

**Testimony before the**  
**U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON FINANCIAL SERVICES**  
**Task Force on Financial Technology**

Hearing on

“Digitizing the Dollar: Investigating the Technological Infrastructure, Privacy, and  
Financial Inclusion Implications of Central Bank Digital Currencies”

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**Introduction**

Thank you Chair Lynch, Ranking Member Davidson, and members of this Task Force, for the opportunity to testify today. My name is Rohan Grey. I am an Assistant Professor of Law at Willamette University, where I research money and technology, specializing in the design and regulation of digital fiat currency.<sup>1</sup>

I also serve as a Vice-Chair of the Policy and Governance Working Group at the Digital Currency Global Initiative, a partnership between Stanford University and the United Nations’ International Telecommunications Union. In that capacity, I work with policymakers and industry representatives from around the world to develop and harmonize technical and regulatory standards concerning digital fiat currency, with a focus on privacy, identity, and on-boarding issues.

As the author of a forthcoming book titled “Digitizing the Dollar: the Battle for the Soul of Public Money in the Age of Cryptocurrency” (Melville House, 2022), I am grateful for the opportunity to participate in a hearing that shares its title, and to offer my personal views on the technological infrastructure, privacy, and financial inclusion implications of publicly issued digital currencies. I am also thrilled to be joined by such esteemed co-panelists, including my friend Jonathan Dharmapalan, with whom (in the

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<sup>1</sup> Thanks to Galin Brown, Mary Rumsey, and the rest of the wonderful Willamette University College of Law library team for their research assistance.

interests of disclosure) I co-authored a white paper on the macroeconomic policy implications of digital fiat currency back in 2017.<sup>2</sup>

## **1. Situating CBDC Within a Broader Vision of Digital Fiat Currency**

I come here today in support of the creation of a digital dollar. **Properly designed and administered, a digital dollar system could improve financial access and equity, revitalize the direct public provisioning of payments and banking services, and ensure the United States meets the evolving challenges of the 21st century digital economy.** To that end, I thank and commend each of you on this Task Force, as well as your colleagues on the Senate side, for taking the potential of a digital dollar seriously, and for giving the nuanced technical and policy issues it raises the thoughtful attention they deserve.

Nevertheless, I am afraid I must begin my substantive remarks with a quibble, albeit a gentle and mostly provocative one. In particular, my complaint is with the use of the term “central bank digital currency” in the title of this hearing. **In my view, it is a mistake to equate and reduce the idea of a “digital dollar” to that of a “central bank digital currency.”** The former encompasses a wide spectrum of designs, architectures, and arrangements, while the latter refers only to a narrow segment of that spectrum in which central banks are the exclusive issuers and administrators.

To be clear, I believe the Federal Reserve should and will play a central role in any future digital dollar regime introduced in the United States. I also strongly endorse the FedAccounts proposal of my Professor Menand and his colleagues.<sup>3</sup> But in my view, **the universe of digital fiat currency possibilities that we should be exploring at this stage extends beyond that which the vocabulary of CBDCs allows us to consider.**

I appreciate that it may seem like I am making a mountain out of minor semantics. But **the boundaries of our words quickly become the boundaries of our thoughts, and with them, our actions.** To give a sense of what I am talking about, consider the example the Telecommunications Act of 1996, which established a new regulatory framework for the internet and online platforms. Around the time of the bill’s passage,

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2 Jonathan Dharmapalan & Rohan Grey, *The Macroeconomic Policy Implications of Digital Fiat Currency*, eCurrency Mint (2017), <https://www.ecurrency.net/post/the-case-for-digital-legal-tender-the-macroeconomic-policy-implication-of-digital-fiat-currency>.

3 Morgan Ricks, John Crawford, & Lev Menand, *FedAccounts: Digital Dollars*, 89 Geo. Wash. L. Rev. 113 (2021), <https://www.gwlr.org/fedaccounts-digital-dollars>. See also Saule Omarova, *The People’s Ledger: How To Democratize Money and Finance the Economy*, Vand. L. Rev. (forthcoming) (2020), [https://privpapers.ssrn.com/sol3/papers.cfm?abstract\\_id=3715735](https://privpapers.ssrn.com/sol3/papers.cfm?abstract_id=3715735); Robert Hockett, *Money’s Past is Fintech’s Future: Wildcat Crypto, the Digital Dollar, and Citizen Central Banking*, 2 Stan. J. of Blockchain L. & Pol’y (2019), <https://stanford-jblp.pubpub.org/pub/wildcat-crypto-fintech-future/release/1>; Rohan Grey, *Mobile Finance in Developing Countries: Macroeconomic Implications and Potential*, Global Institute for Sustainable Prosperity Working Paper No. 116 (2017), <http://www.global-isp.org/wp-content/uploads/WP-116.pdf>.

