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## EVERYBODY WANTS TO RULE THE WORLD: CENTRAL BANK DIGITAL CURRENCIES IN THE ERA OF DECOUPLING THE WORLD'S TWO LARGEST ECONOMIES

James M. Cooper

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EVERYBODY WANTS TO RULE THE WORLD: CENTRAL BANK DIGITAL CURRENCIES IN THE ERA OF  
DECOUPLING THE WORLD'S TWO LARGEST ECONOMIES

*James M. Cooper*<sup>1</sup>

ABSTRACT

Some 130 central banks around the world are experimenting with various levels of a central bank digital currency (“CBDC”), a digitized form of a sovereign-backed, national currency that is a liability of that country’s central bank. Unlike fiat currency, CBDCs are trackable and potentially subject to interference and even freezing by government authorities. CBDCs will affect citizens’ control over commerce, payments, and savings, and impact their privacy rights. The Chinese government has piloted, refined, and rolled out its own CBDC called the Digital Currency/Electronic Payment initiative (“DC/EP”), also known as the *digital yuan* or e-CNY. The Chinese government is far ahead of the governments of other countries in terms of integrating its CBDC into its national economy, and this new system has the potential to disrupt the U.S. dollar as the world’s reserve currency. The United States government, on the other hand, has been slow to even pilot a *digital dollar*, as there is much resistance to potential government control of consumer behavior and concern over privacy rights. This Article explores these trends in the context of the decoupling of the world’s two largest economies.

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**TABLE OF CONTENTS**

I. INTRODUCTION	3
II. WHAT IS A CENTRAL BANK DIGITAL CURRENCY?	7
III. CHINA IS THE BIGGEST CENTRAL BANK DIGITAL CURRENCY FIRST MOVER	9
IV. THE SLOW DEVELOPMENT OF A CENTRAL BANK DIGITAL CURRENCY IN THE UNITED STATES	12
V. WHAT THIS MEANS FOR GEOPOLITICS AND THE FUTURE OF THE UNITED STATES DOLLAR AS THE GLOBAL RESERVE CURRENCY	18
VI. CONCLUSION	21

## I. INTRODUCTION

On April 7, 2023, the United States (“U.S.”) Federal Reserve (“Fed”) had to publish a statement to explain that the FedNow program, a payment service for instant payments scheduled to go live in July 2023, was not related to a U.S. dollar-based central bank digital currency.<sup>2</sup> The idea of a U.S. CBDC – the so-called *digital dollar*<sup>3</sup> – was anathema to so many critics, conspiracy theorists, fear-mongers, and politicians that the Fed was forced to allay concerns that it was sneaking in a CBDC through the backdoor.<sup>4</sup> It had to explain its position this way:

While the Federal Reserve has made no decisions on whether to pursue or implement a central bank digital currency, or CBDC, we have been exploring the potential benefits and risks of CBDCs from a variety of angles, including through technological research and experimentation. Our key focus is on whether and how a CBDC could improve on an already safe and efficient U.S. domestic payments system.<sup>5</sup>

It is not just the United States government that is considering the manner in which to best utilize a CBDC (and if it will do so at all). The Atlantic Council reported that “130 countries, representing 98 percent of global GDP, are exploring a CBDC. In May 2020, only 35 countries were considering a CBDC. A new high of 64 countries are in an advanced phase of exploration (development, pilot, or launch).”<sup>6</sup>

There has indeed been an explosion of projects in so many countries over the last few years.<sup>7</sup> As of this writing, CBDCs have been launched in Nigeria, The Bahamas, Jamaica, and

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<sup>2</sup> @federalreserve, X (Apr. 6, 2023, 10:29 AM), <https://twitter.com/federalreserve/status/1644391858733187082>; U.S. Federal Reserve, *Is the FedNow Service replacing cash? Is it a central bank digital currency?*, <https://www.federalreserve.gov/faqs/is-fednow-replacing-cash-is-it-a-central-bank-digital-currency.htm> (last updated July 12, 2023).

<sup>3</sup> A digital dollar would help future-proof the greenback and allow individuals and global enterprises to make payments in dollars irrespective of space and time. We are launching the Digital Dollar Project to catalyze a digital, tokenized U.S. currency that would co-exist with the other Federal Reserve liabilities and serve as a settlement medium to meet the demands of the new digital world and a cheaper, faster and more inclusive global financial system. J. Christopher Giancarlo, *Leading The Discussion On Future Of The US Dollar*, THE DIGITAL DOLLAR PROJECT, <http://www.digitaldollarproject.org> (last visited Jan. 19, 2024).

<sup>4</sup> Emily Parker, *Central Bank Digital Currencies Are Unexpectedly Becoming a Presidential Election Issue*, COINDESK (May 4, 2023, 8:01 AM), <https://www.coindesk.com/consensus-magazine/2023/05/04/central-bank-digital-currencies-are-unexpectedly-becoming-a-presidential-election-issue/>.

<sup>5</sup> U.S. Federal Reserve, *Central Bank Digital Currency*, <https://www.federalreserve.gov/central-bank-digital-currency.htm> (last updated Apr. 20, 2023).

<sup>6</sup> Atlantic Council, *Central Bank Digital Currency Tracker*, [https://www.atlanticcouncil.org/cbdctracker/?utm\\_source=Iterable&utm\\_medium=email&utm\\_campaign=campaign\\_2872985](https://www.atlanticcouncil.org/cbdctracker/?utm_source=Iterable&utm_medium=email&utm_campaign=campaign_2872985) (last visited Jan. 19, 2024).

