

COMMITTEE ON CAPITAL MARKETS REGULATION

May 20, 2022

Federal Reserve Board
20th Street and Constitution Avenue, N.W.
Washington, D.C. 20551

VIA EMAIL AND AGENCY WEBSITE

Re: Money and Payments: The U.S. Dollar in the Age of Digital Transformation

Ladies and gentlemen:

The Committee on Capital Markets Regulation (the “**Committee**”) appreciates the opportunity to comment on the paper of the Federal Reserve Board, “Money and Payments: The U.S. Dollar in the Age of Digital Transformation”¹ (the “**Consultation Paper**”) which invites public discussion of the creation of a central bank digital currency (a “**CBDC**”).

Founded in 2006, the Committee is dedicated to enhancing the competitiveness of U.S. capital markets and ensuring the stability of the U.S. financial system. Our membership includes thirty-eight leaders drawn from the finance, investment, business, law, accounting, and academic communities. The Committee is chaired jointly by R. Glenn Hubbard (Emeritus Dean, Columbia Business School) and John L. Thornton (Former Chairman, The Brookings Institution) and is led by Hal S. Scott (Emeritus Nomura Professor of International Financial Systems at Harvard Law School and President of the Program on International Financial Systems). The Committee is an independent and nonpartisan 501(c)(3) research organization, financed by contributions from individuals, foundations, and corporations.

We believe that, as of now, there is not a strong case for substantial benefits from the creation of a CBDC. There are, however, significant foreseeable costs. Section 1 of this letter describes certain potential costs of CBDCs. Section 2 reviews the principal rationales advanced in favor of CBDCs. Section 3 concludes.

1. Costs of a CBDC

The major cost, and most substantial issue, with the possible widespread use of a CBDC would be the threat to the private banking system’s role in intermediating savings and loans or other forms of assets, a phenomenon referred to as “disintermediation.”

CBDC holdings, whether in the form of accounts at the Federal Reserve (“**Fed**”) or tokens in a wallet, constitute liabilities of the Fed. The increase of the liabilities of the Fed would require the Fed to increase its assets by purchasing assets or increasing lending, thereby

¹ BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, MONEY AND PAYMENTS: THE U.S. DOLLAR IN THE AGE OF DIGITAL TRANSFORMATION (2022), <https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf>.

expanding the role of the government in intermediation, and thus diminishing the role of the private banking sector. Relying on the government rather than the market to provide credit in this fashion would be inefficient. It also raises major issues of political economy, since it could significantly increase the role of the government in the economy. Moreover, this expanded role would be effectuated through an independent central bank rather than through the elected legislature and the executive branch.

Measures intended to limit a CBDC's disintermediating effect, such as imposing limits on CBDC holdings or negative interest rates, would be difficult to devise—what would be the amount of such limits or negative interest rate, and when would these measures be triggered? Limits on CBDC holdings would also affect banks of different sizes unequally: in particular, a low limit would likely have a greater effect on smaller banks, since there is evidence that smaller banks tend to have smaller average account sizes.² Moreover, if any of the purported benefits of a CBDC materialize, capping CBDC holdings would limit the extent of those benefits.

It has been suggested that the Fed could re-intermediate the funds it attracts through CBDC holdings by returning the funding it receives in the form of CBDC deposits to the banking system. It is however unclear how such a measure could be carried out without undesirable side effects. Assuming a bank depositor could only exchange cash-denominated bank deposits for CBDC through its own bank, the Fed would execute the transfer by debiting the transferring bank's account and crediting the account of the CBDC holder. The Fed could, in theory, then return the CBDC funds to the transferring bank by making a loan to the transferring bank, thus maintaining the same level of individual bank funding.³ But constant Fed funding to individual banks based on depositors' shifts from the deposits of individual banks to CBDC could unduly expose the Fed to safety and soundness concerns (since faltering banks would get more Fed funding) and would increase the percentage of the funding available to the banking system that is government supplied rather than market based. Any significant credit losses the Fed incurs in connection with these loans would risk political attack on the Fed and thus threaten its independence on its core function, monetary policy.

