We Need Fedcoin Now: The Case for a U.S. CBDC

by Richard Holden[20]

Introduction

Central bank digital currencies (CBDCs) are going to be widespread. It's just a matter of time. Already 130 countries, representing 98% of global GDP have begun trials of a CBDC. 64 of these countries are deemed to be in the advanced stages of such trials. 11 countries have already launch a CBDC.[21]

That said, there are important design questions that need to be answered. Will CBDCs be retail or wholesale? Will they fully replace cash? Will they be held on a centralized or a decentralized ledger? How will they interact across countries? What will happen to the commercial banking system in countries which adopt them?

These are fundamental questions, and they will shape not only the form and functionality of these digital currencies. They will shape the future of money, and with it the future of our economies.

It is easy to dismiss the importance of CBDCs by thinking that they are simply part of the payments system. Perhaps they're a little more efficient that existing methods of payment, but how big a difference can this make to real economic activity? The answer is: quite a lot, actually.

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21. https://www.blockchaintechnology-news.com/2024/06/blockchain-firm-ripple-expands-apac-presence-with-japan-and-korea-fund/

This paper proceeds as follows. I first outline the imperative for the established of CBDCs—especially for the United States. I then discuss my proposed design for a U.S. CBDC, based on my recent book "Money in the Twenty-First Century" (Holden, 2024). Finally, I highlight some of the critical issues which this design raises—in particular for the conduct of monetary policy and the role of the commercial banking system—and how these issues can be resolved. I conclude with some brief remarks about political challenges.

Competing with China, and Mark Zuckerberg

Diem

In 2021, Facebook (as it was then known) looked poised a private digital currency it called "Diem". Federal Reserve Chair Jay Powell was in favor, but ultimately the U.S. government refused to support the trial.

The argument for a Diem trial went as follows. If there was going to be a private, global cryptocurrency then it would be better for it to be controlled by an American company like Facebook. That way the U.S. government could play a role in establishing the rules of the game. In any case, Facebook just wanted the go ahead for a trial of *Diem*. What harm was there in that?

The answer to that question, and the argument against, goes as follows.

First, digital currencies involved *network externalities*—the more people who used Diem the more attractive it would be for other consumers to adopt it. This phenomenon leads to winner-take-all markets where one firm ends up with huge market share. Google in search. Uber in ridesharing. Amazon in retailing. And, not incidentally, Facebook in social networks. Was this "just" a trial for Diem, or the first step on an inexorable march to market dominance?

Second, would Facebook really "control" the digital currency? The animating premise of the blockchains on which digital currencies like Bitcoin are built is that they are decentralized and anonymous. This was why a surprisingly large number frozen yoghurt shops in New Hampshire accepted Bitcoin and other digital currencies like Ether. The digital currency movement was born in 2008 out of a distrust of centralized authority in general and government in particular.

Third, cryptocurrencies might have virtues, but they also came with vices. Tax evasion, money laundering, lubricating the arms and illicit drugs trade. These were realities already.

But just because Diem died that summer, doesn't mean that another large technology company couldn't pull off a similar thing. Amazon, Apple, and Google are all companies that could plausibly do so. And the best way to prevent that is to outcompete them rather than regulate them.

China

The e-CNY Rollout

China is miles ahead of any other country in the race to a CBDC. The People's Bank of China (PBOC) began moving to establish the Chinese digital currency (the "e-CNY") in 2014. It created a task force to study issuance, technological requirements, and international experiences. Two years later the PBOC established a "Digital Currency Institute" which developed a prototype digital currency. A year later the PBOC began testing the e-CNY—and gave it that moniker—in partnership with commercial financial institutions.

The e-CNY and the paper yuan are exchangeable at a one-to-one rate, and ATMs that convert the e-CNY into cash have already been trialed. Users simply scan a QR code at the ATM using the digital yuan wallet.[22] The digital currency itself can be purchased through China's six big state-owned banks, as well as through Tencent and Ant Financial/Alibaba.

The e-CNY network follows a model that has been described as "one coin, two databases, three centers". The idea of "one coin" is fairly straightforward—it's the single, government-issued coin or token. The "two databases" are comprised of the PBOC's centralized ledger and the ledgers that are maintained by the lower-tier banks in the network. The "three centers" are data centers that supposedly: (i) holds a database of the true identities of digital wallet holders; (ii) tracks transactions; and (iii) analyzes financial risks and monitors illicit transactions (Greene, 2021).