<sup>7</sup> IMF, *IMF Approach to Central Bank Digital Currency Capacity Development*, INT’L MONET. FUND (Apr. 10, 2023), <https://www.imf.org/-/media/Files/Publications/PP/2023/English/PPEA2023016.ashx>; IMF, *New Economy Forum: IMF Approach to Central Bank Digital Currency Capacity Development*, INT’L MONET. FUND (Apr. 12, 2023), <https://www.imfconnect.org/content/imf/en/annual->

the Eastern Caribbean.<sup>8</sup> Two projects—in Ecuador and Senegal respectively—have been abandoned.<sup>9</sup> Venezuela’s CBDC project, *the Petro*,<sup>10</sup> and Iran’s CBDC project, the *Ramzrial*,<sup>11</sup> are attempts at evading U.S. sanctions against their respective regimes. And while a majority of the governments around the globe are in the process of researching, constructing, or deploying central bank digital currencies, there are concerns about various CBDC initiatives in light of control that authoritarian and non-authoritarian governments alike could exercise.<sup>12</sup>

CBDCs could enable governments to access citizens’ transaction data, which could be used to track and monitor their financial transactions, potentially violating their privacy and economic freedom. This data could also be shared with other government agencies or private entities, leading to ever higher degree compromised data privacy of citizens. Resulting from the compromised data privacy governments could gain more control over citizens’ financial transactions, which could lead to an increase in state surveillance and a decrease in economic freedom. Governments could use their newly gained powers by excusing them with the need to control of inflation [sic], manage economic instability, or support certain industries.<sup>13</sup>

Such concerns have become so rampant that the Human Rights Foundation released a tracker online “to chart the development and implementation of central bank digital currencies . . . by governments worldwide.”<sup>14</sup>

Former central bank authorities outside the U.S. have posited other reasons to slow down or reconsider CBDC implementation. Ignazio Angeloni, a former Deputy Director General of Research at the European Central Bank wrote: “CBDCs are really needed only if your payment

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meetings/calendar/open/2023/04/12/174213.html?calendarCategory=T2ZmaWNpYWwvQnkgSW52aXRhdGlvbG==.UHJlc3M=.T3Blbg==.

<sup>8</sup> Rina Bhattacharya, Dmitry Vasilyev, & Mauricio Villafuerte, *Interest in Central Bank Digital Currencies Picks Up in Latin America and the Caribbean While Crypto Use Varies*, INT’L MONET. FUND (June 22, 2023), <https://www.imf.org/en/News/Articles/2023/06/22/cf-interest-in-cb-digital-currencies-picks-up-in-latam-the-caribbean-while-crypto-use-varies>.

<sup>9</sup> ATLANTIC COUNCIL, *supra* note 6.

<sup>10</sup> James Cooper, *With Hyperinflation, Venezuela’s Cryptocurrency is Magical Unrealism*, THE HILL (Aug. 18, 2018), <http://thehill.com/opinion/finance/402441-with-hyperinflation-venezuelas-cryptocurrency-is-magical-unrealism>.

<sup>11</sup> Dominic Dudley, *Iran Launches Central Bank Digital Currency Scheme With Local Banks and Shops*, FORBES (Sept. 29, 2022), <https://www.forbes.com/sites/dominicdudley/2022/09/29/iran-launches-central-bank-digital-currency-scheme-with-local-banks-and-shops/?sh=10463dc7672b/>.

<sup>12</sup> Human Rights Foundation, *CBDC Tracker Executive Summary* (Nov. 14, 2023), <https://hrf.org/cbdctracker/cbdc-tracker-executive-summary/>.

<sup>13</sup> Patrick Schueffel, *CBDCs: Pros and Cons - A Comprehensive List and Discussion of the Advantages and Disadvantages of Central Bank digital Currency*, J. OF DIGITAL ASSETS (Aug. 2023), at 18, 19, [http://journal-digitalassets.org/browse/issue\\_detail.php?issue\\_id=6&id=8&display=all&mdiv=current](http://journal-digitalassets.org/browse/issue_detail.php?issue_id=6&id=8&display=all&mdiv=current).

<sup>14</sup> Human Rights Foundation, *CBDC Tracker*, [https://cbdctracker.hrf.org/home?\\_ga=2.181453922.498251503.1700777553-375245579.1700777551&\\_gl=1\\*17aqmw3\\*\\_ga\\*Mzc1MjQ1NTc5LjE3MDA3Nzc1NTE.\\*\\_ga\\_DTQ70Z5XP8\\*MTcwMDc3NzU1MS4xLjEuMTcwMDc3NzYxMy4wLjAuMA.\\*\\_ga\\_BQWCXSLYLY\\*MTcwMDc3NzU1NC4xLjEuMTcwMDc3NzYxNC42MC4wLjA.\\*\\_ga\\_BBRZKWF7K\\*MTcwMDc3NzU1My4xLjEuMTcwMDc3NzYxNC4wLjAuMA](https://cbdctracker.hrf.org/home?_ga=2.181453922.498251503.1700777553-375245579.1700777551&_gl=1*17aqmw3*_ga*Mzc1MjQ1NTc5LjE3MDA3Nzc1NTE.*_ga_DTQ70Z5XP8*MTcwMDc3NzU1MS4xLjEuMTcwMDc3NzYxMy4wLjAuMA.*_ga_BQWCXSLYLY*MTcwMDc3NzU1NC4xLjEuMTcwMDc3NzYxNC42MC4wLjA.*_ga_BBRZKWF7K*MTcwMDc3NzU1My4xLjEuMTcwMDc3NzYxNC4wLjAuMA), (last visited Jan. 19, 2024).

system is inefficient and competition and regulation fail to solve the problem.”<sup>15</sup> Mervyn King, the former Governor of the Bank of England stated: “By far the most important question is what is the problem to which a CBDC is the solution?”<sup>16</sup>