The Fed could alternatively return the CBDC funds it receives to the banking system via an auction to qualifying banks. This measure could maintain the same level of total funding to the banking system but would alter the funding available to individual banks (quite apart from their safety and soundness) and still increase Fed funding overall to the banking sector, and thus its overall role in the economy.

Additional costs associated with the introduction of a CBDC are identified in Section 2 below, namely the potential infringement of privacy that would accompany a more trackable

² See Jeffrey A. Clark, *Economies of Scale and Scope At Depository Financial Institutions: A Review of the Literature*, 73(8) ECONOMIC REVIEW, FEDERAL RESERVE BANK OF KANSAS CITY 16, 24 (1988), https://www.kansascityfed.org/documents/1039/Full_publicationBE64D1A9-46BB-4E6E-A17D-7C8F25376624.pdf.

³ See Francesca Carapella & Jean Flemming, *Central Bank Digital Currency: A Literature Review*, FEDS NOTES (Nov. 9, 2020), <https://www.federalreserve.gov/econres/notes/feds-notes/central-bank-digital-currency-a-literature-review-20201109.htm>.

digital currency as compared with cash, and the possible increased risk to the financial system that arises from the ability of depositors to transfer funds into a CBDC in a financial crisis.

2. Benefits of a CBDC

In this section, we evaluate six reasons advanced in favor of CBDCs and conclude in each case that the envisioned benefits are either invalid, uncertain, or achievable by other means.

i) *Payment facilitation and financial inclusion.*

One of the main reasons offered in support of a CBDC is that a CBDC could improve the retail payment system to allow faster payments. However, such payments can already be efficiently made today through debit and credit cards, or through platforms like Venmo and Zelle. The private sector is continuing to provide new alternatives and the Fed is nearing the deployment of its FedNow service. While some have criticized the existing private payment system, specifically those provided by VISA and Mastercard, as anti-competitive due to the charging of interchange fees, it is hard to argue that the market would function better with a further expansion of government, through the Fed, in the payment system. Indeed, various commentators cast doubt on the utility of a CBDC as an indirect check on interchange fees⁴ and argue that if the government seeks to moderate interchange fees, that objective is better served by direct regulation.⁵ The Fed has in fact already implemented regulations limiting debit card interchange fees: Section 1075 of the Dodd Frank Act (also known as the Durbin Amendment) requires debit interchange fees charged by issuers with \$10 million or more in assets to be “reasonable and proportional to the cost incurred by the issuer” and authorizes the Fed to issue implementing regulations.⁶ The regulations issued thereunder limit debit interchange fees received by such issuers to 21 cents plus 0.05% of the transaction value.⁷ Moreover, a CBDC system would not be without its own unique transaction costs: for example, the intermediaries and wallet providers necessary for a functioning CBDC payment system would presumably require monetary compensation for their services.

It is also argued that CBDCs would facilitate more efficient cross-border payments for retail customers. However, very little concrete research exists on how a CBDC would remedy the problems with cross-border payments. One line of argument revolves around the high cost of remittances. It remains unclear however precisely how as a technical matter a CBDC could reduce such costs. Further, a major portion of the cost of cross-border payments consists of currency conversion costs. Indeed, the reduction of currency conversion costs was a major reason for the adoption of the Euro. It remains to be seen how a U.S. CBDC, possibly in conjunction with CBDCs in other jurisdictions, could reduce such costs. Moreover, there have

⁴ See David Andolfatto, *On the Necessity and Desirability of a CBDC* 6 (2021), https://gceps.princeton.edu/wp-content/uploads/2021/11/21oct_Andolfatto-paper_CBDC4US.pdf; Gregory Baer, *Central Bank Digital Currencies: Costs, Benefits and Major Implications for the U.S. Economic System* 5 (BPI Staff Working Paper, 2021), https://bpi.com/wp-content/uploads/2021/04/Central-Bank-Digital-Currencies-Costs-Benefits-and-Major-Implications-for-the-U.S.-Economic-System.pdf?utm_source=media&utm_medium=email&utm_campaign=cdbcs&utm_content=invite%201.