Columbia Law Professor Eben Moglen observed that the use of specific metaphors like “information superhighway,” “market for eyeballs,” and “broadcaster-consumer model,” was shaping public discourse around the internet, and with it, Congress’s legislative response.<sup>4</sup>

In particular, Professor Moglen argued that these and similar metaphors, by emphasizing commerce, passive consumerism, and hyperindividualism, had the effect of “rul[ing] out of our minds certain issues, ranges of outcomes, and possible modes of organization.”<sup>5</sup> He posed a thought experiment:

“[s]uppose instead... beginning in the early 1990s, we had instead all referred to emerging internet as “the Universal Education System.” This would have captured a different range of meanings, neither more nor less correct as a characterization of the new technology. But the shift of metaphor would surely have affected the political climate... Immediately, inquiry is led to issues of equality of access, locus of editorial control, development of the labor force, and the relevance of the technology to the actual conduct of electoral politics.”<sup>6</sup>

Today, a similar metaphorical hijacking is underway in the digital fiat currency discourse. This time, however, the culprit is not free market ideology, but a tendency among certain political classes to refract all issues of monetary governance through the overriding lens of central bank independence.

In reality, the economic principle of central bank independence, which has its theoretical roots in historical disputes over institutional priorities between the Treasury and Federal Reserve regarding the coordination of monetary and fiscal policy,<sup>7</sup> has little if anything to do with currency architecture or payments system administration. Nevertheless, it has become so culturally dominant that when policymakers begin to consider how to digitize the monetary system, they simply assume any such process should and must be conducted in accordance with the same institutional division of labor between central banks and other executive branch actors as presently exists with respect to the determination of, for example, interest rates and liquidity provisioning.

What insights into the themes of this hearing might we gain by reformulating our thinking away from “CBDCs,” and towards the broader framework of “digital fiat

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4 Eben Moglen, *The Invisible Barbecue*, 97 Colum. L. Rev. 945 (1997), <http://moglen.law.columbia.edu/publications/barbecue.html>.

5 *Id.*

6 *Id.*

7 *See, e.g.*, Robert Hetzel & Ralph Leach, *The Treasury-Fed Accord: A New Narrative Account*, Federal Reserve Bank of Richmond Economic Quarterly (Winter, 2001), [https://www.richmondfed.org/-/media/richmondfedorg/publications/research/economic\\_quarterly/2001/winter/pdf/hetzel.pdf](https://www.richmondfed.org/-/media/richmondfedorg/publications/research/economic_quarterly/2001/winter/pdf/hetzel.pdf).

currency”? How does our understanding of the challenges and possibilities of digitizing the dollar change when we abandon the notion that any and all innovation must take place either at, or through, the Federal Reserve? I can think of at least a couple of ways.

## **2. Beyond CBDC: Towards a Polycentric Digital Dollar Architecture**

The first concerns the institutional delegation of responsibility for designing and implementing a digital dollar between the Federal Reserve and other government agencies and actors. Contrary to some popular narratives, **the Fed is not and has never been the only federal entity responsible for issuing currency or administering public payments infrastructure.**

The Mint, which issues coins, is the oldest monetary institution in the U.S. government, preceding the founding of the Fed by over a hundred years. The Bureau of Engraving and Printing, also housed in the Treasury, is responsible for printing Federal Reserve Notes (“FRNs”) on behalf of the Federal Reserve. Indeed, modern FRNs are themselves modeled on earlier Treasury Notes known as Greenbacks, which circulated concurrently with FRNs until 1971.<sup>8</sup>

Another Treasury agency, the Bureau of the Fiscal Service, today partners with a number of commercial banks to issue pre-paid debit cards to millions of benefit recipients and military service people operating overseas in areas that lack traditional banking services.<sup>9</sup> It also operates the TreasuryDirect program, through which individuals can acquire and hold digital book-entry securities directly at the Treasury without any involvement from the Federal Reserve or private intermediaries.<sup>10</sup>

Beyond the Treasury, the U.S. Postal Service provided postal banking services from 1910-1967, until it was shut down due to pressure from banking interests who saw it as a growing threat to their business model.<sup>11</sup> Today, the Department of Education is

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8 United States Treasury, *Legal Tender Status*, Frequently Asked Questions (Jan 1., 2011), <https://www.treasury.gov/resource-center/faqs/Currency/Pages/legal-tender.aspx> (“Because United States Notes serve no function that is not already adequately served by Federal Reserve Notes, their issuance was discontinued, and none have been placed in to circulation since January 21, 1971”).