In the United States, pundits worry about, among other things, the threat to freedom that CBDCs pose.<sup>17</sup> Critics like the Cato Institute have concluded: “There is no reason for the federal government to issue a CBDC when the costs are so high and the benefits so low. Congress should ensure that the federal government does not issue a CBDC.”<sup>18</sup> Regulators and legislators have come out against a digital dollar over fears that future consumer consumption would be linked to an agenda of promoting Environment, Social, Governance (ESG) standards<sup>19</sup> and other “woke” agenda criteria.<sup>20</sup> There is so much resistance to a U.S. CBDC that a legislative project was put forward to stop the advent of the digital dollar over privacy concerns.<sup>21</sup>

U.S. politicians along the entire political spectrum appear to compete in their denunciation of any attempts to digitize the U.S. dollar.<sup>22</sup> At this writing, several Presidential candidates—Robert F. Kennedy Jr.<sup>23</sup> and Ron DeSantis, Governor of Florida, and Vivek Ramaswamy—made the digital dollar a campaign issue for the 2024 vote.<sup>24</sup> So did former

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<sup>15</sup> Ignazio Angeloni, *Letter: Banking in US would make anyone a CBDC convert*, FIN. TIMES (Sept. 17, 2023), <https://www.ft.com/content/22bd78d9-c299-42b3-b9f4-c99ba63eed55>; Martin Arnold, *The Digital Euro: A Solution Seeking a Problem?*, FIN. TIMES (May 4, 2023), <https://www.ft.com/content/7c892d3b-c646-4247-9504-5f755e486101> (“I don’t see any big failures in the market that require the public sector to step in and provide a digital euro.”); *Id.*

<sup>16</sup> Justin Cash, *Ex-BoE Governor Mervyn King, Calls Bitcoin a “Solution Without a Problem”*, FIN. TIMES (Jan. 18, 2022), <https://www.fnlondon.com/articles/ex-boe-governor-mervyn-king-calls-bitcoin-a-solution-without-a-problem-20220118>.

<sup>17</sup> See Aubrey Strobel, *Opinion: CBDCs Will Be the End of the American Freedom*, NEWSWEEK (Jan. 27, 2022), <https://www-newsweek-com.cdn.ampproject.org/c/s/www.newsweek.com/cbdcs-will-end-american-freedom-opinion-1673676?amp=1>.

<sup>18</sup> Nicholas Anthony & Norbert Michel, *Central Bank Digital Currency: Assessing the Risks and Dispelling the Myths*, CATO INST., 1 (Apr. 4, 2023), <https://www.cato.org/policy-analysis/central-bank-digital-currency>.

<sup>19</sup> Nicholas Anthony & Norbert Michel, *The Risk of CBDCs*, CATO INST. (Feb. 22, 2023), <https://www.cato.org/study/risks-of-cbdcs>.

<sup>20</sup> Paul Krugman, *Opinion: The Weird New War on ‘Woke’ Money*, N.Y. TIMES (Apr. 7, 2023), <https://www.nytimes.com/2023/04/07/opinion/desantis-digital-currency-florida.html>.

<sup>21</sup> Benjamin Pimentel, *A new bill says the Fed shouldn’t issue digital dollars directly to individuals*, PROTOCOL (Jan. 12, 2022), <https://www.protocol.com/emmer-cbdc-bill>. Rep. Tom Emmer, Press Releases: Emmer’s CBDC Anti-Surveillance State Act Passes Financial Services Committee (Sept. 20, 2023), <https://emmer.house.gov/2023/9/emmer-s-cbdc-anti-surveillance-state-act-passes-financial-services-committee#:~:text=The%20White%20House%20issued%20an%20Executive%20Order%20placing,privacy%20for%20a%20surveillance-style%20central%20bank%20digital%20currency>.

<sup>22</sup> Sam Sutton, *A tough crowd for the digital dollar*, POLITICO (Mar. 2, 2023), <https://www.politico.com/newsletters/morning-money/2023/03/02/a-tough-crowd-for-the-digital-dollar-00085126>.

<sup>23</sup> Ali Swenson, *RFK Jr.’s independent run for president draws GOP criticism and silence from national Democrats*, ASSOCIATED PRESS (Oct. 9, 2023), <https://apnews.com/article/rfk-jr-presidential-campaign-independent-2024-30d940109c4956de9c81f332ec418463>.

<sup>24</sup> Allyson Verspille, Daniel Zuidijk, Ryan Teague Beckwith, & Mark Niquette, *U.S. Presidential Hopefuls Rally Against a Digital Dollar Ahead of 2024 Elections*, BLOOMBERG (Apr. 22, 2023), <https://www.bloomberg.com/news/articles/2023-04-22/us-presidential-hopefuls-rally-against-us-cbdc-plans-ahead-of-2024-elections?embedded-checkout=true>.

President Donald J. Trump.<sup>25</sup> Concerns over national security and the dominance of the U.S. dollar as the global reserve currency also persist.

The People's Republic of China ("China") does not share such concerns about privacy, security, or the impact of CBDCs on the existing global financial system.<sup>26</sup> For the ascending superpower, this is an opportunity: On October 24, 2019, a day now called "China Blockchain Day," President Xi Jinping announced his country's blockchain strategy and the rollout of its new state-sanctioned cryptocurrency project.<sup>27</sup> The country's authorities launched its Digital Currency/Electronic Payment initiative ("DC/EP," also called e-CNY, *digital yuan*, or *digital renminbi*)<sup>28</sup> with initial testing in the cities of Suzhou and Shenzhen.<sup>29</sup> The system's strength has been its interoperability and the fact one does not have to be online to use it.<sup>30</sup> Its linkage to the Chinese national currency—the yuan (or renminbi)—does not hurt either.<sup>31</sup> By layering insurance, healthcare, finance, energy, and consumer purchasing into one unified public blockchain, there should be economies of scale and more efficient distribution of private and public goods.<sup>32</sup>

This Article explores the different approaches that the two global superpowers—the United States and China—are taking toward the development and deployment of their respective CBDCs. This introduction, Part I, provides the outline for this Article. Part II explores the kinds of CBDCs that are being developed in different countries by their respective central bank authorities. Part III of this Article details the Chinese initiative, the DC/EP. Part IV provides an outline of the debate over the U.S. digital dollar project through the patchwork of proposals and governmental action coming out of Washington D.C. Finally, Part V looks at the geopolitical implications of U.S. lethargy in developing its own CBDC project, potentially abdicating its global leadership in sovereign financial technology ("fintech") efforts to China.

