

The Case *Against* Central Bank

Digital

BY DANTE ALIGHIERI DISPARTE

Currencies

*The real competition
will be over who builds
internet-scale financial
markets infrastructure
and the nature of its
value systems.*

Before the summer of 2019, the case for central bank digital currencies was not positively received by central bankers, judging by the sentiment of their policy speeches and the state of play of public sector digital currency innovation. Indeed, in these digital currency “before times,” the typically invisible hands of central banks were busy dealing with macro-level policy issues, warding off inflation, and keeping employment and other stability targets in line—ostensibly the core competencies of central banks—while avoiding domestic political pressures to break their independence.

This comparative policy peace would be shattered by a white paper announcing the Libra project (a stablecoin payment network backed by the company formerly known as Facebook and twenty-seven other organizations), whose tagline “reinventing money” would cause a global frenzy, raise important questions about the boundaries of money, and, critically, accelerate a range of market responses from the farcical to the adversarial, geopolitical, and competitive. In keeping big tech at bay, 105 central banks began flirting with an even more perilous societal prospect, namely that central banks would become retail banks.

DIGITAL CURRENCY SPACE RACE

The Diem Association (née Libra) was an accelerant of crucial market, policy, and regulatory responses about the future of money and payments. Not

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all of them were good and most ignored how the past is prologue in this debate. On the one hand, financial inclusion advocates underscored the possibilities of pulling 1.7 billion unbanked and 1.3 billion underbanked people into the perimeter of the formal economy with lower-cost payments. While perhaps oversimplified (especially in light of unevolved post-9/11 financial crime compliance frameworks requiring know-your-customer screening), superimpose the global penetration of messaging applications with mobile teledensity, and approximately one billion of the unbanked have access to low-cost, internet-connected devices. If those devices become part of a compliant payment endpoint, proponents argue, the bottom rung of economic mobility is lowered in a global parallel of the financial inclusion gains from well-documented mobile money networks like M-Pesa in Africa. This is no longer an abstraction, as well-regulated dollar-backed digital currencies such as U.S. Dollar Coin (USDC), issued by Circle, are available in more than 191 countries via a network of open digital wallets.

Opponents of this idea, however, would argue—poor be damned—that issuing money is a sovereign activity and, therefore, the only solution is for central banks to digitize their national currencies. The boldest and most material of these CBDC developments was launched by the People's Bank of China following the Chinese government's accelerated national blockchain plans, which were also catalyzed by big tech fears and geostrategic motivations.

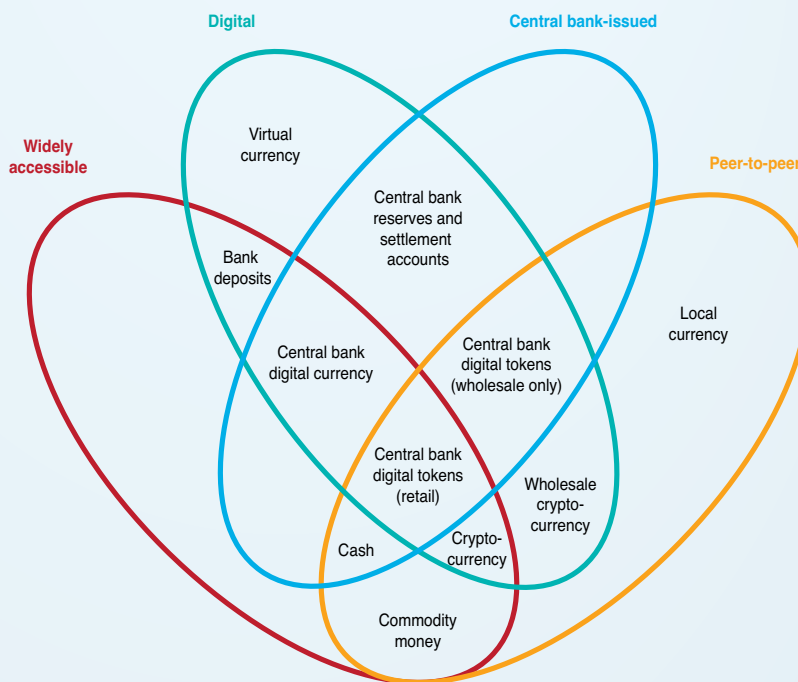
According to the Atlantic Council's GeoEconomics