9 The Treasury also used its prepaid debit card program to deliver COVID-19 pandemic relief payments. See United States Treasury, *Treasury is Delivering Millions of Economic Impact Payments By Prepaid Debit Card*, Press Release (Jan. 7, 2021), <https://home.treasury.gov/news/press-releases/sm1229>.

10 Indeed, some digital dollar proposals have proposed expanding TreasuryDirect into a general purpose, account-based payments system, which would be administered by the Treasury Department rather than the Federal Reserve. See, e.g., Robert Hockett, *The Democratic Digital Dollar: A “Treasury Direct” Option*, Just Money (March 25, 2020), <https://justmoney.org/r-hockett-the-democratic-digital-dollar-a-treasury-direct-option>; David Andolfatto, *Bitcoin and Central Banking*, Macromania (Nov. 12, 2015), <http://andolfatto.blogspot.com/2015/11/bitcoin-and-central-banking.html>.

11 See, e.g., Mehrsa Baradaran, *A Short History of Postal Banking*, Slate (Aug. 18, 2014), <https://slate.com/news-and-politics/2014/08/postal-banking-already-worked-in-the-usa-and-it-will-work-again.html>; United States Postal Service Historian, *Postal Savings System* (July 2008), <https://about.usps.com/who-we-are/postal-history/postal-savings-system.pdf>.

responsible for issuing, processing, and securitizing millions of student loans every year, in the process generating trillions of dollars of U.S. government-backed financial assets that circulate in the capital markets as a form of near-money alongside Treasuries and Mortgage-Backed Securities issued by Freddie, Fannie, and Ginnie.<sup>12</sup>

Given this diverse, fragmented tapestry of roles, instruments, and processes, **the Federal Reserve is clearly not the only government agency with a legitimate interest in the future design and administration of a digital dollar.** Instead of expecting the Fed to shoulder the entire burden of America's monetary governance through whatever CBDC architecture it ultimately settles on, why not bring in other key actors into the infrastructure-building process from the get-go?

If the United States is to truly lean into and take advantage of this historical opportunity and inflection point, policymakers must resist false dichotomies and trade-offs between policy priorities that do not actually exist. The federal government has considerable resources and the capacity to both walk and chew gum at the same time. The challenge is to not take our eyes off the bigger picture, which in this case is the complete top-to-bottom digitization of our entire system of public finance. **To that end, other public agencies, such as the Treasury and the Postal Service, have unique needs, priorities, and expertise that should also be considered when evaluating the appropriate division of executive branch responsibilities for digital fiat currency infrastructure.**

To their credit, Professor Menand and his colleagues have long-recognized the benefits of inter-agency coordination when it comes to the retail provisioning of FedAccount services through partnership with the U.S. Postal Service, with its nation-wide network of brick-and-mortar institutions and centuries of steady service-delivery.<sup>13</sup> But when it comes to the architecture and governance structure of FedAccounts themselves, responsibility remains tightly and exclusively vested in the Federal Reserve. The Postal Service, by contrast, is largely demoted to a junior partner and second-tier stakeholder, positioned closer to the commercial banks that the Fed is presently responsible for supervising and regulating. Retail customer interfaces and platforms administered by the Postal Service are treated as distinct from, and derivative of, the core FedAccount architecture, and given far less media and policymaker attention.<sup>14</sup>

**A regrettable effect of this positioning has been the emergence of a gap in enthusiasm and sense of urgency among policymakers regarding FedAccounts on one hand, and Postal Banking on the other.** Unless this trend is reversed, I fear the likely end result will be a digital dollar system in which Postal Banking is deprioritized

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<sup>12</sup> Raúl Carrillo, *How Wall Street Profits From Student Debt*, Rolling Stone (April 14, 2016), <https://www.rollingstone.com/politics/politics-news/how-wall-street-profits-from-student-debt-225700/>. See also Luke Herrine, *The Law and Political Economy of a Student Debt Jubilee*, 68 Buff. L. Rev. 281 (2020), <https://digitalcommons.law.buffalo.edu/buffalolawreview/vol68/iss2/1/>.