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<sup>25</sup> Victoria Guida, *'Tyranny': Trump vows to block any Fed effort to launch digital currency*, POLITICO (Jan. 18, 2024, 11:16 AM), <https://www.politico.com/news/2024/01/18/trump-vows-to-block-any-fed-effort-to-launch-digital-currency-00136328>.

<sup>26</sup> Jeff Cox, *China leaps into a central digital bank currency, but similar progress eludes the U.S.*, CNBC, <https://www.cnbc.com/2021/04/06/china-leaps-into-central-bank-digital-currency-the-us-moves-slowly.html> (Apr. 6, 2021, 9:02 PM).

<sup>27</sup> Barclay Bram, *China's digital yuan is a warning to the world*, WIRED (Aug. 23, 2021, 1:00 PM), <https://www.wired.co.uk/article/digital-yuan-china-bitcoin-libra>.

<sup>28</sup> Theodore Benzmilller, *China's Progress Towards a Central Bank Digital Currency*, CSIS (Apr. 12, 2022), <https://www.csis.org/blogs/new-perspectives-asia/chinas-progress-towards-central-bank-digital-currency>.

<sup>29</sup> *Id.*

<sup>30</sup> Heng Wang, *China Meets Digital Currency: E-CNY and Its Implications for Businesses*, LAW GAZETTE (Nov. 2021), <https://lawgazette.com.sg/feature/china-meets-digital-currency-e-cny-and-its-implications-for-businesses/>.

<sup>31</sup> BENZMILLER, *supra* note 28.

<sup>32</sup> *Id.*

## II. WHAT IS A CENTRAL BANK DIGITAL CURRENCY?

A CBDC<sup>33</sup> is defined by the Bank of International Settlements<sup>34</sup> (“BIS”), the central bank of central banks, as “a digital form of central bank money that is different from balances in traditional reserve or settlement accounts.”<sup>35</sup> Patrick Schueffel has explained that:

[a] CBDC is managed by a central bank using a digital ledger. Hence, one single entity, the central bank, has control over the issuance and subsequent administration of this new type of currency. By contrast[,] physical cash is also issued by a central bank, yet the bookkeeping of the currency as well as its management is executed by numerous parties, respectively middlemen, such as banks, businesses, and consumers.<sup>36</sup>

The Atlantic Council offers this definition: “A CBDC is virtual money backed and issued by a central bank. As cryptocurrencies and stablecoins have become more popular, the world’s central banks have realized that they need to provide an alternative—or let the future of money pass them by.”<sup>37</sup>

A BIS study found four main motivating factors why countries have considered implementing a CBDC: “(i) interest in technological innovations for the financial sector; (ii) the emergence of new entrants into payment services and intermediation; (iii) declining use of cash in a few countries; and (iv) increasing attention to so-called private digital tokens.”<sup>38</sup> A CBDC can be broken down into two major target areas: wholesale CBDC and retail CBDC. Within wholesale CBDC, it can be further segmented into “national” and “cross border.”<sup>39</sup> A National CBDC, is used for domestic payments only.<sup>40</sup> It involves the country’s central bank, which functions directly with regulated intermediaries.<sup>41</sup> Examples are: Canada’s Project Jasper, Singapore’s Project UBIN, South Africa’s Project Khokha, and Thailand’s Project Inthanon.<sup>42</sup>

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<sup>33</sup> ConsenSys, *Everything You Need to Know About Central Bank Digital Currencies*, (Jan. 24, 2020), <https://consensys.io/blog/everything-you-need-to-know-about-central-bank-digital-currencies>. Matthieu Bouchard, Tom Lyons, Matthieu Saint Olive & Ken Timsit, *White Paper: Central Bank and the Future of Money* (2020), <https://pages.consensys.net/central-banks-and-the-future-of-digital-money>.

<sup>34</sup> Convention respecting the Bank of International Settlements, Jan. 20, 1930, 104 League of Nations Treaty Series (LNTS) 441, <https://www.bis.org/about/convention-en.pdf>.

<sup>35</sup> Committee on Payments and Market Infrastructures, *Central bank digital currencies*, BANK FOR INT’L SETTLEMENTS, 3-4 (Mar. 2018), <https://www.bis.org/cpmi/publ/d174.pdf> [hereinafter “Committee on Payments and Market Infrastructures”].

<sup>36</sup> SCHUEFFEL, *supra* note 13.

<sup>37</sup> ATLANTIC COUNCIL, *supra* note 6.

<sup>38</sup> COMMITTEE ON PAYMENTS AND MARKET INFRASTRUCTURES, *supra* note 35, at 3-4.

<sup>39</sup> *Central bank digital currencies for cross-border payments – Report to the G20*, WORLD BANK GROUP (July 2021) <https://www.bis.org/publ/othp38.pdf>.

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> Compendium Report, *Digital Currency Governance Consortium White Paper Series*, WORLD ECON. FORUM, 29 (Nov. 2021).