In March 2022 the PBOC announced that the rollout of the e-CNY would be expanded Chongqing, Tianjin, Hangzhou and Guangzhou, having already been trialed in several cities, including: Beijing, Shenzhen, Shanghai, Suzhou, Xiong'an, Chengdu, Hainan, Changsha, Xi'an, Qingdao and Dalian. Already the

22. See https://www.theblock.co/post/95266/beijing-digital-yuan-cash-atm

Chinese government had used financial incentives for consumers, thereby spurring adoption. This strategy is familiar among Silicon Valley firms in markets with network externalities. And a statement by the PBOC made clear that they will focus on continued further adoption.[23]

Policies must be designed to stimulate creativity and enthusiasm among the banks, technology firms and the local government in the development, promotion and proliferation of the digital yuan

Perhaps an even greater indication of the PBOC's intentions are the plans to trial the e-CNY in global financial center Hong Kong. Eddie Yue Wai-man, head of the Hong Kong Monetary Authority (effectively Hong Kong's central bank) said in February, 2022 that "The pilot testing of e-CNY will be an important move for Hong Kong to strengthen its role as an international offshore yuan trading centre."[24] And there has been a significant expansion of hiring of data and infrastructure at the PBOC's Digital Currency Research Institute (DCRI) for hundreds of data and infrastructure engineers.

It is entirely plausible that China is intent on moving to a full-fledged, retail central bank digital currency. Indeed, the best reading of statement by the PBOC suggest this is the likely intent of the government. For instance, they have said that the e-CNY is designed to "create a new form of RMB that meets the public's demand for cash in the era of digital economy. Supported by a retail payment infrastructure that is reliable, efficient, adaptive and open, the e-CNY system will bolster China's digital economy, enhance financial inclusion, and make the monetary and payment systems more efficient."

It is not hard to imagine a scenario where, over the course of a handful of years, the PBOC manages to orchestrate a transition to a fully digital retail e-CNY that displaces private providers. Once the e-CNY rollout has covered most of the major cities in China the PBOC could move to increase the attractiveness of their digital currency. One natural way to do this is to pay interest on balances in e-CNY wallets. This contains a number of risks. It

23. See reporting in the *South China Morning Post*, available at https://www.scmp.com/tech/policy/article/3172885/china-digital-currency-e-cny-rollouts-expand-hangzhou-and-chongqing
24. See reporting in the *South China Morning Post*, available at https://www.scmp.com/business/banking-finance/article/3166109/hong-kong-sets-stage-e-cny-use-launch-pilot-soon-after?module=inline&pgtype=article

would make the CBDC more attractive than deposits and could damage the banking sector.[25]

But it would certainly create an incentive for people to hold the digital fiat currency rather than the physical RMB. It would be possible to preserve the stability of the banking sector. Alternatively, the PBOC may decide that the "full retail" model where the public all have individual accounts with the PBOC and the banking sector is largely cut out of the picture may end up being more attractive. Certainly, if they decided to go in this direction, it would be unclear what the value proposition of private digital payments companies would be. And it is also unclear what, if any, political or legal recourse they would have.

Competing with the e-CNY

Any analysis of how Fedcoin—or the existing physical U.S. Dollar—would compete with the e-CNY has to start with the functionality of these different currencies. Start with the scenario that China turns the e-CNY into a full-fledged retail currency while the U.S. sticks with the current, physical U.S. Dollar. That is, China basically continues the current rollout plan, squeeze out Alipay and WeChat Pay, and accommodate their domestic banks as planned, while the U.S. makes no serious or effective move toward a CBDC. Meanwhile China probably overtakes the U.S. as the world's largest economy in terms of total output.

This would give China an efficiency advantage in their payments system, and it would improve their ability to crack down on tax evasion and illicit activities. It would also put the e-CNY in prime position to be at the center of a wholesale CBDC settlement regime along the lines of an expanded mBridge. Recall that the PBOC is already a key player in that project. And, without even a wholesale CBDC, the U.S. simple couldn't participate, nor organize a competing network. This

25. As the PBOC (July 2021) has noted: "Some believe that retail CBDC is more attractive than deposits and may lead to financial disintermediation, narrow banking, and credit squeeze, while others argue that easy availability of CBDC can enhance the transmission of policy rates to the money and credit markets. If CBDC bears interest at a relatively attractive level, institutional investors might move from low-risk assets such as short-term government securities to CBDC, which will have an impact on the price of these assets."

would leave China with the most high-tech, highly functional modern domestic currency. And it would make it a considerably more convenient currency with which to settle international foreign exchange transactions. In short, it would be an *economic moment* which could help catapult the e-CNY into the world's global reserve currency. That would have considerable, negative consequences for the United States, and arguably the world more broadly.

