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FX Focus

Digital USD: time to go paperless?

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Currencies & Economics - United States

- The Fed released its white paper on a potential digital USD
- Protecting the international role of the USD is cited as an advantage, among others
- The next few months will decide whether the Fed will actually proceed; if it does, a digital USD is still long away from fruition

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The Federal Reserve finally released a briefing paper on a potential digital USD. After a lengthy delay, the Fed outlines how it sees the advantages and disadvantages of central bank digital currencies (CBDCs), especially the need for a digital USD. Similar to other central banks, **the Fed aims to foster public dialogue** and seeks feedback by 20 May 2022 so as to establish whether to proceed or not, alongside the approval from the US executive branch and Congress. In this latest document, the Fed does not make a specific recommendation.

Only a few months ago, **US regulators had wide-ranging views about a digital USD**. This latest discussion still points to the inception of a digital USD being a long time away. The Fed is lagging other central banks that are proceeding with their own CBDCs, especially the People's Bank of China (PBoC) whose e-CNY is closer to an official launch.

Here we summarise the Fed's latest insights, which follows on from our previous focus in this space. Apart from the debate over the need for a digital USD and stakeholder outreach, other takeaways, include:

- **The Fed's discussion of digital assets**
- **The possible design of a digital USD**
- **The advantages**
- **A digital USD and the dollar's international role**
- **The disadvantages**
- **Next steps**

Some of the points highlighted by the Fed are used by other central banks when investigating digital currencies. However, **it is clear the Fed is moving forward**.

We also briefly **discuss the latest developments between the Federal Reserve of Boston and the Massachusetts Institute of Technology (MIT) with 'Project Hamilton'**.

This new technical paper was released that details the feasibility of a CBDC that focuses on the design challenges. In the so-called 'phase one', the collaboration tested the robustness of a CBCD using different ideas from cryptography, distributed systems, and blockchain technology. **This open-source effort sheds light on the efficiency and the complexities of the CBDC's features**.

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Entry level to being more serious?

While the Fed has not made a decision whether it should pursue a CBDC, one thing has been clear – if a digital USD is issued, it will be a digital liability of the Fed. This would be different than the currently available forms of digital money. And, **by definition, it would be the safest digital asset available to the general public**, with no associated credit or liquidity risk. Unlike commercial bank money or crypto assets, it would not require mechanisms like deposit insurance or maintenance of public confidence or an underlying asset pool to support its value. The Fed sums up that the introduction of a CBDC would be a 'highly significant innovation in American money'.

Much like other economies, **the Fed has emphasised the need to address inefficiencies in the domestic payment system**. It will unveil a new interbank payment system (FedNow Service) with commercial banks next year, which will improve how funds are transferred immediately between businesses and households. **It adds that there is still a significant portion of people in the US who are unbanked** – over five percent of households.

> **"Nearly 20 percent more have bank accounts but still rely on more costly financial services such as money orders, check-cashing services, and payday loans"**
>
> **Financial Health Network, FinHealth Spend Report, 11 June 2021**

In our view, the Fed also pointing out the high cost of remittances from the US to other countries (on average 5.41% at the end of Q2 2021) is telling. There is no direct endorsement of a digital USD in its document, but we believe **there is certainly a suggestion to adopt one, especially if it can help to reduce inequality, amongst other reasons, which we will explore further**.

Digital assets

The Fed also spent time discussing its view on digital assets. Again, we believe it is an interesting observation that this section appears in the report. **There is not a direct criticism of digital assets or rather crypto currencies, but the observations are telling**, in our view.

The paper does not include a long discussion about digital assets and this should be no surprise. However, there are a few acknowledgements, including:

- Cryptocurrencies have not been adopted as a widely used payment vehicle in the US
- They are subject to extreme volatility
- The energy footprint is very high
- Consumers could be exposed to loss, theft or fraud
- Stablecoins, benchmarked or pegged to a currency, may be useful for more efficient payments, but the paper also cites a presidential working group-led document, which outlines, for example, destabilising runs or payment disruptions

The right stuff?

Although the Fed does not give a clear preference for the adoption and creation of a digital USD, there are implicit reasons to think it leans in favour of it. Nonetheless, the Fed said it would continue to assess the need for a CBDC and how it compares to the current money and payment system. If a digital USD were to be created, however, then it would need to have four defining features:

Privacy-protected: This is deemed ‘critical' in the design of the digital USD and would need to balance protecting the privacy rights of consumers and deterring criminal activity.

Intermediated: While a digital USD remains a liability of the Fed under this model, any services to facilitate the management of the such holdings and transactions will be offered by the private sector (i.e., commercial banks and regulated non-bank financial service providers) in an open market. We believe this is the tier structure considered by other central banks for their CBDCs.