Douglas Arner and his co-authors have argued that central banks should focus on transforming their current payment systems instead of creating a new system, as the current models are likely to fail.<sup>43</sup>

Cross border CBDCs, on the other hand, are used for international transactions in which two countries directly connect their respective central banks for direct transactions. At the core of these CBDC infrastructures is the “operator node” which connects the two countries and “bank nodes” for each respective country.<sup>44</sup> Regulated intermediaries interact with a Central Bank, which then communicates with the operator node. The operator node is run jointly by both central banks and issues a “depository receipt” which is then used by the bank nodes of each respective bank. Examples of partnerships are: Hong Kong and Thailand (Project LionRock-Ithanon), Japan and ECB (Project Stella), and Saudi Arabia and the United Arab Emirates (Project Aber).<sup>45</sup>

A Retail CBDC is broken down into three different categories: Two-Tiered Issuance, Synthetic CBDC, and the Platform approach. The Two-Tiered Issuance means that the CBDC is issued to regulated intermediaries, who then distribute the CBDC to the public. Examples of this are: Sweden (E-krona 2020), China (DCEP), Bahamas (Sand Dollar), Eastern Caribbean (DXCD), Cambodia (Bakong), and Norway (E-krona). A Synthetic CBDC involves the central bank issuing CBDC to stablecoin issuers (non-bank fintechs, which is similar to narrow banking and does not involve lending), who then distributes to the public, and the central bank is 100% liable. Examples of this include the IMF (Synthetic CBDC), Ukraine (E-Hryvnia), and Uruguay (Billete Digital). The Platform Approach involves the central bank building a platform which is able to function with CBDC and allows private firms to interact and provide customer services. Examples are: United Kingdom (UK CBDC) and Sweden (E-Krona 2018).<sup>46</sup>

As cryptocurrencies continue to be developed and deployed around the world, there has been a shift for governments to implement a CBDC in either the retail or wholesale sector.<sup>47</sup> It was found in 2020 that 90% of US dollars are not physically held, and only 85% of currency exists as physical cash.<sup>48</sup> There have been three main “systematic catalysts” that forced the reform of the current banking system from a domestic and international standpoint: The introduction of Facebook’s Libra (later called Diem), the DC/EP from China, and the unexpected COVID-19 pandemic.<sup>49</sup> Even with Bitcoin’s 15-plus-year tenure and the thousands of cryptocurrencies in existence, their cumulative value remained miniscule in comparison to the

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<sup>43</sup> Douglas W. Arner, Ross P. Buckley, Dirk A. Zetsche, & Anton Didenko, *After Libra Digital Yuan and COVID-19: Central Bank Digital Currencies and the New World of Money and Payment Systems*, 1 EUR. BANK. INST., Paper No. 65, (2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3622311](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3622311) [hereinafter “ARNER, et al.”]

<sup>44</sup> Raphael Auer & Rainer Bohme, *The technology of retail central bank digital currency*, BIS (Mar. 2020), [https://www.bis.org/publ/qtrpdf/r\\_qt2003j.htm](https://www.bis.org/publ/qtrpdf/r_qt2003j.htm).

<sup>45</sup> *Id.*

<sup>46</sup> Dmitri Plakhov, *Most Common Types of CBDC*, Central Bank Digital Currencies Presentation (May 2020).

<sup>47</sup> Wulf A. Kaal, *Digital Asset Market Evolution*, J. OF CORP. L. 48, (May 20, 2020), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3606663](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3606663).

<sup>48</sup> *Id.* at 43.

<sup>49</sup> ARNER, et al., *supra* note 43, at 4. See also James Cooper, *With Central Bank Digital Currencies, States Are Reasserting Power Over Money*, YAHOO!FINANCE (Mar. 3, 2020), <https://finance.yahoo.com/news/even-cbdc-state-won-t-100000663.html>.

fiat currencies of the largest economies in the world.<sup>50</sup> Enter the People's Bank of China ("PBOC") to centralize decentralized network technology. The central bank of China is testing, deploying, and continuing to test its own DC/EP initiative.<sup>51</sup> According to the Atlantic Council, "China's pilot, which currently reaches 260 million people, is being tested in over 200 scenarios, some of which include public transit, stimulus payments and e-commerce."<sup>52</sup>

### III. CHINA IS THE BIGGEST CENTRAL BANK DIGITAL CURRENCY FIRST MOVER

China announced the launch of its DC/EP in October 2019.<sup>53</sup> It is designed to supersede current independent payment systems such as Alipay, with an estimated billion users, and WeChatPay, both of which operate as closed-loop systems.<sup>54</sup> Coordinated by the PBOC, the digital yuan creates an opportunity for China to prevent currencies such as the now-abandoned Libra from entering the marketplace and allow China to collect an exuberant amount of data regarding "the economy and market integrity."<sup>55</sup> Currently and in the immediate future of the Chinese CBDC project, the digital yuan will only be available domestically; however, China's international ambitions are likely to supersede other global currencies and be a stable force as a CBDC while other countries attempt to catch up.<sup>56</sup>

A working paper released in English by the PBOC in July 2021 confirmed the "domestic-focused and technologically-driven vision of the new currency's background and key objectives."<sup>57</sup> According to the report, "cryptocurrencies such as Bitcoin are claimed to be decentralized and entirely anonymous. However, given their lack of intrinsic value, acute price fluctuations, low trading efficiencies and huge energy consumption, they can hardly serve as currencies used in daily economic activities."<sup>58</sup>

As China continues to deploy its DC/EP and the commercial Blockchain-based Services Network across the vast country, these new technologies for finance are being road tested and leveraged.<sup>59</sup> And while China had banned cryptocurrencies in 2014 and then re-banned them

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<sup>50</sup> The value of *Bitcoin* as of June 5, 2020 was \$9,040.80, with the second highest Cryptocurrency, *Pax Gold*, valued at \$1,783.65, and third highest *Maker* at \$462.49. Only the top 7 were valued above \$100. A majority of the cryptocurrencies were valued at \$1 or below. *All Cryptocurrencies*, COINMARKETCAP, (Jun. 5, 2020) <https://coinmarketcap.com/all/views/all/>.