<sup>13</sup> See, e.g., Ricks, Crawford, & Menand, *supra* note 3, at 124-5.

<sup>14</sup> *Id.*

or even abandoned entirely, and responsibility for provisioning of FedAccount services left exclusively to the same for-profit commercial banks and fintech platforms that dominate the retail payments landscape today.

To avoid such an outcome, **I strongly urge members of this Task Force, and Congress more broadly, to make Postal Banking, of the kind proposed by the Campaign for Postal Banking<sup>15</sup> and leading banking experts like University of California, Irvine Law Professor Mehrsa Baradaran,<sup>16</sup> a top priority and non-negotiable component of any legislation establishing a digital dollar system.**

More broadly, the design and marketing of public digital money should be a matter of widespread community consultation and popular inclusiveness. It will affect everybody, like any other major piece of national infrastructure with great political consequence across the country, and will influence the economies of all every state and territory. It is important the process remain democratically driven, and that private actors and obscure public bureaucrats from any agency do not inadvertently become the major “stakeholders” and set the terms of the debate for the public and their representatives.

### **3. Tokens and Accounts: Complements, Not Substitutes**

When we approach questions of digital fiat currency design from a multi-institutional perspective, options that initially appear as competing alternatives instead become potential complements. Today, for example, there is considerable debate among central bankers over the relative merits of account-based and token-based digital currency architectures.<sup>17</sup> This debate is often framed in terms of arguments for the superiority of one model over the other, as though nations must choose between them and then stick with their choice forever. In reality, however, **token and account monies are not substitutes but complements, together capable of achieving functionality not otherwise possible with one or the other system independently.**

Account-based money is typically recorded in a common ledger and maintained by a central actor or distributed group of actors according to common accounting standards. Payments are recorded through marking up and down ledger entries, which represent contractual obligations between the account-manager and the account-holders to pay or settle in higher forms of money “on demand.” Token-based money, in contrast, is a form of transferable “bearer instrument,” which means that legal ownership resides with the

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15 *Campaign for Postal Banking* (2021), <http://www.campaignforpostalbanking.org>.

16 Mehrsa Baradaran, *The Case for Postal Banking*, Data for Progress & Justice Collaborative Institute Report (July 2020), <https://30glxtj0jh81xn8rx26pr5af-wpengine.netdna-ssl.com/wp-content/uploads/2020/12/the-case-for-postal-banking-2.pdf>.

17 See, e.g., Raphael Auer & Rainer Boehme, *Central Bank Digital Currency: The Quest for Minimally Invasive Technology*, BIS Working Paper No. 948 (June 2021), <https://www.bis.org/publ/work948.htm>; Bank of International Settlements, *Central Bank Digital Currencies* (March 2018), <https://www.bis.org/cpmi/publ/d174.pdf>.

person currently in legitimate possession of the instrument, whether in your pocket or a digital wallet running on a server under your mattress at home.

Token money and account money systems each have their own benefits. Account money, on one hand, supports identity-linking, fraud prevention, and consumer protection. Token money, on other hand, affords greater privacy, flexibility, and the capacity for “offline” transactions in contexts where access to a common ledger or financial intermediary is impracticable. In addition, token money is often used by actors and communities with limited trust in intermediated accounts managed by commercial banks and governments.

Although it is common to treat these two forms of money presented as competitors, in reality, **token and account-based monies have existed concurrently for thousands of years, with almost all major civilizations and economies employing both in some mix or other.**<sup>18</sup> Indeed, archaeologists believe that the origins of writing itself lay in prior systems of three-dimensional clay tokens, which were traded and transferred as legal receipts for taxes and other dues owed to governing authorities.<sup>19</sup>

Since then, there have been sorts of technological and institutional innovations in account money, from the development of double-entry bookkeeping in medieval Italy, to the introduction of central banks, mobile money, and e-money operators more recently. At the same time, there have also been ongoing innovations in token-money, from the introduction of metallic coins in Lydian Greece in the sixth century B.C., to paper currency and now, digital cryptoassets.<sup>20</sup>

One of my favorite examples of underappreciated token-money technologies is the tally-stick, which became widely popular in England and elsewhere during the middle ages.<sup>21</sup> The tally stick was a small piece of wood that was broken in a distinct way so as to create two unique parts of a larger unified whole. The issuer, typically the sovereign, kept one half, while the other was issued into circulation as money. When the time came to pay taxes, individuals tendered their “private” half, which was matched up to its “public” half for authenticity to minimize counterfeiting.<sup>22</sup>

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18 See, e.g., David Graeber, *Debt: The First 5000 Years* (2011); David Fox & Wolfgang Ernst (Eds.), *Money in the Western Legal Tradition: Middle Ages to Bretton Woods* (2016).