*CBDCs may be little more than
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Center, 105 central banks representing 95 percent of the world's GDP are in some form of study on the risks and opportunities presented by CBDCs. These efforts often obfuscate a void of real-time gross settlement systems

The Money Flower

The real innovation lies in the petals of the money flower and where and how they overlap.



Source: Bank for International Settlements.

and open banking networks, which are perilously behind schedule in the United States and other major economies.

Tellingly, many CBDC designs, including China's, impose balance limits on digital wallets for fear of flight-to-quality pressure on bank deposits. The question is thus raised: Should central banks disrupt the intermediated banking and regulated payment system in such a way, when these intermediaries are the conduits of monetary policy transmission?

The case for CBDCs is often framed as a panacea for ills in the banking system that could be solved with policy and rules-based competition, rather than taxpayer-borne science experiments with money. One such example is a U.S. postal banking project in 2021 that only had six people participate, which underscores that in a democracy, the most prominent features of money are value-added intermediation, privacy preservation, and censorship resistance. Technological obsolescence, cybersecurity, and compliance concerns militate against

	Payment Stablecoins (e-money tokens)	CBDCs
Issuer	Regulated bank and non-bank actors.	Central banks.
Intermediation	Issued via bank and non-bank actors and intermediated across multiple, open blockchain networks, virtual asset service providers (VASPs), banks, and payment companies, among others.	Depending on the design structure (for example, wholesale, retail, general purpose, or hybrid), CBDCs may be intermediated via authorized bank and non-bank actors.
Holder/User Rights	Digital bearer instrument with the right of redemption at par for one unit of the underlying reference fiat currency, even in the issuer's bankruptcy, subject to bankruptcy remoteness, segregation of funds, and preservation of principle under money transmission and or e-money frameworks.	Digital legal tender status invoking the full faith and credit of the issuing central bank's public balance sheet and backstop.
Legal Classification	Emerging treatment as electronic stored value in the United States, or e-money tokens in Europe and other jurisdictions.	Digital legal tender status or as yet undefined as CBDCs remain largely theoretical among most central banks.
Prudential Risk	Potential for losses of confidence and bank-like run risks if economic stabilization mechanisms skew from conservative cash, short-dated government obligations, and high-quality liquid assets (HQLAs). Potential for direct custody of cash at central banks.	Notional infinite liability and no counterparty risk. However, depending on the CBDC structure, central banks would move from becoming a responder of last resort to systemic financial risk, to a responder of first resort.
Governance	Governed by regulated single-issuer or multi-issuer frameworks, payment system consortia, banks, and non-bank actors.	To be determined, but ostensibly governed by central bank authorities, boards, or public-private consortia involving authorized intermediaries.
Financial Integrity	Anti-money laundering (AML), countering the financing of terrorism (CFT), sanctions compliance, and know-your-customer (KYC) obligations borne by regulated intermediaries and virtual asset service providers (VASPs). On-chain financial transactions are transparently recorded down to micropayments combating illicit activity.	Anti-money laundering (AML), countering the financing of terrorism (CFT), sanctions compliance, and know-your-customer (KYC) obligations possibly borne by central banks (depending on CBDC design) and authorized intermediaries. Transactions potential recorded in opaque, non-public records.
Fungibility	Possible one-to-one exchange of comparably regulated and backed payment stablecoins or e-money tokens, subject to market conduct and payment system interoperability.	Possible free exchange inside contiguous national territory, with the risk of global balkanization on geopolitical, strategic, and economic grounds.
Economic Design	Designed with constant one-to-one backing of underlying reference currency reserves, while holding strict asset-liability management retaining price parity, liquidity, and redeemability at par (even in conditions of market stress), without maturity transformation or fractionalization. Designed as an open, programmable, and composable medium of exchange on the internet fighting buyer's and spender's remorse.	Designed for economic parity with national currency(ies) affording legal, price, and economic certainty to end users, subject to account balance limitations for fear of sparking a run on bank deposits.
Technology Infrastructure	Multiple open-source, non-proprietary permissionless blockchains or closed proprietary bank and payment system technologies, including distributed ledger technologies (DLT). Constantly upgradable technology subject to competition.	Permissioned or proprietary technology, subject to public procurement, vendor captures, or national encroachment or soft expropriation of financial services or technology firms. Operating certainty and conservatism poses technology obsolescence risk.
Digital Wallet(s)	Global, open networks of device-centric digital wallets serving retail, wholesale and emerging use cases for payment stablecoins, e-money tokens and other digital assets.	Government or authorized intermediary-issued proprietary digital wallets depending on CBDC design.
Monetary Policy	Responsive to monetary policy and its transmission as a function of underlying reference assets and circulation being driven by supply and demand factors.	Monetary policy directly transmitted by central banks and authorized intermediaries, with potential dislocations of fractional reserve bank deposits or implied domestic "flight to safety" risks.
Balance Limitations	None. Subject to payment stablecoin open value chain, liquidity, circulation custodians, VASPs, and other regulated market participants.	Balance limits likely to be imposed based on CBDC design considerations, geographic limitations, and concerns about deposit base and interoperability.
Geographic Scope	Global.	Domestic with likely cross-border interoperability, subject to capital controls, balance, and other limitations.
Principle Use Cases	Internet scale, device centric, low-cost, high-trust, programmable, composable internet money and payments.	Authorized domestic fast payments, government-to-citizen money transfer, financial inclusion, provision of digital public goods.
Privacy Features	Intermediated, privacy-by-design features, cryptography powered competitive blockchain networks.	Still being determined depending on CBDC design and authorized intermediary approaches.
Settlement Finality	Increasingly approximating mature payment system transaction throughput with near-instant settlement finality, approaching fractional transaction costs when compared to proprietary systems.	As yet undetermined, but based on reported experiments, such as the Federal Reserve Board's Project Hamilton report, high-throughput transaction flows at population scale are possible, but necessitate centralized technology more suitable for wholesale use cases than retail-level transactions.