<sup>51</sup> Michael Sung, *China's National Blockchain Will Change the World*, COINDESK (Apr. 24, 2020), <https://www.coindesk.com/policy/2020/04/24/chinas-national-blockchain-will-change-the-world/>.

<sup>52</sup> ATLANTIC COUNCIL, *supra* note 6.

<sup>53</sup> ARNER, et al., *supra* note 43, at 4.

<sup>54</sup> *Id.* at 37.

<sup>55</sup> *Id.* at 38.

<sup>56</sup> *Id.* at 35.

<sup>57</sup> Marie Huillet, *China's central bank says crypto gave impetus to the creation of its CBDC*, COINTELEGRAPH (July 16, 2021), <https://cointelegraph.com/news/china-s-central-bank-says-crypto-gave-impetus-to-the-creation-of-its-cbdc>.

<sup>58</sup> Working Group on E-CNY Research and Development of the People's Bank of China, *Progress of Research and Development of E-CNY in China*, 2 (July 2021), <http://www.pbc.gov.cn/en/3688110/3688172/4157443/4293696/2021071614584691871.pdf>.

<sup>59</sup> BRAM, *supra* note 27; BENZMILLER, *supra* note 28.

several more times,<sup>60</sup> the country's authorities studied how they work.<sup>61</sup> Chinese leader Xi Jinping championed blockchain technology all the while embracing the economics for the leadership of the coming Internet 3.0 by making smart investments and incentivizing partnerships among academia, the financial sector, and technologists.<sup>62</sup> On May 28, 2018, President Xi said that the blockchain, together with artificial intelligence, quantum information, mobile communications, and the Internet are listed as a new generation of information technology.<sup>63</sup>

On October 24, 2019, the Political Bureau of the CCP Central Committee conducted the 18th collective study on the current status and trends of blockchain technology.<sup>64</sup> President Xi emphasized that the integrated application of blockchain technology plays an important role in new technological innovation and industrial transformation.<sup>65</sup> Blockchain is viewed by Chinese authorities as an important breakthrough for independent innovation of core technologies, and can accelerate the development of industrial innovation.<sup>66</sup> According to the Chinese central bank's disclosures, they added six pilot areas of Shanghai, Hainan, Changsha, Xi'an, Qingdao and Dalian to the digital yuan pilot project,<sup>67</sup> in addition to the previous pilot areas such as Shenzhen, Suzhou, Xiong'an, and Chengdu.<sup>68</sup>

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<sup>60</sup> CHINA BANKING REG. COMM'N, 关于防范代币发行融资风险的公告 [Notice on Preventing The Financing Risk of The Issuing of Tokens], (Apr. 9, 2017),

<https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=153233&itemId=925&generaltype=0>.

<sup>61</sup> Marco Quiroz-Guitierrez, *Crypto is fully banned in China and 8 other countries*, FORTUNE (Jan. 4, 2022), <https://fortune.com/2022/01/04/crypto-banned-china-other-countries/> (On May 18, 2021, the National Internet Finance Association of China (NIFA), the China Banking Association (CBA) and the Payment and Clearing Association of China (PCAC) jointly published a statement: "Announcement on Preventing the Risk of Speculation in Virtual Currency Transactions"); Wolfie Zhao, *Three Self-Regulatory Organizations Reiterate China's 2017 Stance on Crypto Amid Market Volatility*, THE BLOCK (May 18, 2021),

[https://www.theblockcrypto.com/linkedin/105190/china-self-regulatory-organizations-crypto?utm\\_source=coinbase&utm\\_medium=rss](https://www.theblockcrypto.com/linkedin/105190/china-self-regulatory-organizations-crypto?utm_source=coinbase&utm_medium=rss);

Li Nanhua & Gao Lei, *Three major associations announced! Prevent the risk of speculation in virtual currency transactions*, PEOPLE.CN (May 19, 2021), <http://finance.people.com.cn/n1/2021/0519/c1004-32107549.html>.

<sup>62</sup> Osamezu Emmanuel, *Xi Jinping: Blockchain Technology Championing the Tech Revolution*, ZYCRYPTO.COM (May 31, 2018), <https://zycrypto.com/xi-jinping-blockchain-technology-championing-the-tech-revolution/>; see also Arjun Kharpal, *With Xi's backing, China looks to become a world leader in blockchain as US policy is absent*, CNBC (Dec. 15, 2019), <https://www.cnbc.com/2019/12/16/china-looks-to-become-blockchain-world-leader-with-xi-jinping-backing.html>.

<sup>63</sup> YE CHENCHEN (叶蓁蓁), *WOGUO BIXŪ ZOU ZAI QŪ KUAI LIÀN FÁZHAN QIANLIE* [Our Country Must Be At The Forefront Of Blockchain Development], PEOPLE.CN (Oct. 26, 2019), <http://politics.people.com.cn/n1/2019/1026/c1001-31421642.html> (China).

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

<sup>66</sup> James Cooper, *Coronavirus Checks China's Blockchain Ambitions*, YAHOO!FINANCE., (Feb. 9, 2020), <https://finance.yahoo.com/news/coronavirus-checks-china-blockchain-ambitions-090027276.html>.

<sup>67</sup> Wu Yu (吴雨), 题：别误读了！目前数字人民币试点仍是“4+1” [Don't misread it! The existing digital RMB pilot is still "4 + 1"], XINHUA NET (Aug. 15, 2020), [http://www.xinhuanet.com/politics/2020-08/15/c\\_1126372237.htm](http://www.xinhuanet.com/politics/2020-08/15/c_1126372237.htm). (China).

<sup>68</sup> Pan Fuda (潘福达), 数字人民币试点“多地开花” [Digital RMB Pilot “Blooms In Many Places”], PEOPLE.CN (May 7, 2021), <http://finance.people.com.cn/n1/2021/0507/c1004-32096425.html> (China).