19 Denise Schmandt-Besserat, *The Origins of Writing: An Archaeologist's Perspective*, 3(1) *Written Comm.* 31 (1986).

20 For a broad overview, see, e.g., William Goetzmann, *Money Changes Everything: How Finance Made Civilization Possible* (2016); Felix Martin, *Money: The Unauthorized Biography* (2013).

21 See W.T. Baxter, *Early Accounting: The Tally and Checkerboard*, 16(2) *The Acct. Hist. J.* 43 (1989).

22 Interestingly, the technical principle behind breaking the stick in two is not dissimilar from the modern system of public key encryption that undergirds most online commercial authentication systems, which relies on pairing a “public key” address with a unique “private key” password hash that only the creator knows.

While this system may sound unwieldy, it remained in practical operation for centuries, allowing public authorities to issue a cheap, generic, but also highly secure monetary instrument that could easily circulate among the general population. Critically, however, its introduction and use came at a time of simultaneous proliferation of new forms of credit and account-based monies, including some of the earliest precursors of modern commercial bank deposits.<sup>23</sup>

A key lesson from such periods of monetary history is the importance of embracing pluralism, heterogeneity, and constructive tensions among different public monetary practices and technologies. Rather than approaching questions of digital dollar design as if, like Highlander, “there can only be one,” **Congress and the Biden Administration should pursue and coordinate multiple, concurrent avenues of technological experimentation and innovation through a range of agencies and institutional arrangements.**

#### **4. The Treasury Should Issue a Token-Based, “eCash” Version of the Digital Dollar to Complement FedAccounts and Postal Banking**

In the United States today, token-money exists in the form of coins stamped by the Mint and paper currency printed by the Bureau of Engraving – both sub-agencies of the Treasury Department. Although coins and notes are distributed via the Federal Reserve, and modern paper notes legally treated as liabilities of the Federal Reserve, responsibility for their actual design, security, and physical lays exclusively with the Treasury. Historically, the Mint offered its money-creation services directly to the public, a tradition whose legacy still endures to this day in the form of the Mint’s multi-billion dollar commemorative and bullion coin programs.<sup>24</sup>

By contrast, the Federal Reserve’s expertise and administrative responsibility lies primarily with the management of accounts on behalf of select, high-level counterparties, including banks, foreign governments, and other federal agencies, as well as the supervision and regulation of private financial markets and systemically important institutions. With the exception of the recently created and largely autonomous Consumer Financial Protection Bureau, the Federal Reserve System has limited direct day-to-day interaction with retail currency users as a stakeholder group. Senior officials and political appointees tend to come from backgrounds in macroeconomics, monetary theory, and financial market regulation, with little to no experience in provision of consumer financial services, payments system administration or the technical manufacture of monetary instruments.

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<sup>23</sup> See, e.g., P.R. Schofield & N.J. Mayhew, *Credit and Debt in Medieval England c.1180-c.1350* (2016); Benjamin Geva, ‘Bank Money: The Rise, Fall and Metamorphosis of the ‘Transferable Deposit,’ in Fox & Ernst, *supra* note 15, ch. 18.

<sup>24</sup> For an extended history of U.S. Mint activities, see David Lange & Mary Jo Mead, *History of the United States Mint and Its Coinage* (2005).

This is, of course, understandable. Compared to the trillions of dollars settled across FedWire, CHIPS, and other wholesale systems, the relative fraction of overall payments activity conducted with cash appears almost trivial. Similarly, compared to the pressing problems of rolling global financial crises, macroeconomic under-investment, and a rapidly evolving digital economy, physical currency-related issues like the nationwide shortage of coins experienced last year can feel like a much lower priority.<sup>25</sup>

But why must we triage between such collective problems as if they are zero-sum, rather than addressing them concurrently through different programs and efforts? As noted above, one obvious way in which Congress can promote financial inclusion is through prioritizing the introduction of retail banking services and consumer interface technologies managed by the Postal Service alongside the back-end development of FedAccounts and CBDC infrastructure by the Federal Reserve. Equally importantly, **Congress should direct the Treasury to design, issue, and administer its own system of token-and-wallet-based “eCash” as a complement to the account services provided by the Federal Reserve and Postal Service.**

