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Introduction

Chairman McHenry, Ranking Members Waters, Subcommittee Chairman Hill and ranking Member Lynch, and Members of the Committee, thank you for the opportunity to testify at today's hearing. My name is Norbert Michel, and I am Vice President and Director for the Center for Monetary and Financial Alternatives at the Cato Institute. The views I express in this testimony are my own and should not be construed as representing any official position of the Cato Institute.

Central banks around the world are actively exploring and have already started launching central bank digital currencies (CBDCs)[1], often pointing to a list of purported benefits for citizens. For instance, U.S. Treasury Under Secretary for Domestic Finance, Nellie Liang, recently claimed that "…CBDCs present opportunities to build a more efficient, competitive, and inclusive U.S. payment system."[2] A careful analysis shows, however, that these purported benefits do not stand up to scrutiny, partly because CBDC advocates fail to meaningfully distinguish CBDCs from the digital dollars that already exist.[3]

CBDC advocates have offered multiple designs that subtly change how a CBDC might operate in practice, but they do not change the basic nature of the CBDC. Thus, the critique that potential CBDC benefits do not stand up to scrutiny applies to all forms of a CBDC. While a CBDC does not offer any unique benefit to the American people, it does pose serious risks to financial privacy, freedom, markets, and cybersecurity.

[1] For example, Nigeria, The Bahamas, the Eastern Caribbean, and Jamaica have launched CBDCs.
[2] Remarks by Under Secretary for Domestic Finance Nellie Liang During Workshop on "Next Steps to the Future of Money and Payments," March 1, 2023, https://home.treasury.gov/news/press-releases/jy1314.
[3] For additional analysis, see Nicholas Anthony and Norbert Michel, "Central Bank Digital Currency Assessing the Risks and Dispelling the Myths," Cato Policy Analysis No. 941, April 4, 2023, https://www.cato.org/policy-analysis/central-bank-digital-currency.

CBDC Basics

A CBDC is a digital national currency that is a liability of the central bank. In the case of the United States, a CBDC would be a digital form of the U.S. dollar that is a liability of the Federal Reserve. This digital liability is the distinguishing feature of a CBDC–it makes CBDCs distinctly different from the digital dollars millions of Americans already use. It is one of the main reasons that a CBDC represents a radical departure from the existing financial system.[4]

Currently, Americans regularly use multiple forms of digital dollars, making digital payments using credit cards, debit cards, prepaid cards, and various mobile applications. This system works so well[5], in fact, that people have little reason to even think about whether the digital dollars they are using are a liability of some private or public institution. Still, when they use these existing forms of digital dollars, the liability ultimately rests with a private company. In practice, this means that a private institution owes the funds.

In the case of a CBDC, however, the digital dollars would be a liability of the central bank itself. That is, the government—in the case of the United States, either the Federal Reserve or the U.S. Treasury—has the direct responsibility to hold, transfer, or otherwise remit those funds to the ostensible owner. This feature creates a direct link between citizens and the central government, a radical departure from the existing American system where private financial institutions create deposits and satisfy demand for retail consumers.

Although advocates have suggested multiple designs for a CBDC, these generally fall into two categories: retail and wholesale.[6] Retail CBDCs are meant for consumer use (i.e., at the retail level), and are supposed to function just like the digital payments that already exist today, thus allowing people to purchase goods, pay salaries, store wealth, etc. Two of the main types of retail CBDCs are the *direct* CBDC and the *intermediated* (indirect) CBDC.[7]

A *direct CBDC* would be available to everyone and managed directly by the central bank. That is, the central bank would keep a record of all balances, implement all transfers, and update its records after every transaction. An *intermediated* CBDC, in contrast, would be provided by the central bank (i.e., would be a liability of the central bank), but would be

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[4] Nicholas Anthony, "Whose Liability Is It Anyway? CBDC Edition," Cato at Liberty, August 7, 2023, https://www.cato.org/blog/whose-liability-it-anyway-cbdc-edition.