A different configuration of competing currencies might involve China adopting the full retail model, as just described, while the U.S. adopts a wholesale CBDC. This might be enough to forestall the rise of the e-CNY as the global reserve currency, while leaving the U.S. with a less modern, less functional domestic currency. It would still be preferable to simply ceding currency leadership.

A third currency configuration is that the U.S. adopts Fedcoin as proposed in Chapter 5, and the PBOC successfully rolls out the e-CNY, but some time ahead of Fedcoin's eventual establishment. This is, in my view, the most likely outcome. It is also the best outcome for the United States. It would give the U.S. a strong—perhaps overwhelming—chance of retaining its status as the global reserve currency. It would have significant domestic benefits in terms of financial inclusion, improve transactional efficiency, and cut down on a range of illicit activities. It would also effectively foreclose the possibility of a private digital currency, preventing all the possible ill effects and loss of policy sovereignty that would arise from such an occurrence.

Now, we shouldn't fool ourselves into thinking that the development of Fedcoin will be costless. Quite apart from what is essentially the research and development program behind it, there will be the transition costs. And, beyond that, there will be running costs of a Fedcoin system. Of course, we shouldn't forget that there are quite substantial costs—spread all throughout the economy—of running a payments system with physical cash. And after a complete transition to a digital currency like Fedcoin these costs will be avoided, which is good news.

But the question of just what the ongoing CBDC system—both in the United States and in other jurisdictions—will cost is an interesting one. On the one hand it will necessarily involve blockchain technology and we already know that operating decentralized ledger technology is expensive. This is seen most starkly in the energy use of the Bitcoin network. Of course, Fedcoin would run

on a centralized ledger, rather than a decentralized one. And there are other consensus protocols than proof-of-work. Will return to this issue in the final chapter and argue that the cost of running the Fedcoin network—purely in terms of running costs—will be small relative to the private equivalent.

Designing a U.S. CBDC: Towards Fedcoin

It would be easy enough to enumerate the various different design dimensions of a CBDC (e.g. wholesale versus retail, centralized versus decentralized ledgers). To tackle this more directly I now propose a specific model for a U.S. CBDC which I call "Fedcoin," and then discuss the pros and cons of this design.[26]

Design Principle 1: Customer Competition

The different models we have already laid out highlight the fact that there are customer-facing activities that are important, in which the Federal Reserve is currently not involved, and which the public benefits from competition among providers. A first point of principle is that competition in the customer-facing aspects of retail banking should be preserved. That does not mean that in a world of both mobile and digital money that there will be a lot of market power or large rents in these activities—but that competition and consumer choice are valuable ends in themselves. Right now, that means preserving retail banking by the Fed not directly competing with those banks on the customer side.

That does not mean necessarily mean preserving the economic power of those retail banks. In an environment where retail banks and payments companies like Square compete to provide terminals to merchants, and where customers largely only need a mobile phone on the payments side, retail banks are unlikely to earn significant revenues from being involved in these activities. Yet at the heart of a govcoin model that involves the public having bank

26. This section drawn verbatim from Holden (2024), but I do not use quotation marks simply for expositional reasons.

accounts with retail banks, those financial institutions will still take deposit from and have relationships with customers. Importantly, this will give these financial institutions access to the data of those customers in terms of spending patterns, account balances, and more. This is valuable information and can confer on these institutions certain advantages in terms of making loans and providing other financial products to those customers. As is currently the case—in a world without the digital money being contemplated here—there is great social value in giving customers ownership over their personal financial data and making it easy for them to switch between retail banks.

This is sometimes called "open banking"—and it is similar to the idea of local-number portability with mobile phone or other telecommunications providers. In that case telcos, and in this case retail banks, should be prevented from erecting artificial barriers that make it costly and time-consuming for customers to switch providers. This, in turn, gives customers more bargaining power, and reduces the fees and charges that a bank can extract from them.