Transferrable: As an efficient and widely accessible payment method, the digital USD should be transferrable ‘seamlessly' or in real time between transacting parties. The Fed also believes programmability is a desirable feature, which could automate transactions at certain times.

Identity-verified: While privacy is a crucial concern, the Fed also points out that a certain degree of transparency is necessary to deter criminal activity. In practice, a CBDC intermediary needs to take the responsibility to verify a customer's identity.

The Fed also sees a wide range of use scenarios of a digital USD, from an individual making purchases to the government collecting taxes. These are hallmarks of an endorsement, in our view, but it still assesses the pros and cons.

The Fed – the pros and cons

Advantages

Wider access to safer money: Cash is currently the only central bank money that is available to the general public. However, the Fed cites how its usage has declined from 40% of transactions in in 2012 to 19% in 2020. A large part of its decline is due to the competition from digital payments. If this trend continues, consumers may demand digital money that, like cash, is free from credit and liquidity risk.

Greater financial inclusion: The Fed sees a CBDC as a potential solution to achieve greater financial inclusion. The rapid, cost-effective and secure payment method could be particularly helpful to economically vulnerable communities. Currently, an initiative at the Cleveland Fed focuses on the design features of a CBDC that make it accessible to individuals who do not use traditional financial services.

Meet the future demands for payment services: For firms, a CBDC represents an opportunity to offer digital money-related services without the risk of issuing a new type of private money. For consumers, some features of a CBDC, such as programmability and the ability to carry out low-cost micropayments, could make existing payment methods faster and more cost efficient.

Beyond borders: If some types of common standards and infrastructure are established, a digital USD could lead to faster settlement and lower transaction costs. At the same time, there is the other side of the coin: if other countries move ahead with their CBDC development and those CBDCs prove to be more attractive than the existing forms of the USD, the share of the USD in international transactions could decline. Therefore, the Fed believes a digital USD could support the dollar's global status. We believe this is a fairly direct view of things.

Disadvantages

Disruption to the financial market structure and stability: Consumers may prefer to hold CBDCs than deposits. As a result, aggregate deposits in the banking system could decrease. And this will, in turn, increase banks' funding costs and reduce credit availability. The substitution effect will be more pronounced, if the CBDC is also interest bearing. In this case, investors could even shift away from other low-risk assets, such as money market mutual funds and Treasury bills. This could further push up the credit costs for businesses and governments.

Small disruptions could turn into a crisis when the financial system is under stress. If commercial bank money and CBDCs can be converted into each other freely, then risk-averse depositors may choose to flee to the safety of a CBDC during a financial crisis. This may lead to bank runs and further destabilise the financial system.

The disruptive effects of CBDCs could be mitigated by their designs. For example, CBDCs could be designed to be non-interest bearing to reduce their attractiveness. Moreover, regulators could also set an upper limit on the amount of CBDCs an individual could hold or accumulate over short periods. We believe the European Central Bank (ECB) has discussed similar aspects for a digital EUR.

Complications in monetary policy implementation: In the US, a CBDC could affect interest rates by altering the supply of reserves in the banking system. A surge in demand for a digital USD (or other CBDCs) could push the amount of reserves below an ample level and, therefore, put upward pressure on the Fed funds rate. This could be further complicated, if the CBDC is interest bearing. In this case, public demand for the CBDC could be larger and more volatile, as investors could consider it as an alternative to other low-risk assets. As a result, the Fed would need to increase its level of reserves, on average, so to buffer against an unanticipated surge in CBDC demand.

Beyond these reserve-management effects, a CBDC could even become a new monetary policy tool. It could affect bank deposits and bank lending, influence economic decisions of household and businesses, and interact with other monetary policy tools of the Fed.

A dilemma between privacy protection and crime detection: As mentioned in the design features, a CBDC needs to strike a balance between privacy protection and criminal deterrence. Under the intermediated model, private intermediaries can leverage their existing privacy and identity-management framework.

Operational resilience and cybersecurity: CBDCs could be more vulnerable to cyberattacks than existing payment services due to more entry points. However, operational resilience could be enhanced by offline capabilities. That said, the feasibility of payments without internet access is still under research, according to the Fed. This is an interesting acknowledgement when considering the PBoC's e-CNY can operate without the internet.

Next steps

Compared to the PBoC's e-CNY, which is close to an official launch, or even the ECB's digital EUR, which has entered the investigation stage, the Fed is taking a slower approach in developing its own CBDC. This is not a surprise, given the wide-ranging views among Fed officials whether to explore the need for a digital currency. In the white paper, the Fed has made it clear that it would not pursue a digital USD without broad public and governmental support.

Currently, the Fed is **conducting research on both the technological and the economic fronts**. The technological experimentation is mainly conducted by the Board's Technology Lab and Project Hamilton, a collaboration between the Boston Fed and the MIT's Digital Currency Initiative. The Board's Technology Lab is exploring the design of a CBDC by leveraging *existing* infrastructure and technology, while Project Hamilton is researching *newer* technology.