most CBDC structures as presented today, among other risks that are often ignored. These would only amplify the prevalence of single-source-of-failure infrastructure and honey-pot databases in the global economy. Recall the 2017 Equifax data breach. It not only laid bare the case for new forms of digital identity, but also exposed a lifelong societal erosion of privacy for the basic right of financial access. Simply put, a central bank has to make a hundred-year technology bet for a CBDC return on investment to make sense. Meanwhile, free societies, from whom central banks are endowed with their sovereign authorities, would have to make a generational bet that the extreme temptations of deplatforming people from money or micro-level surveillance are resisted.

In the United Kingdom, a parliamentary inquiry on CBDCs concluded with an indictment that CBDCs may be little more than a solution looking for a problem. Other central banks and public authorities are joining the chorus, from Australia to Scandinavia, although their voices are still whispers compared to calls for CBDCs to be launched.

Meanwhile, the prospect of another “vanity coin” project from a big tech firm seems unlikely, particularly if the transmission networks resemble those of closed monetary airline miles due to anti-competitive pressures.

China tech fears, however, have been realized with the launch of the e-CNY at the Beijing Winter Olympics in 2022. By some estimates, more than 260 million e-CNY-enabled digital wallets were activated

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It may be winning it.

as of January of 2022, a number that has surely grown exponentially. National security experts argue that the e-CNY may become the tip of a technological spear that can spread a parallel, global, and sanctions-evading money movement network through China’s Belt and Road Initiative. Thus the supremacy of the U.S. dollar as the global reserve currency wanes. In the race to “out-China China,” CBDC proponents would be wise to remember that a national digital currency is the sum of its parts, as former U.S. Treasury Secretary Hank Paulson

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admonished. The real digital currency breakthrough innovation is in the underlying payment rails.