These different pilots experimented with different consumer uses. On May 1, 2021, the “Five-five Shopping Festival” red envelope event, sponsored by Suzhou and Shanghai, made the digital yuan consumption the main highlight of the event.<sup>69</sup> The event distributed digital yuan red envelopes through lotteries, with a total of 181,800 red envelopes. Each had an amount of 55 yuan, for a total amount of 9,999,000 yuan.<sup>70</sup> Shanghai Qingpu, Suzhou Wujiang, and Zhejiang Jiashan were selected as the three pilot cities to promote the DC/EP payment usage in business, hotels, tourist attractions, and public transportation.<sup>71</sup>

By January 2022, China soft-launched its digital yuan when the CBDC already boasted more than a hundred million users.<sup>72</sup> The digital yuan was finally unveiled for the 2022 Winter Olympic Games in Beijing to great fanfare,<sup>73</sup> with consumer experiences in multiple core business districts.<sup>74</sup> In 2022, the beta version of the digital yuan app was launched for iOS and Android in Chinese app stores.<sup>75</sup>

After some difficulties in 2022, DC/EP use has accelerated after three years of the pilot program.<sup>76</sup> Over 5.6 million merchants registered to use the digital yuan in 26 testing cities last year.<sup>77</sup> PBOC Governor Yi Gang stated that “total transactions had reached 950 million with a cumulative value of 1.8 trillion yuan (US\$249.9 billion) by the end of June, up from 100 billion yuan (US\$13.9 billion) the previous August.”<sup>78</sup>

Local and provincial governments have further expanded their utilization of the digital yuan. A province in East China, Jiangsu, incorporated the digital yuan into its salaries for civil servants and public institutions.<sup>79</sup> Suqian began its plan to make the digital yuan the primary settlement method for local public institutions by 2025 and to use digital yuan wallets for government budgets at all levels. One city, Changshu, has been paying transit subsidies for government employees in digital yuan since last October.<sup>80</sup> As of April 2023, “all government employees in Changshu city” receive their salaries in digital yuan.<sup>81</sup> This has now expanded to staff at public institutions and state-owned companies.<sup>82</sup>

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<sup>69</sup> Yang Jian, *Double Five Shopping Festival kicks off this week to boost local consumption*, SHINE (Apr. 29, 2021), <https://www.shine.cn/news/metro/2104298175/>.

<sup>70</sup> FUDA, *supra* note 68.

<sup>71</sup> *Id.*

<sup>72</sup> Catherine Thorbecke, *The US dollar could go digital. Here's what you need to know*, CNN Bus. (Mar. 11, 2022) <https://www.cnn.com/2022/03/11/tech/us-digital-dollar-cbdc/index.html>.

<sup>73</sup> Ashutosh Pandey, *China heats up digital currency race*, DW (Feb. 9, 2022), <https://www.dw.com/en/china-heats-up-digital-currency-race-with-e-cny-debut-at-olympics/a-60701261>.

<sup>74</sup> FUDA, *supra* note 68.

<sup>75</sup> Arendse Huld, *China Launches Digital Yuan App – All You Need to Know*, CHINA BRIEFING (Sept. 22, 2022), <https://www.china-briefing.com/news/china-launches-digital-yuan-app-what-you-need-to-know>.

<sup>76</sup> Mia Nulimaimaiti, *What's the state of China's digital yuan in 2023?*, S. CHINA MORN. POST (Oct. 10, 2023, 12:00 AM), <https://www.scmp.com/economy/china-economy/article/3237317/whats-state-chinas-digital-yuan-2023>.

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> Laura He, *China makes major push in its ambitious digital yuan project*, CNN Bus. (Apr. 24, 2023, 1:40 AM) <https://www.cnn.com/2023/04/24/economy/china-digital-yuan-government-salary-intl-hnk/index.html>.

<sup>81</sup> Thai-Binh Elston, *China is doubling down on its digital currency*, FOR. POLICY RESEARCH INST. (June 2, 2023), <https://www.fpri.org/article/2023/06/china-is-doubling-down-on-its-digital-currency/>.

<sup>82</sup> HE, *supra* note 80.

The digital yuan trial has expanded to fifteen provinces and twenty-three cities. Now, with the addition of Chongqing and Guangzhou, the top five largest cities in China use the digital yuan with a combined total population of 98 million people.<sup>83</sup> In addition, last year the PBOC counted digital yuan for the first time in its official measure of cash in circulation.<sup>84</sup> The next major focus by the PBOC is to support online commerce in rural areas and on improving user experience and testing security before launching.<sup>85</sup>

Given the nature of China's markets, governance, and its determination to gain a massive "first-mover" advantage in the CBDC race, "we can expect China to triple down on this effort going forward."<sup>86</sup> Chinese consumers are flexible when it comes to applying new payment methods, and the digital yuan wallet is expected to be similar to those already being widely used in China on non-bank payment platforms like Alipay or WeChat Pay.<sup>87</sup> Users can download digital yuan wallets to their smartphones where the digital currency can be stored.<sup>88</sup> There are other technological improvements underway.<sup>89</sup> The super SIM allows users' to connect their phones with their digital yuan wallets. With the SIM card, "even if the phone is switched off, a user can tap at a point of sale to make a payment using the SIM's NFC function."<sup>90</sup>

With the DC/EP, the PBOC authorities will enjoy an enhanced ability to surveil and control the flow of money between the citizens.<sup>91</sup> While enabling the government to track the money flow might be useful for clamping down on corruption, political critics or dissenters could more easily be denied access to the finance system if all money flows can be tracked. While the authorities in China have been working to make the DC/EP a robust sovereign-backed digital currency, the U.S. has not demonstrated the same urgency about rolling out its own CBDC.