[5] To provide a sense of scale, there are 240 million debit transactions a day in the United States. Board of Governors of the Federal Reserve System, "Federal Reserve Payments Study," 2022, https://www.federalreserve.gov/paymentsystems/fr-payments-study.htm

[6] Nicholas Anthony and Norbert Michel, "A Breakdown of the Different CBDC Models," Cato at Liberty, February 10, 2023, https://www.cato.org/blog/breakdown-different-cbdc-models#:~:text=These%20would%20be%20designed%20to,CBDC%2C%20and%20the%20synthetic%20CBDC..

[7] Some advocates and academics refer to a third type of retail CBDC as a "synthetic CBDC," but a synthetic CBDC is not a CBDC at all. What is being described are actually private stablecoins with reserves held in a master account at the central bank. For more information, see Nicholas Anthony and Norbert Michel, "A Breakdown of the Different CBDC Models," Cato at Liberty, February 10, 2023, https://www.cato.org/blog/breakdown-different-cbdc-models.

managed (serviced) by private sector firms. That is, much like mortgage servicers, private financial institutions would maintain CBDC accounts for citizens. In the case of a CBDC, though, the private institution would be servicing the accounts on behalf of the central bank. Thus, the CBDC balances would not be available to fund private lending, a core function that bank deposits currently serve.[8]

Unlike the retail CBDC, the use of a *wholesale* CBDC would be restricted to financial institutions during interbank settlement. In other words, a wholesale CBDC would serve as a way for banks to send money between themselves, settling their own accounts through the Federal Reserve. Critically, CBDCs–neither retail nor wholesale– do not have to be provided using distributed ledger technology (DLT). That is, a central bank could easily provide a CBDC using a centrally controlled database rather than a decentralized blockchain. In fact, the exclusive nature of interbank clearing brings into question why a central bank would ever issue a wholesale CBDC. Put differently, it is unclear why banks would need to tokenize the balances they already settle with each other (electronically) through the Fed.

Myths and Reality for CBDCs

Advocates claim that a U.S. CBDC would provide multiple benefits, such as promoting financial inclusion, increasing competition, spurring faster payments, protecting the U.S. dollar's status as the world's reserve currency, and making monetary (or fiscal) policy easier to implement.[9] As this testimony demonstrates, these arguments do not stand up to scrutiny.

Financial Inclusion

Proponents claim that CBDCs would improve financial inclusion by providing a new source of financial services for America's underbanked and unbanked populations, but they ignore the innovations already taking place in the private sector, as well as what the unbanked want.

For instance, the Federal Deposit Insurance Corporation's (FDIC's) survey of American households reveals that the issue of financial inclusion is not merely a question of providing "access" to financial services for people. According to the survey, more than 72 percent of the unbanked households surveyed said that they were not interested in having a bank account.[10]

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[8] The term *intermediated* has caused some confusion, but in the case of a CBDC, *intermediated* does not refer to the intermediation function that private institutions conduct between people who save (or deposit) and people who invest (or borrow).

[9] For one example, see Tao Zhang, "Central Bank Digital Currency," keynote address at the Conference on China's Trade and Financial Globalization, London, March 19, 2020, https://www.imf.org/en/News/Articles/2020/03/19/sp031920-deputy-managing-director-tao-zhangs-keynote-address-on-central-bank-digital-currency. Also see Anthony and Michel, "Central Bank Digital Currency Assessing the Risks and Dispelling the Myths."

[10] Anthony and Michel, "Central Bank Digital Currency Assessing the Risks and Dispelling the Myths."

When asked why they feel this way, respondents most frequently said that they lack enough money to open an account, avoid the banking system to secure their privacy, and distrust banks in general.[11]

Given that a CBDC would establish a direct line between consumers and the federal government, the same government responsible for the know your customer (KYC) regulations that require citizens to provide personal information to banks, it is unlikely that a CBDC will allay citizens' privacy concerns—especially given that the public's trust of the U.S. government is at historic lows.[12] In fact, unless a CBDC operates without the same anti–money laundering and KYC requirements as banks, it is likely many unbanked Americans would likely avoid a CBDC.

