addition to engaging with ICBA, join the FedPayments Improvement Community and the FedNow Community. Both are free to join and help community banks more directly engage with leaders in key Federal Reserve activities. What’s more, keep an eye on the work coming out of the Federal Reserve Bank of Boston, which will provide insights into Reserve Bank thinking around CBDC.

3

Continue to advance your digital payments strategy. The debate about CBDC underscores the growth of the digital economy and the need for the payments industry to provide the products and services to support a variety of mobile and digital needs for consumers and businesses. Whether or not the U.S. releases a digital dollar, your customers will continue to demand a mix of digital solutions for all their payment needs. If it ultimately comes, the goal will be to have CBDC complement the existing suite of services you’re offering. You can leverage [ICBA's interactive assessment tool and guide](#) to carve out next steps in your digital payments plan.

4

Connect with the ICBA payments team. Do you have additional questions, thoughts, or concerns on CBDC? Reach out to our [payments team](#) to ask questions or express your concerns about the potential impact of CBDC on community banks.