Design Principle 2: Fedcoin as the Backbone of web3

To properly fend off a private digital currency, a Fedcoin needs to have as much of the functionality of a proposal like Libra or Amazons. A central part of this is that what Etherium achieved by having a Turing-complete programming language and digital currency on a single platform must be replicated by Fedcoin. Thanks to Buterin's development of Etherium, we know this is possible. Indeed, because of the open-source nature of Etherium, it is replicable in a technical sense provided that Fedcoin can take the place of Ether in the analogous ecosystem. This requires that Fedcoin adopt a token-based rather than account-based approach.

The difference between these two approaches—something that has been much debated in central bank digital currency pilot programs—is somewhat semantic (Armelius *et al.*, 2020).[27] But it is important. Tokens are what is known as "bearer instruments". They entitle the bearer of them to something of a certain monetary value. Banknotes are also a bearer instrument. By

27. A very helpful discussion, on which the following treatment draws heavily, see Armelius et al. (2020).

contrast, in an account-based approach to Fedcoin would involve a monetary balance, of Fedcoins, in an account at a retail bank.

Another distinction between tokens and accounts is how verification works. For tokens, verification is done by the person receiving it, whereas an intermediary is required to verify the identity of an account holder. For instance, a payment from a traditional bank account is deemed to be valid if the bank confirms that the person making the payment is, in fact, the account holder and not some other party. If the bank makes an error in this verification task then the bank has to return the funds to the true account holder. In this sense, the bank is the residual claimant on verification errors. Under a token-based system, by contrast, what has to be verified is the authenticity of the token itself.

Now tokens—since they are bearer instruments—raise the issue of double-spending. Remember, Satoshi Nakamoto's great innovation was developing a way to prevent such double-spending of tokens using a decentralized ledger. Similarly, a tokenized Fedcoin would involve all transactions being recorded in a ledger to prevent double spending. In principle, that ledger need not be centralized (i.e. held solely by the Federal Reserve).

Notice that this ledger provides a record of what Fedcoins have been used for a by which account holders. This is no different than a credit or debit card—but it is different than cash. It is less anonymous than cash. Now we discussed earlier how some (but certainly not all) of the applications of blockchain technology using smart contracts make use of anonymity to prevent renegotiation in ways that can increase economic efficiency. For instance, this can help avoid the efficiency loss from "hold-up problems". This could still be achieved with a tokenized Fedcoin—even with KYC rules. Knowledge of the "real world" identity of a customer could be walled off from smart contracts and even aspects of the legal system by statute. This way, the true identity of customers could be used to track and prevent the use of Fedcoins for illicit activities such as trade in illegal goods and tax evasion, while still permitting full functionality of smart contracts.

And tokenized Fedcoins would allow for more mundane but very valuable uses of smart money and smart contracts. For instance, conditionality can be built into the exchange of tokens so that actual exchange of the Fedcoin would only occur when certain conditions are satisfied. We've already seen that this is important is simultaneous exchange of currencies (so-called "payment

versus payment" exchanges) and the risks that come with this not occurring as planned (this is known as "Herstatt risk"). It is also very useful in securities trading, which relies on the simultaneous exchange of a security and the "liquidity leg" (also known as "delivery versus payment" exchanges). In fact, once one starts thinking about it, this problem arises in *all spot contracting*. I hand over payment of one form or another and a coffee-shop owners hands me a skim latte. You hand me a cashier's check and I give you the keys to my car, and so on. Some of these exchanges are backed by legal rules about theft or fraud, and others (or additionally) by social norms. But this raises an intriguing question: how much mutually beneficial spot contract doesn't occur because of exchange risk? This type of risk can be avoided using a tokenized Fedcoin together with smart-money or smart-contracting apps.

Of course, people have been grappling with the issues to doing with secure exchanges for important trades like securities for a long time. And, if there is a trusted third party, trade can be made securely. If not we wouldn't have a stock market! For instance, in securities trading this is known as a "central securities depository" and in foreign exchange as "continuous linked settlement". But important innovation in decentralized finance—or DeFi—is happening using distributed ledgers and tokenized payments precisely because of the issues to do with third parties and the frictions created in the process. Thus, a suitably design Fedcoin could help foster this innovation, while also providing little rationale for an alternative purely private-sector solution.

Design Principle 3: A Centralized Ledger

A core consideration in the design of a govcoin is whether the central bank maintains a centralized ledger or not. It is important that this ledger is indeed centralized.