But is there a counter-narrative to the CBDC argument that often gets lost in the cryptocurrency conundrum? The real space race was won when political leaders marshaled a whole-of-society response by providing a destination. Challenging the reign of the internal combustion engine does not change the rules of the road for safe mobility. The same should hold true with responsible financial services innovation in the movement of money. After all, virtually all “value-added” money in the global economy is already privately issued through the two-tiered fractional reserve banking system or via private sector or consortium money transmission rails. By this measure, a CBDC would be tantamount to the Federal Aviation Administration flying planes and building jet engines, rather than defining competitive, rules-based safe passage in the skies. The geopolitical reality of air travel gave rise to national flag carriers. Perhaps the same will hold true of private sector actors in the digital currency market?

Traditional “brick-and-mortar” forms of money, like the internal combustion engine, have some limitations in their fitness for a technology-powered future. Economy-transforming industries emerged from the space race, enhancing connectivity, economic competitiveness, and security. A similar trans-Atlantic policy tipping point may be at hand, but the United States and Europe should follow the example of the UK Parliament by eschewing CBDCs and embracing well-regulated free market competition for the movement of money.

Continued on page 68

Continued from page 57

There is no better place to start than pulling privately issued digital currencies backed by fiat currencies (payment stablecoins or e-money tokens) into the regulatory perimeter. Europe's far-reaching Markets in Crypto Assets Framework, which was also accelerated courtesy of big tech fears, comprehensively achieves this, but appears in conflict with the European Central Bank's insistence on digitizing the euro. The French can create a new word for email (*courriel*) to avoid language-corrupting transliteration. However, a digital euro issued by the ECB would be the equivalent of European authorities creating a closed pan-European monetary intranet.

A THOUSAND FLOWERS BLOOMING

The Bank for International Settlements has long studied the emergence of cryptocurrencies and potential financial technology challengers to central banking and the macroprudential framework. In classifying the different types of money in circulation in the global economy, the BIS money flower (see figure) offers a useful taxonomy for the universe of money, its form factor, and market accessibility. Rather than letting a thousand flowers bloom, the real innovation lies in the petals of the money flower and where and how they overlap. Neither big tech nor China tech are powering this revolution in money. Rather, it is being increasingly powered by pro-competition open-source technology, which leverages public blockchain infrastructure to create a veritable internet of value, albeit in its dial-up phase.

Where widely accessible, digital and peer-to-peer forms of money overlap is where the emergence of well-regulated payment stablecoins begins. Nearly all of these privately issued digital currencies, more than \$150 billion worth, reference the U.S. dollar to varying but increasingly

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improving degrees. While none of them enjoy the full faith and credit of the U.S. government as digital legal tender, which would imply a public backstop or a systemically important financial institution designation from the Financial Stability Oversight Council, which would be unlikely, some enjoy the full faith and credit of the U.S. regulated banking system. All of them, some good and others stable-in-name-only, are designed as a native form of cryptographic internet money for Thomas Friedman's hot, flat, and crowded world.

SETTLEMENT FINALITY

By this measure, despite the regulatory and policy reticence of the United States and other countries in acknowledging the breakthrough innovation presented by blockchain for how people send, spend, save, and secure money, the United States is not losing the digital currency space race. It may be winning it. The one distinction, however, is that China's e-CNY enjoys digital legal tender status and all the potentially insidious powers this confers to the government. While policymakers in the United States and around the world continue to grapple with regulating risk-prone and fast-moving cryptocurrency markets, an emerging world of safe always-on internet money is here under the banner payment stablecoin. As private sector digital currency innovations increasingly enjoy legal and regulatory clarity, along with mass adoption with 75 percent of the world's payment networks planning on increasing acceptance, they will be understood as completing unfinished work in the banking system, rather than competing with it. The real competition therefore is not a CBDC or not-to-CBDC question, but rather who builds internet-scale financial markets infrastructure and whose value systems are imbued in code and conduct. ◆