It is also true that private sector institutions have been providing accounts to more people. As online and mobile banking options have proliferated—largely eliminating concerns of inconvenient bank hours and locations—unbanked households in the United States have steadily decreased, falling from 8.2 percent in 2011 to 4.5 percent in 2021.[13] Of course, to the extent that people simply do not have enough money to open a bank account, the "unbanked" problem in the United States is a broad economic policy issue, not merely one solved by providing "access" to any particular financial service.[14]

Faster Payments

Many proponents claim that a CBDC could offer faster payments options. Improving settlement speeds of the payments system in the United States is indeed a noble effort, but a CBDC does not provide a unique, or even additional, benefit compared with the existing developments in the private sector. The private sector has already developed real-time payments (instant settlement) technology, and inefficiencies in cross-border payments are due to a lack of institutional agreements and regulatory issues, not technological deficiencies.

Now that stablecoins—cryptocurrencies with their value pegged to government currencies, short-term securities, or some type of commodity—offer another private-sector solution to payment delays by making transactions possible 24 hours a day, it appears some are

[11] Anthony and Michel, "Central Bank Digital Currency Assessing the Risks and Dispelling the Myths."
[12] Pew Research, "Public Trust in Government: 1958–2022," June 6, 2022, https://www.pewresearch.org/politics/2022/06/06/public-trust-in-government-1958-2022/.
[13] Anthony and Michel, "Central Bank Digital Currency Assessing the Risks and Dispelling the Myths."
[14] It is also problematic to suggest a CBDC would lower the cost of providing accounts to the unbanked. There is nothing inherent in the CBDC technology that private sector firms cannot already employ to provide the same services to the unbanked, and if the added feature of being backed by the government is the determining factor, that feature can be added to any digital financial technology. Thus, this type of argument is merely a question of whether the good/service should be provided publicly or privately.

keen on repeating history by having the Fed interrupt this progress with the launch of a CBDC.[15] Regardless, a CBDC offers no unique settlement advantage to existing alternatives.

World Reserve Currency

Proponents also claim that preserving the dollar's status as the world's reserve currency is a potential benefit of a CBDC, but the dollar's renowned status is owed to the strength of the American economy and its legal protections for private citizens relative to most other countries, not the specific technology enabling electronic transfers. Congress should focus on improving those underlying reasons if it seeks to strengthen the role of the dollar.

For instance, creating stronger financial privacy protections, removing government roadblocks to faster payments speeds, and requiring better transparency in monetary governance would likely benefit the dollar's international status. None of these steps are technology dependent much less unique to a CBDC. Expanding digital options in some underdeveloped countries may be an improvement, but those currencies still have many other problems that prevent them from being used on an international scale.

Moreover, one of the reasons that cryptocurrencies have become so popular is that they have become an important alternative for citizens in many foreign countries whose payments systems are weak and unreliable compared with the U.S. system. The U.S. dollar is in no danger of losing its status simply because the Fed does not have a CBDC, especially if the countries launching CBDCs offer few of the economic and legal protections integral to the U.S. system.

For example, China's CBDC (the e-CNY) is unlikely to attract global demand considering the Chinese government's long history of violating property rights, financial privacy, and other human rights. Likewise, Nigeria's CBDC (the eNaira) is unlikely to attract global demand given Nigeria's volatile inflation and tumultuous history. And finally, the Bahamas's CBDC (the Sand Dollar) is unlikely to attract global demand because the Bahamian dollar doesn't have a wide enough network and the country's economy is not strong enough for it to become an international reserve currency.

Monetary and Fiscal Policy

Advocates also argue that a CBDC could improve the implementation of monetary and fiscal policy. Ostensibly, CBDCs would offer the opportunity to fine-tune the economy at the individual level, open the door for charging negative interest rates, and remove credit and liquidity risks from the market. All three claims are misguided.

[15] Norbert Michel, "The Federal Reserve Should Not Compete With Private Firms," Forbes, December 16, 2018, https://www.forbes.com/sites/norbertmichel/2018/12/16/the-federal-reserve-should-not-compete-with-private-firms/?sh=54514c897f42.