It is certainly possible to have a tokenized govcoin with a decentralized ledger. Indeed, Sweden has piloted such an approach with its "e-krona".[28] The

28. Armelius et al (2020) offer a useful description of how this would work in a system with both a regular currency and a tokenized CBDC. As they put it for the Swedish setting with an e-krona: "Intermediaries, called nodes in the network in the distributed ledger technology (DLT) terminology, exchange central bank reserves in their RIX accounts for newly issued e-kronor assigned to their wallet/vault (step 1 in Figure 3). End-users exchange the desired amount of e-krona through an

distinction here is twofold, but they are connected. These are: (i) whether there is a single core ledger of transactions that is owned by the central bank; and (ii) whether the central bank has a direct contractual relationship with the ender user of the govcoin. Why does this matter? The simple answer is control over illicit activities. Maintaining a core ledger would mean that the Fed would not need cooperation from retail banks in order to take action against bank customers who are engaged in illicit activities. Now this might sound like a moot point when it comes U.S. banks, who would already be strongly inclined to cooperate. But it is far from moot when thinking about non-bank institutions or a fully private digital currency and the provider of that currency.

Thus, under Fedcoin, the U.S. Federal Reserve would provide a "core ledger" where all Fedcoin holders would have digital wallets in which all transactions would be recorded.

Design Principle 4: International Neutrality

While it is reasonable for the U.S. create Fedcoin and seek to maintain its status as the global reserve currency, that should not imply the loss of monetary authority for other countries. In particular, could a Fedcoin mean that a country like Japan could lose control over their monetary policy? Without one important design feature, it could.

To see how imagine that Fedcoin became a popular medium of exchange in Japan. Being a digital coin in a digital wallet it would be hard for Japanese authorities to enforce a law saying that the Yen is the only currency that can be used in Japan. If the network externality flywheel got going—as it easily could—Fedcoin could wind up implicitly replacing the Yen for a meaningful part of the Japanese economy. This would make it borderline impossible for the Bank of Japan to set interest rates in the country.

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intermediary by decreasing the same amount in their commercial bank deposits followed by a deposit onto their e-krona accounts/wallets (step 2 in Figure 3). The customer pays for goods or services from a merchant with e-kronor and thus the customers e-krona account/wallet is decreased by this amount while the merchant's e-krona holdings increase by the same amount (step 3 in Figure 3). If the merchant does not want to increase their e-krona holdings, they can exchange the received amount of e-krona for increased bank deposits through their intermediary (step 4 in Figure 3). The intermediary can either accept the increase of e-krona holdings or exchange these for central bank reserves at the central bank through RIX. In that case, the Riksbank redeems e-kronor in the same way as currently is done with physical cash (step 5 in Figure 3)."

This could be prevented, however, by the U.S. insisting that its commercial banks—responsible for interfacing with customers and enforcing KYC rules—only issue Fedcoin wallets to U.S. nationals. That way, no Japanese citizen could have a Fedcoin wallet and use the coin in Japan. For foreign travelers needing to use Fedcoin in the U.S., they could be issued with time-limited wallets that could only be filled with transferred foreign currency (like Yen).

An alternative would be to have the Fedcoin digital wallet be "region coded", so that it could only be used in the United States and its territories. Either way, an international treaty to ensure that all countries maintained monetary sovereignty would be important for the legitimacy of Fedcoin, and for the U.S. not imposing potentially large costs on other countries.

Implications for Monetary Policy & Commercial Banking

The Fed

Fedcoin would return the way the Fed influences interest rates to the way it was done during the term of Paul Volcker as Fed chair in the late 1970s and early 1980s. When Volcker took over as Fed chair the Federal Funds Rate was managed by increasing or decreasing the amount of reserves in the banking system. The Fed would create a shortage of reserves when they wanted to push official rates up and would create a surplus of reserves when they want to push the rate down. Volcker changed this in a meeting on October 6, 1979. Volcker instituted a change where the quantity of growth in money supply (in reality, bank reserves) would be set and the interest rate would adjust to equilibrate supply and demand. This was consistent with conservative economist Milton Friedman's doctrine of *monetarism* which held that inflation was very closely linked to growth of the money supply—captured in Friedman's aphorism "inflation is always and everywhere a monetary phenomenon (Friedman, 1970)."