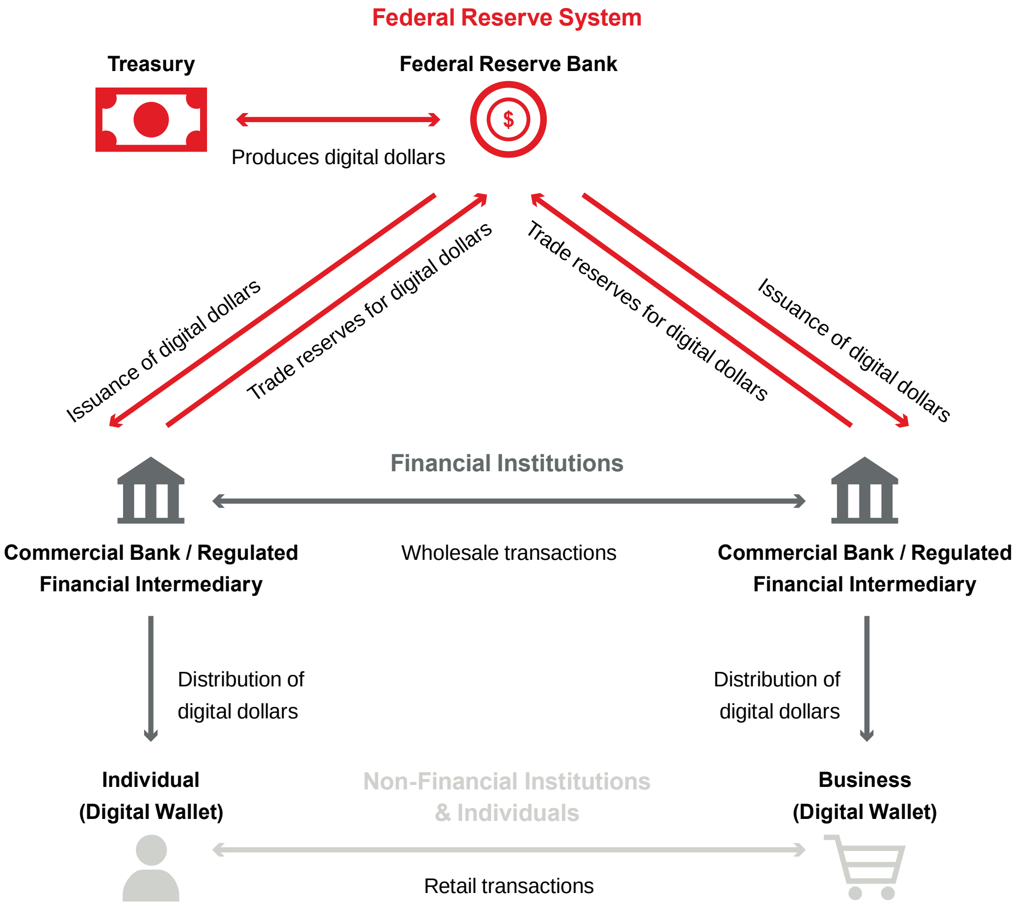
Apart from that, the Board's Technology Lab is also studying the use of distributed ledger technology for wholesale payments and the possible ways to enhance existing digital currency-related services. For economic and policy research, it focuses particularly on financial inclusion and financial stability. Privacy considerations also receive attention.

The Fed is also actively researching topics regarding cross-border payments and other innovations. It has collaborated with six other central banks and the Bank for International Settlements (BIS) to produce foundational principles for CBDCs and related policy options and practical implementation issues in 2020 and 2021. The New York Fed also established an Innovation Centre to facilitate a number of financial innovations with the BIS.

A deadline?

In the white paper, the Fed is seeking comments from all stakeholders on CBDC benefits, risks, policy considerations, as well as design, by 20 May 2022. **Although we believe that in the white paper, the Fed is leaning towards eventually issuing a digital USD, a decision is not imminent**. Approval from Congress needs to be obtained and more research needs to be conducted to demonstrate that the benefits of a digital USD outweigh the risks and that it is superior to other alternatives. It is still a rather long road ahead.

1. An intermediated model of a digital USD



Source: The Digital Dollar Project, HSBC

Conclusion

The Fed’s recent white paper has laid out its take on the design of a digital USD and the possible impact on the financial system. The next few months will see more public opinion and collaboration with academia and international organisations on the research of a digital USD. While no decision has been made at this stage, we believe the Fed is leaning towards eventually issuing a digital USD. As the Fed’s Governor Brainard mentioned, holding off the development of a digital USD does not sound “sustainable” when other countries are investigating and will deploy their own CBDCs. However, even if that is the case, legislative issues still need to be overcome. A digital USD is still a long way from fruition, in our view.

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