Members of this Task Force with an interest in legislative history may be interested to note that I am not first person to make such a recommendation to Congress. In 1995, the Electronic Money Task Force of the Treasury Department proposed the creation of a study commission into the creation of a Mint-issued digital currency card, as part of Vice President Gore’s broader National Performance Review initiative to “reinvent government” in light of emerging internet and other digital technologies.<sup>26</sup> In an October 1995 hearing before the House Banking Committee on Domestic and International Monetary Policy on the topic of “The Future of Money,” then-Director of the U.S. Mint, Philip Diehl, testified that **the Mint’s “main interest in the evolution of payments system is ... focused on stored value cards as a potential substitute for coins and currency.”**<sup>27</sup>

Director Diehl further noted that:

“As sole provider of the nation’s coinage, the Mint has an important role in our monetary system. As the use of stored value cards evolves, many consumers might be expected to replace coinage and currency

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25 Ian Richardson, *Fact Check: Yes, There’s a Nationwide Currency Shortage. Here’s Why*, USA Today (July 21, 2020), <https://www.usatoday.com/story/news/factcheck/2020/07/21/fact-check-america-midst-national-coin-shortage/5439455002>.

26 *U.S. Mint Eyes Government’s Own Stored Value Card*, 15(5) Bank. Pol’y Rep. 14 (1996).

27 *The Future of Money – Part 2, Hearing Before the Subcommittee on Domestic and International Monetary Policy of the Committee on Banking and Financial Services*, 104th Cong. (1995) (Statement of Philip Diehl, Director, U.S. Mint), [https://ia802708.us.archive.org/31/items/futureofmoneyhea02unit/futureofmoneyhea02unit\\_bw.pdf](https://ia802708.us.archive.org/31/items/futureofmoneyhea02unit/futureofmoneyhea02unit_bw.pdf).

transactions with ‘e-cash’ transactions, thus creating a new de facto form of currency. ...

**It is [thus] appropriate to ask the question whether at some point in the future the requirements of market efficiency could accelerate the federal government’s role in producing a stored value card that would augment the use of coinage in commercial transactions. ...**

The issuance of a ‘legal tender’ stored value card would also allow the Treasury to regain seigniorage profits that would otherwise be reduced by a decline in the demand for coinage, avoiding the need for additional tax revenue or additional borrowing.”<sup>28</sup>

Director Diehl’s prescient vision of a Treasury-administered system for storing and transferring digital currency balances directly via secured hardware devices is still highly relevant today, even as the technological possibilities have evolved considerably with the advent of mobile phones and other smart wearable technologies. **Rather than promoting financial inclusion within the banking system, the goal of a stored-value or token-based ‘eCash’ system like the one Director Diehl proposed would be to preserve and maintain the same transactional freedoms and functions in the digital space as physical currency has historically provided in the traditional economy.**

**Such a system, importantly, does not replace or undermine the need for other digital fiat currency systems like FedAccounts in any way.** That said, it does implicate a different set of legal considerations and constitutional questions. For example, individuals today typically enjoy limited privacy protections when it comes to account-based financial information, due to the fact that the financial intermediary counts as a “third party” to any and all transactions conducted using the account, thereby obviating any reasonable expectation of privacy between the two transacting parties. Similarly, bank and other payment intermediaries are typically subject to Know-Your-Customer and Anti-Money Laundering requirements that create additional restrictions on how individuals can access and use account-money compared to the token-money in their pockets.<sup>29</sup>

## **5. Token-Based “eCash” is an Essential Component of A Privacy-Respecting Digital Dollar Regime**

It is not uncommon to hear policymakers claim that the adoption of a token-based digital fiat currency instrument that could be used anonymously, offline, in a peer-to-peer manner, without requiring any common ledger or record, would be “radical” or

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<sup>28</sup> *Id.*

<sup>29</sup> See, e.g., Jerry Brito, *Central Banks Are Wrong to Say That CBDCs Must Be Built to Comply With AML Regulations* (June 29, 2020), <https://blog.jerrybrito.com/2020/06/29/cbdc-and-aml>.

“extreme.” I profoundly disagree. **Preserving the right to hold currency and make peer-to-peer payments directly without third-party involvement or approval is a small-c conservative response to the socially disruptive effects of digitization and the internet.** If we do not take active and committed steps to reverse our decline into information and surveillance capitalism,<sup>30</sup> including ending the so-called “War on Cash” that is slowly transforming every aspect of our transactional lives into a digitized data stream that can be centrally surveilled and censored,<sup>31</sup> we will end up in a world in which token-money, and the freedoms and civil liberties that it affords, are functionally extinct.