The suggestion that a CBDC could allow policymakers and regulators to fine-tune the economy is as optimistic as it is concerning. Whether it was the 1970s or the 2010s, it is no secret that the Fed has long struggled to reach its policy targets. In fact, given the Fed's poor track record of managing the price level and business cycles, it is more than plausible that the Fed has worsened overall stability.[16] Nonetheless, some argue that by tracking and managing the financial activity of individual Americans, the Fed could finally steer the economy in a positive direction.

For instance, some CBDC proponents argue that the use of negative interest rates is the tool that's been missing from the Fed's arsenal. Although CBDCs may be new, negative interest rate proposals are not. Proponents have long called for banning cash to implement negative interest rates, and using CBDCs to conduct such a policy would likely require a ban on all alternatives just the same (e.g., cash, cryptocurrencies, foreign currencies) because if any options exist to avoid monetary penalties, people will use those options.

Regardless of whether it *could* ever be effective, this sort of policy tool would open the central bank up to enormous political problems because it would be directly responsible for how much–and how little–money people have in their accounts.

Competition

Finally, many advocates argue that CBDCs can attract more customers than the private sector because they provide an option with zero credit risk and zero liquidity risk, but this distinction is misleading. The technology behind a CBDC provides no such benefit. These zero-risk features are wholly due to government guarantees that could be added to any private-sector electronic payment options. Put differently, if Congress wants to ensure that certain payments are conducted with zero liquidity or credit risk, it can do so without a CBDC.

Others, such as Undersecretary Liang, argue that CBDCs could make the payments sector more competitive (and innovative), but admit that such outcomes depend on "decisions about the range of intermediaries that would act as service providers in the CBDC ecosystem, and the requirements to which those intermediaries would be subject."[17] Again, though, the level of competition and innovation in the payments sector is not dependent on any single CBDC technology. It should be obvious that the government can, and, indeed, does, affect the level of competition and innovation in the payments sector with its regulatory decisions.

Liang's statement is disturbing, though, considering that she acknowledges "there are also risks of a retail CBDC, including the potential for runs into a retail CBDC that could destabilize private sector lending during stress periods." Indeed, her statement is even more

[16] George Selgin, William D. Lastrapes, and Lawrence H. White, "Has the Fed Been a Failure?," *Journal of Macroeconomics* 34, no. 3 (2012): 569–96, https://www.sciencedirect.com/science/article/abs/pii/S0164070412000304.
[17] Remarks by Under Secretary for Domestic Finance Nellie Liang.

disturbing given that potential monetary policy benefits could not be realized without eliminating all forms of monetary and payments competition *for the central bank*.

Although a CBDC would not offer any unique benefits to Americans compared with existing technologies, it would pose serious risks.

Financial Privacy Risks

A CBDC could spell doom for what little financial privacy protections Americans still have because it would give the federal government complete visibility into every financial transaction. Indeed, a CBDC would establish a direct link between the government and (ultimately) every single one of each citizen's financial activity.

Currently, a buffer exists between the government and the public's financial activity because that activity is spread across all the different commercial banks and payments services that Americans use. The government may not be required to get a warrant to access much of the financial information housed at these different businesses, but tracking down and working with these businesses adds a buffer—albeit a marginal one. If the government were to provide a CBDC, however, that buffer would cease to exist. All financial data would be only a keystroke away. A CBDC would most likely be the single largest assault to financial privacy since the creation of the Bank Secrecy Act and the establishment of the third-party doctrine.[18]

Risks to Core Freedom

With so much data in hand and consumers so closely connected to the central bank, a CBDC would provide countless opportunities for the government to control citizens' financial transactions and, therefore, their lives. For instance, such control could be preemptive (prohibiting and limiting purchases), behavioral (spurring and curbing purchases), or punitive (freezing and seizing funds).

The programming capabilities of a CBDC could mean that people would be prohibited from buying certain goods or limited in how much they might purchase. For example, advocates have quipped that parents could program their children's lunch money with the condition that it can't be spent on sweets. It's important to consider the extended possibilities of such an option because the technology enables that type of programmability.