There is one important way in which Fedcoin would expand the toolkit of central bankers. It would permit them to set arbitrarily negative interest rates in a simple way. Because Fedcoin is a direct claim on the Federal Reserve—and because it is a digital coin—it can exist in fractional form. It would be straightforward for the Fed to declare that, over the course of a year, each Fedcoin would become worth (say) 0.98 Fedcoins. This would effectively

implement a negative interest rate. And because commercial banks would not be creating their own money—by acting as intermediaries—this would apply to all money in the system.

Commercial Banks

Where would this leave the banking sector—not being able to create credit, but simply involved in interface with customers? On the deposit-taking side nothing would really change. Commercial banks would still provide services to customers, they would be responsible to verifying their identity (KYC rules) and matching it to account/digital wallet codes. And they would still performance the valuable function of making loans—determining credit quality, to whom to lend, and the interest rate on the loan. Banks just wouldn't "create" money—that would be done purely by the Fed.

This loss of credit creation would have one negative impact on commercial banks—seignorage.

How would Fedcoin affect seigniorage? Clearly it wouldn't affect it for the Fed—other than it may be the case that the costs of issuing digital money might be cheaper than issuing paper (or polymer) money and having to replace it when it wears out. But since commercial banks would no longer be creating credit they would lose the seigniorage that they implicitly earn in their current money-creation activities. This could simply be compensated for by the government in any number of ways.

Political Considerations

What about privacy?

Matched against this are concerns about privacy. Now, it's tempting to reprise the quip made by Sun Microsystems CEO Scott McNealy in 1999: "You have zero privacy anyway. Get over it."[29] But privacy is a much more important issue than that. And while the U.S. Constitution may not contain an express right to privacy, the idea lives in a series of amendments that make up the

29. https://www.wired.com/1999/01/sun-on-privacy-get-over-it/

Bill of Rights.[30] And privacy is, at a minimum, an important constitutional value in most liberal democracies. Would a Fedcoin system represent a meaningful threat to privacy?

On balance the answer to this is "no". But it would be silly to dismiss privacy concerns too quickly. There is an important difference between private companies having access to our information and government having access to it. It's true that technology companies have all kinds of personal details about us—including our browser search history. But those companies don't have the coercive power of the state to use that information. By contrast, government has exactly that power, and it's one of the reasons why there has been historical concern about government intrusion on our privacy.

But what information are we talking about here? All that is at issue is what people spend money on. For the most part this is incredibly uninteresting and liable to do absolutely no harm. Of course, some people spend money on good or services that they would be embarrassed to find its way into the public domain. So the incremental concern is that government might know that somebody buys pornography or some other potentially embarrassing item. For all practical purposes, government either has no interest in this kind of information, could already access it, and is in any case preventing from using it in most democracies by existing laws.

That is a minor incremental privacy cost to bear, which must be weighed against a meaningful reduction in tax evasion, illegal drug trafficking, and other socially destructive activities. Most people would agree that's a worthwhile trade to make.

Distrust of Government

An additional—and nontrivial—obstacle to implementing Fedcoin is the significant distrust of government by certain sections of the U.S. public.

An example of this is the sleepy New Hampshire town of Keene (population 23,000) (van Zuylen-Wood, 2021). It is home to the "Free Keene"

30. The First Amendment involves privacy of beliefs. The Third Amendment involves the privacy of one's home (against demands that it be used to house soldiers). The Fourth Amendment concerns privacy of one's possessions and self against unreasonable searches and seizures. And the Fifth Amendment protects the privacy of one's own information to the extent that it afford a privilege against self-incrimination.

movement, which opposes state power in every guise. Not only are taxes bad, so are police, and even parking meters and the parking inspectors who monitor compliance thereby generating revenue for the government. Keene is also the birthplace of the Shire Free Church, whose unlikely mission is weaning its parishioners and their community off government assistance. New York magazine justifiably described Keene as "the per capita crypto mecca of the country." It is a town where frozen yoghurt stores accept Bitcoin, where the merits are various different cryptocurrencies are hotly debate, and is home to the "Bitcoin Embassy," which peddles crypto-themed T-shirts, programming manuals, and books about Austrian economics (van Zuylen-Wood, 2021).

Now Keene might be the extreme case—but there would be substantial political opposition to a U.S. CBDC. And it would likely take substantial inducements to win widespread public support. That said, the lower taxes that might be possible from cracking down on the tax evasion of the few could help. And it might be one of the most powerful tools in address the opioid epidemic, which would also likely be very popular.

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