When considering the case for and against physical cash and digital cash-like technologies, it is tempting, as Harvard Economics Professor Kenneth Rogoff did in his 2016 book, *The Curse of Cash*,<sup>32</sup> to focus on the very worst possible abuses of such technology as proof that it is generally undesirable. Much like in the early debates over the internet itself, it is now common to hear claims today that if we allow anonymity in digital currency networks, we are effectively giving a green light to criminals, money launderers, and terrorists.

I strongly urge members of this Task Force not to be enticed by this crude, albeit seductive, narrative. **Transactional anonymity, like anonymity more broadly, should be understood as a public good and a core bedrock of political freedom in a democratic society.** It is difficult to imagine what America would be today, for example, if the Federalist papers had not been published under a pseudonym, or if the U.S. Supreme Court in *National Association for the Advancement of Colored People v. Alabama*<sup>33</sup> had ruled that the NAACP had turn over its records of membership dues to the Governor of Alabama as part of his harassment campaign in opposition to desegregation and in defense of white supremacy.

It is often asserted that as long as there are adequate privacy safeguards baked into centrally administered systems, then there is little to worry about when it comes to potential for abuse. Again, I would strongly urge members of this Task Force not to

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30 See, e.g., Amy Kapczynski, The Law of Informational Capitalism, 129(5) *Yale L. J.* 1276, <https://www.yalelawjournal.org/review/the-law-of-informational-capitalism>; Julie Cohen, *Between Truth and Power: the Legal Constructions of Information Capitalism* (2019); Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (2019);

31 See, e.g., *License to Bank: Examining the Legal Framework Governing Who Can Lend and Process Payments in the Fintech Age*, Hearing Before the Task Force on Financial Technology of the Committee on Financial Services, 104th Cong. (1995), 24-5, (Statement of Raúl Carrillo, Policy Counsel, Demand Progress Education Fund & Fellow, Americans for Financial Reform Education Fund), <https://www.congress.gov/116/meeting/house/111057/witnesses/HHRG-116-BA00-Wstate-CarrilloR-20200929.pdf>; Brett Scott, *The War on Cash, The Long+Short* (Aug. 19, 2016), <https://thelongandshort.org/society/war-on-cash>.

32 Kenneth Rogoff, *The Curse of Cash: How Large-Denomination Bills Aid Crime and Tax Evasion and Constrain Monetary Policy* (2016).

33 357 U.S. 449 (1958).

indulge in this dangerous fiction, which is typically paired with the personal sentiment that “as long as one is not doing anything wrong, one should have nothing to hide.” **History reminds us time and time again that public actors, even those we tend to consider on the side of right and good, cannot always be relied upon to respect their own bright lines, or to self-regulate the worst excesses of their often well-intentioned desire to compromise individual rights and due process in the pursuit of swift and efficient administration of justice.**

Indeed, it was only days ago that the media reported former President Trump had in 2018 subpoenaed personal data records of Democratic members of Congress, including senior members of the House Intelligence Committee, as well as those of at least one minor relative, as part of a hunt for leakers. If even elected officials, from Representative Schiff to Chancellor Merkel, cannot trust that digital data made available to the U.S. government will remain secure, why should the average American be expected to do so?

Similarly, last month it was reported that Venmo had begun blocking donations made by individuals to Palestinian aid organizations on the grounds that it constituted support for terrorist activities. Whatever one’s views on that particular issue, **it is not difficult to envisage a future in which political donations, even within the United States, become increasingly subject to censorship and monitoring by those in control over the technological means of payment.**

**Perhaps the most important reason of all to be weary of claims that transactional anonymity is obsolete and unnecessary is simply that the future is unpredictable and volatile.** Few could have predicted the rolling economic and political crises and protests of the past decade, or indeed the broader social transformation that the internet and mobile phones have provoked in our collective conscious and daily lives. Digital devices are actively remaking our neural pathways, and we are reaching the point where almost every newborn child will be connected from birth to every other person on the planet via a single, globally networked, digital nervous system.