Like parents trying to control their children, policymakers could try to curb drinking by limiting nightly alcohol purchases or prohibiting purchases for people with alcohol-related offenses. In the case of the government-mandated lockdowns during the COVID-19 pandemic, a CBDC could have been programmed to only exchange with "essential" businesses or alert the

[18] Norbert Michel and Jennifer J. Schulp, "Revising the Bank Secrecy Act to Protect Privacy and Deter Criminals," Cato Institute Policy Analysis No. 932, July 26, 2022, https://www.cato.org/policy-analysis/revising-bank-secrecy-act-protect-privacy-deter-criminals#bank-secrecy-act-then-now; Nicholas Anthony, "The Right to Financial Privacy," Cato Institute Policy Analysis No. 945, May 2, 2023, https://www.cato.org/policy-analysis/right-financial-privacy.

authorities when citizens incurred travel expenses. The possibilities for the programmability of a CBDC are nearly endless. And in all of them, even the best of intentions are just a few steps away from leading to serious abuses of power.

Aside from the basic programmability that a CBDC would offer for social and political control, one of its most common features is the ability to pay both positive and negative interest rates to curb and spur purchases. In other words, the government provider of a CBDC could easily put money directly into a citizen's account and, just as easily, take money out. Ultimately, implementing such penalties depends on there being no alternative payment methods for consumers, which is one reason that governments introducing CBDCs have been banning cryptocurrencies.[19]

More broadly, governments have long recognized that freezing someone's financial resources is one of the most effective ways to lock an individual out of society. For example, Operation Chokepoint was a U.S. government initiative where officials pressured financial institutions to deny services to politically disfavored businesses (e.g., pawnshops, check cashers, and cannabis dispensaries). As one official described it, the operation was designed to stop these businesses by "choking them off from the very air they need to survive."[20]

Internationally, the Canadian government made headlines in 2022 when it invoked the Emergencies Act to freeze the bank accounts of protestors. In fact, this weaponization of the financial system is such a common problem that many people have turned to cryptocurrencies as a solution to overzealous governments that target the financial accounts of protestors and whistleblowers.[21] A CBDC would stand in direct contrast to this new alternative.

Risks to Free Enterprise

There is also a risk that a CBDC could undermine the very foundation of financial markets. As former Federal Reserve vice chair Lael Brainard explained:

> If a successful central bank digital currency were to become widely used, it could become a substitute for retail banking deposits. This could restrict banks' ability to make loans for productive economic activities and have broader macroeconomic consequences. Moreover, the parallel coexistence of central bank digital currency with

[19] It is true that the CBDC itself is central governments' protective response to the private innovation of cryptocurrency. See, for just one example, Tao Zhang, "Central Bank Digital Currency."
[20] Alan Zibel and Brent Kendall, "Probe Turns Up Heat on Banks," Wall Street Journal, August 7, 2013, https://www.wsj.com/articles/SB10001424127887323838204578654411043000772.
[21] Nicholas Anthony, "How Canada Made the Case for Cryptocurrency, Not CBDCs," Cato at Liberty (blog), March 2, 2022, https://www.cato.org/blog/how-canada-made-case-cryptocurrency-not-cbdcs; Yomi Kazeem, "How Bitcoin Powered the Largest Nigerian Protests in a Generation," Quartz, October 26, 2020, https://qz.com/africa/1922466/how-bitcoin-powered-nigerias-endsars-protests; Andrey Sergeenkov, "China Crypto Bans: A Complete History," CoinDesk, September 29, 2021, https://www.coindesk.com/learn/china-crypto-bans-a-complete-history/; and Nicholas Anthony, "India Seeks to Criminalize Cryptocurrencies," Foundation for Economic Education, March, 26, 2021, https://fee.org/articles/india-seeks-to-criminalize-cryptocurrencies/.

retail banking deposits could raise the risk of runs on the banking system in times of stress and so have adverse implications for financial stability.[22]