⁵ See Andolfatto, *supra* note 4, at 6.

⁶ Dodd-Frank Wall Street Reform and Consumer Protection Act § 1075, 15 U.S.C. § 1693o-2(a)(1).

⁷ 12 C.F.R. § 235.3 (2021).

been detailed proposals for the facilitation and optimization of cross-border payments that do not involve CBDCs or other cryptocurrencies.⁸ Alternatively, if the decision were made not to charge for the cost of remittances, then that would be a financial inclusion issue, which is addressed in the paragraph below, and not related to enhanced efficiency of cross-border payments involving CBDC.

One way that CBDCs could advance financial inclusion is by allowing individuals without bank accounts to make and receive payments through accounts at the Fed. However, according to FDIC surveys, the most common reasons why individuals do not hold bank accounts are the amount and unpredictability of fees and the inability to meet minimum balance requirements.⁹ Both fees and minimum balance requirements arise because the bank must recoup the costs associated with maintaining a deposit account. Obviously, the provision of payment services through the Fed would also entail costs. If the Fed did not pass on these costs to consumers in the form of fees or minimum balance requirements, then its remittances to the Treasury would be reduced, and so taxpayers in general would be underwriting the provision of such services. Such fiscal support for the unbanked should require Congressional authorization, and it is unclear how cost-free Fed accounts could be limited just to those with the inability to pay for them.

Another related reason advanced for a CBDC is the possibility of using Fed accounts to distribute federal benefits, such as welfare payments, tax refunds, or most recently COVID support funds. However, the swift distribution of substantial amounts of federal benefits is demonstrably feasible without the creation of a CBDC. In particular, the federal government distributed over \$1 trillion in COVID-related benefits without a CBDC, including to persons without bank accounts through such methods as privately managed pre-paid cards.¹⁰ Moreover, if the government sought to facilitate the distribution of government benefits, a CBDC would not be necessary to do so, as the government could do so through Treasury accounts.¹¹

The Consultation Paper notes the potential existence of a narrower use case for a CBDC designed for “large value institutional payments . . . not widely available to the public.”¹² We believe that such a use case warrants further study.

⁸ See Ulrich Bindseil & George Pantelopoulos, *Towards the holy grail of cross-border payments* (2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4057995.

⁹ See FEDERAL DEPOSIT INSURANCE CORPORATION, HOW AMERICA BANKS: HOUSEHOLD USE OF BANKING AND FINANCIAL SERVICES 2019 FDIC SURVEY 3 (2020), <https://www.fdic.gov/analysis/household-survey/2019report.pdf> (49% of respondents among unbanked households indicated that they did not have a bank account because they did not have enough money to meet minimum balance requirements; 66% of respondents indicated that bank fees were either too high or too unpredictable).

¹⁰ See HOWELL JACKSON & TIMOTHY G. MASSAD, THE TREASURY OPTION: HOW THE US CAN ACHIEVE THE FINANCIAL INCLUSION BENEFITS OF A CBDC NOW (2022), <https://www.brookings.edu/research/the-treasury-option-how-the-us-can-achieve-the-financial-inclusion-benefits-of-a-cbdc-now/>.

¹¹ See *id.*

¹² BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, *supra* note 1, at Note 19.

ii) Defensive reasons.