In the face of such uncertainty and risk of catastrophic error, **the safest and most defensible approach is to adopt a Hippocratic-style principle of “first, do no harm.”** In the context of digital financial privacy, **the best way to limit the risk of data abuses is to not collect it in the first place.**<sup>34</sup> If there is no compelling reason for public authorities to know where or who I am when I buy a meatball sub from a street vendor, then it should be possible to conduct that transaction digitally without generating data that is then made available forever to private platforms and public authorities. In other words, **when it comes to our day-to-day digital monetary affairs, it should be possible to exercise what Fordham Law professor Joel Reidenberg calls “privacy in public.”**<sup>35</sup>

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<sup>34</sup> See, e.g., Carrillo, *supra* fn. 27, at 24.

<sup>35</sup> Joel Reidenberg, *Privacy in Public*, 69(1) Univ. of Miami L. Rev. 141 (2014).

One way to do that is for **policymakers to adopt a principle of “currency neutrality,” in which, like “net neutrality” for internet service provisioning,<sup>36</sup> digital fiat currency systems are treated as common utilities that process payments and store funds as a universal public good.** Of course, that does not mean letting crime run rampant – traditional investigatory and law enforcement methods will continue to be critical to the security and smooth functioning of any digital currency regime. At the same time, however, just as we do not design our taps and waterways to query whether someone has a criminal record before determining whether they are worthy of having their thirst quenched, we should think seriously before embedding in digital fiat currency technologies the capacity to categorically exclude people *ex ante* based on who they are or what they have done in the past.

Of course, it is inevitable that any digital system will generate certain kinds of data and opportunities for surveillance and control. At the same time, however, **there are meaningful and important differences between a digital fiat currency regime committed to preserving the privacy and freedom-respecting features of physical currency, and one built exclusively instead around common ledger or account-based technologies in which all transactions are recorded and censorable by design.** Beyond any one architectural question, these two visions of the future of digital fiat currency represent different sets of values and commitments that, as with the ‘Information Superhighway’ and the other internet metaphors of the 1990’s, can shape how legislators and the public think and respond.

It is noteworthy that in discussions over the future of digital fiat currency, the two actors that get cited most commonly in justification of America issuing its own digital dollar are Facebook and China, both of whom have abysmal records of privacy protection and censorship. **If a digital dollar is to stand for something more than the data-mining and political suppression of the e-Yuan and/or Diem, American policymakers must be willing to articulate and defend a different set of principles and commitments, even when doing so entails difficult choices.**

## **Conclusion**

The decisions made today regarding the digitization of the dollar will reverberate for decades. It is still the early stages, and there are a lot of details and kinks that will need to be worked out along the way. Nevertheless, as my remarks have hopefully conveyed, there are a few general principles and lessons that policymakers can and should keep in mind when embarking on this brave new experiment in the grand old tradition of American money-making.<sup>37</sup> To recap:

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<sup>36</sup> See, e.g., Tim Wu, *Network Neutrality, Broadband Distribution*, 2 J. of Telecom. & High Tech. L. 141 (2003).

**1. Digital Fiat Currency is bigger than CBDCs, and the Federal Reserve is not the only game in town.** Other public agencies, in particular the Treasury and Postal Service, have complementary roles to play in the provisioning of digital fiat currency services alongside any CBDC system of FedAccounts.

**2. Token and Account Based Monies are Complements, Not Substitutes.** They provide different functionality, safeguards, and resiliencies, and should be developed in a parallel, coordinated manner rather than treated as competing alternatives.

**3. The Treasury should develop and administer an ‘eCash’ system of digital dollar tokens that replicates the features and functionality of physical currency in the digital space.** This system would operate alongside and in coordination with FedAccounts, much as physical currency operates alongside and in coordination with bank and other account-money systems today.

**4. The right to transactional privacy and anonymity is a bedrock of political freedom and democracy, and should not be abandoned as we transition to a permanently digitally connected society.** Instead, policymakers should adopt a “do no harm” principle, and commit to preserving “currency neutrality” in both design and implementation.

Thank you, and I look forward to your questions.

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<sup>37</sup> See, e.g., Nathan Tankus, *Treasury Notes*, JSTOR Daily (2021), <https://daily.jstor.org/column/treasury-notes>; Maxximilian Seijo, Scott Ferguson, & William Saas, *Money Politics Before the New Deal With Jakob Feinig*, Money on the Left Podcast (Sep. 13, 2019), <https://mronline.org/2019/09/13/money-politics-before-the-new-deal-with-jakob-feinig>; Christine Desan, *From Blood to Profit: The Transformation of Value in the American Constitutional Tradition*, 20 J. of Pol’y Hist. 26 (2008).