Federal Reserve researchers have since attempted to calm this fear by arguing that a CBDC could offer helpful competition to the banks. One paper, for instance, provides a model in which "a deposit-like CBDC with a proper interest rate would encourage banks to pay higher interest to keep their customers" and, therefore, "would not necessarily crowd out private banking." Although the "not necessarily" caveat is likely to prove unconvincing to most private banks, the caveat at the end of the paper demonstrates that the authors' conclusion is more than precarious. The conclusion states, "However . . . [if] the CBDC rate is too high, disintermediation occurs."[23]

In other words, it would be naïve to think that if a CBDC is to be made more attractive than private-sector alternatives, then people would not leave traditional banks. The banking industry is due for a healthy dose of competition, but it is difficult (if not impossible) to compete with the government because private firms must charge enough to cover their costs and earn a profit, whereas the government provider of the same service does not have to do so.

Cybersecurity Risks

Another risk with a CBDC regards the central storage of financial information. Brainard, for example, has warned that "putting a central bank currency in digital form could make it a very attractive target for cyberattacks by giving threat actors a prominent platform on which to focus their efforts."[24]

As recent history has shown, the federal government is not immune from hacks or data breaches.[25] The private sector is not immune either, but it does have the distinct advantage of being decentralized relative to the federal government. Whereas an IRS breach puts all 333 million Americans at risk, a breach at a private financial institution would affect only a fraction of citizens—leaving customers at other banks, for example, free from harm.

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[22] Notably, this speech came before Lael Brainard became one of the leading proponents of CBDCs in the Federal Reserve. Lael Brainard, "Cryptocurrencies, Digital Currencies, and Distributed Ledger Technologies: What Are We Learning?" (speech given at the Decoding Digital Currency Conference sponsored by the Federal Reserve Bank of San Francisco, San Francisco, CA), May 15, 2018, https://www.federalreserve.gov/newsevents/speech/brainard20180515a.htm.

[23] Jonathan Chiu, Mohammad Davoodalhosseini, Janet Jiang, and Yu Zhu, "Bank Market Power and Central Bank Digital Currency: Theory and Quantitative Assessment," Bank of Canada, September 2022, https://www.bankofcanada.ca/wp-content/uploads/2019/05/swp2019-20.pdf.

[24] Lael Brainard, "Cryptocurrencies, Digital Currencies, and Distributed Ledger Technologies."

[25] Nathan Lynch and Brett Wolf, "U.S. FinCEN Leaks to Have 'Chilling Effect' on Fight against Financial Crime, Say AML Experts," Thomson Reuters, September 18, 2020, https://www.thomsonreuters.com/en-us/posts/investigation-fraud-and-risk/fincen-leaks-aml/.

Likewise, cryptocurrencies (e.g., Bitcoin) are often celebrated for the security of their decentralized systems. A hacker may attempt to "break in" to one computer in the system, but such actions do little to affect the countless other computers across the world that verify the system. In contrast, breaking into one computer at the Fed could mean putting the entire economy at risk. That much was made clear when the Fed fell victim to hackers when $101 million was stolen in a cyberattack on the Bank of Bangladesh.[26] And this was not an isolated incident. Between 2011 and 2015, for example, the Fed had more than 50 cyber breaches.[27]

Conclusion

A CBDC does not offer any unique benefit to the American people, but it does pose serious risks to financial privacy, freedom, markets, and cybersecurity. It is distinct from both privately issued stablecoins and the faster payment networks recently launched by private banks and the Fed. A CBDC would ultimately usurp the private sector and endanger Americans' core freedoms; it has no place in the American economy. Congress should explicitly prohibit the Federal Reserve and the Department of the Treasury from issuing a CBDC.

Thank you for the opportunity to provide this information. I welcome any questions that you may have.

[26] Krishna N. Das and Jonathan Spicer, "How the New York Fed Fumbled over the Bangladesh Bank Cyber-Heist," Reuters, July 21, 2016, https://www.reuters.com/investigates/special-report/cyber-heist-federal/.
[27] Jason Lange and Dustin Volz, "Exclusive: Fed Records Show Dozens of Cybersecurity Breaches," Reuters, June 1, 2016, https://www.reuters.com/article/us-usa-fed-cyber/exclusive-fed-records-show-dozens-of-cybersecurity-breaches-idUSKCN0YN4AM.