A second set of reasons offered in favor of a CBDC can be characterized as “defensive.” First is the concern that the rise in use of stablecoins could threaten financial stability (for example, if coin providers could not meet redemption demands or had operational failures), pose problems for the conduct of monetary policy, or be used to avoid tax and anti-money laundering (“**AML**”), terrorism, or sanction provisions. However, these concerns could be met by more highly regulating stablecoins, or in the extreme case, prohibiting them. Further, it is unclear how the creation of a CBDC in and of itself would defend against such dangers if the use of stablecoins was still permitted. Consumers might still choose to hold stablecoins in substantial amounts even following the introduction of a CBDC.

A second defensive reason is to counter the development of a CBDC by other jurisdictions, most particularly China. The major concern is that the CBDC that China has recently developed, known as e-CNY, could enhance the reserve currency status of the renminbi. In our view, the reserve status of the renminbi is undermined by fundamental factors, such as the use of capital controls, concern with political stability and the unavailability of liquid assets to invest in. It is far from clear how a Chinese CBDC would override these concerns.

iii) Limiting tax and AML avoidance

A third purported benefit of a CBDC would be to limit tax or AML avoidance that can currently be achieved through the use of cash. This benefit assumes that cash would be outlawed or substantially limited in conjunction with the creation of a CBDC. Without such a prohibition or limitation, persons seeking to circumvent tax and AML laws would likely avoid the CBDC and continue to use cash. No blueprint has been advanced as to how such a prohibition or limitation could practically be achieved without unduly affecting the legitimate use of cash for small payments, particularly by the unbanked. Furthermore, there would be a major concern with the loss of privacy that could follow from mandated use of a trackable digital currency. While a CBDC system could be designed to limit the ability of the government to monitor the use of the CBDC, these limits would then conflict with the goal of curtailing illegal activity.

iv) Financial stability

A fourth purported benefit of a CBDC would be to increase financial stability by providing its holders with an asset that, unlike a bank deposit, is “unrunnable” - that is, a CBDC would not be subject to the risk that a sudden and severe spate of withdrawals would make a depositor’s CBDC funds unavailable. However, the effect of the availability of such an “unrunnable” asset, if held in substantial amounts, could be to undermine severely the critical role of the banking system in allocating capital. Most particularly, in a crisis scenario the availability of a CBDC may threaten the stability of the banking system by driving bank account holders to transfer their assets from bank deposits to CBDC (i.e., Fed accounts), thus spurring a bank run. In this respect, what might appear to be a benefit of a CBDC could in fact be a significant cost.

v) *Monetary policy*

A fifth purported benefit of a CBDC would be to enhance monetary policy through the ability to directly pay interest on a CBDC, or to charge interest on CBDCs as part of a negative interest rate policy, neither of which is practically possible with physical currency held outside of bank accounts. These features could also be characterized as a “defensive” rational, insofar as cryptocurrencies or stablecoins could make monetary policy more difficult to conduct if holdings of cryptocurrencies and stablecoins become sufficiently large. However once again, if the government believes that cryptocurrencies or stablecoins pose a legitimate threat to monetary policy, the more direct response would be to prohibit or highly limit the growth of cryptocurrencies or stablecoins.

One might also consider whether the introduction of a CBDC would make monetary policy more effective in its own right, setting aside any concerns with cryptocurrencies or stablecoins. There seems to be little benefit from being able to pay positive interest on CBDC liabilities, whether held in direct Fed accounts or through wallets, because paying interest on bank reserves or contracting or expanding the money supply are sufficient to establish interest rate targets. Moreover, imposing negative rates on a CBDC could help implement negative rate targets only if such rates could not be avoided by CBDC holders transferring out of their CBDC holdings into cash or bank deposits, where such negative rates did not exist. In effect, this would require abolishing or highly restricting the use of cash. As long as cash plays an important role in the payments system, this would be difficult to accomplish. Although recent studies indicate that cash use in most countries, including the United States, is declining,¹³ under current conditions such a prohibition would potentially interfere with the legitimate use of cash for small payments, particularly by the unbanked.

vi) *Development of smart contracts*

The sixth purported benefit of a CBDC relates to the possible programming of a CBDC to permit more efficient asset transfers/settlements through smart contracts. Such contracts are being used today to a limited extent in connection with stablecoins¹⁴ and we agree that the combination of programmable money and smart contracts may contain the potential for substantial benefits.

For example, the current Automated Clearing House (“ACH”) payment system allows for the programming of debits/payments from existing bank accounts.¹⁵ It could be possible to program smart contracts to trigger ACH-like transactions once the conditions specified in the

¹³ See Baer, *supra* note 4, at 16; Tanai Khiaonarong, David Humphrey, *Falling Use of Cash and Demand for Retail Central Bank Central Currency* (IMF Working Paper WP/22/27, 2022), <https://www.imf.org/en/Publications/WP/Issues/2022/02/04/Falling-Use-of-Cash-and-Demand-for-Retail-Central-Bank-Digital-Currency-512766>.

¹⁴ See Douglas Arner et al., *Stablecoins: risks, potential and regulation* (BIS Working Paper No 905, 2020), <https://www.bis.org/publ/work905.pdf>.

¹⁵ See NATIONAL AUTOMATED CLEARING HOUSE ASSOCIATION, *What is ACH?* <https://www.nacha.org/content/what-is-ach> (last visited May 4, 2022).

smart contract have been met.¹⁶ ACH transactions, however, are not immediate and contain counterparty and settlement risks.¹⁷ Smart contracts leveraging programmable money like a CBDC are not subject to these risks and could thus increase the efficiency of transactions and lower the above mentioned risks associated with the current systems.¹⁸

We would, however, question the necessity of a CBDC to realize this goal when other forms of digital assets, such as tokenized commercial bank money, could be developed for use in smart contracts.¹⁹ Converting money into a programmable form could be a major new step in smart contract evolution, and the possible benefits could be substantial, but it is unclear that a CBDC is necessary to realize these benefits. We support further investigation into this question.

In summary, the case for substantial benefits from a CBDC has yet to be made.

3. Conclusion

We find that the principal benefits advanced in favor of a CBDC are either uncertain or achievable by other means. Conversely, the potential for a CBDC to diminish the market's role in intermediating funds through the private banking sector, and thus increase the government's - and particularly the central bank's - role therein, seems very undesirable. It is therefore our position that as of the present time the costs associated with the introduction of a CBDC outweigh its uncertain benefits. While we favor further research and discussion of a CBDC, we are skeptical that such consideration will change the calculus herein described.

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¹⁶ See Peter Lone et al., *Using Distributed Ledger Technology for Payment Directories*, FEDS NOTES (Feb. 3, 2022), <https://www.federalreserve.gov/econres/notes/feds-notes/using-distributed-ledger-technology-for-payment-directories-20220203.htm>.

¹⁷ See *What are ACH Payments and How do ACH Payments Work?*, SQUARE (Jan. 13, 2022), <https://squareup.com/us/en/townsquare/ach-payments>.

¹⁸ See Phillip Sander, *Will Blockchain Replace Clearing Houses? A case of DVP Post-Trade Settlement*, FORBES (Dec. 2, 2020), <https://www.forbes.com/sites/philippsandner/2020/12/02/will-blockchain-replace-clearinghouses-a-case-of-dvp-post-trade-settlement/?sh=72f0bf408fb5>.

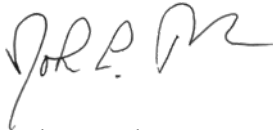
¹⁹ See *id.*

COMMITTEE ON CAPITAL MARKETS REGULATION


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Thank you very much for your consideration of the Committee's position. Should you have any questions or concerns, please do not hesitate to contact the Committee's President, Professor Hal S. Scott (hscott@law.harvard.edu), or its Executive Director, John Gulliver (jgulliver@capmksreg.org), at your convenience.

Respectfully submitted,



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