#### IV. THE SLOW DEVELOPMENT OF A CENTRAL BANK DIGITAL CURRENCY IN THE UNITED STATES

The United States has been quite slow in acting on its various options concerning a CBDC.<sup>92</sup> The debate in the U.S. was sparked in the Summer of 2019 when Facebook (now

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<sup>83</sup> ELSTON, *supra* note 81.

<sup>84</sup> *Id.*

<sup>85</sup> Mike Orcutt, *What's next for China's digital currency?* TECH. REV. (Aug. 3, 2023),

<https://www.technologyreview.com/2023/08/03/1077181/whats-next-for-chinas-digital-currency/>.

<sup>86</sup> Andrew Singer, *China Turns Up Pace On CBDC Release, Tests Infrastructure Prior To Adoption*, COINTELEGRAPH (Jan. 16, 2021), <https://cointelegraph.com/news/china-turns-up-pace-on-cbdc-release-tests-infrastructure-prior-to-adoption>.

<sup>87</sup> Xinhua News Agency, *Digital yuan parades its strengths during trial*, BEIJING REV. (Dec. 29, 2020),

[http://www.bjreview.com/Business/202012/t20201229\\_800231205.html](http://www.bjreview.com/Business/202012/t20201229_800231205.html).

<sup>88</sup> *Id.*

<sup>89</sup> *China's SIM card wallet supports offline digital RMB payments*, LEDGER INSIGHTS (July 13, 2023),

<https://www.ledgerinsights.com/digital-rmb-yuan-cbdc-sim-card-wallet-offline-payments>.

<sup>90</sup> *Id.*

<sup>91</sup> XINHUA NEWS AGENCY, *supra* note 87.

<sup>92</sup> *Id.*

Meta) CEO Mark Zuckerberg and his lieutenant David Marcus were brought before lawmakers in Washington D.C. to defend their company's proposed Libra cryptocurrency project.<sup>93</sup> Zuckerberg threw China under the bus, telling a skeptical Congressional committee that the U.S. government had better allow Libra to go forward, lest Beijing and its state-owned enterprises and affiliates develop and deploy a cryptocurrency backed by a sovereign yuan and scaled at global proportions,<sup>94</sup> and take over the future of finance and innovation.<sup>95</sup> When Facebook announced its Libra project, it had 27 partners, including Uber and Mastercard, with the expectation that each partner would invest at least \$10 million.<sup>96</sup> Zuckerberg testified again in Autumn 2019 that:

while we debate these issues, the rest of the world isn't waiting. China is moving quickly to launch similar ideas in the coming months . . . Libra will be backed mostly by dollars, and I believe it will extend America's financial leadership as well as our democratic values and oversight around the world.<sup>97</sup>

It did not take long for institutions within the U.S. government to respond. Jerome Powell, Chairman of the Fed, gave testimony to congressional hearings regarding the concerns over Facebook's Libra, telling the U.S. House of Representatives' Financial Services Committee: "I just think it cannot go forward without there being broad satisfaction with the way the company has addressed money laundering' and other issues."<sup>98</sup> Only a week before, five top Democrats on the Financial Services Committee had written a letter to the social network's parent company calling on it to "immediately cease implementation plans' for Libra until lawmaker questions were answered."<sup>99</sup> Additionally in the hearing, Chairman Powell stated:

People have been talking about [the actual adoption of Bitcoin] since cryptocurrencies emerged, but we haven't seen it... That's not to say we won't—and if we do, then yes, you could see a return to an era in the United States where we had many different currencies, in the so-called national banking era.<sup>100</sup>

The banking era he was referring to is the period of U.S. history from the late nineteenth century to the early twentieth century, before the Fed was created in 1913.<sup>101</sup>

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<sup>93</sup> Dion Rabouin, *The U.S. Is Losing the Global Race to Decide the Future of Money—and It Could Doom the Almighty Dollar*, TIME (Sept. 21, 2021), <https://time.com/6099105/us-china-digital-currency-central-bank/>.

<sup>94</sup> *Examining Facebook's Proposed Digital Currency and Data Privacy Considerations Before the S. Comm. on Banking, Housing, and Urban Affairs*, 116th Cong. 1 (July 16, 2019) (Statement of Mark Zuckerberg, Facebook CEO), <https://www.banking.senate.gov/hearings/examining-facebooks-proposed-digital-currency-and-data-privacy-considerations> [hereinafter "Zuckerberg Statement"].

<sup>95</sup> RABOUIN, *supra* note 93.

<sup>96</sup> Nathaniel Popper, Mike Isaac & Jeanna Smialek, *Fed Chair Raises 'Serious Concerns' About Facebook's Cryptocurrency Project*, N.Y. TIMES (July 10, 2019), <https://www.nytimes.com/2019/07/10/technology/fed-chair-facebook-cryptocurrency-libra.html> [hereinafter "POPPER, et al."].

<sup>97</sup> ZUCKERBERG STATEMENT, *supra* note 94. See also Andrea Peterson, *The Winners and Losers in Libra's Murky Future*, PROTOCOL (Mar. 4, 2020), <https://www.protocol.com/facebook-libra-winners-losers>.

<sup>98</sup> POPPER, et al., *supra* note 96.

<sup>99</sup> *Id.*

<sup>100</sup> *Id.*

<sup>101</sup> Sisso Cao, *Here's What Fed Chairman Jerome Powell Thinks of Bitcoin in Today's Economy*, OBSERVER (July 12, 2019) <https://observer.com/2019/07/fed-chairman-jerome-powell-on-bitcoin-crypto-facebook-libra/>.

In early February 2020, during Chairman Powell's monetary policy report in front of the U.S. House Financial Services Committee, his view about a federally-backed CBDC had expanded slightly: "Every major central bank is currently taking a deep look at that [in response to his view on the "FedCoin"]," Powell said. "We feel that's our obligation, technology has now made that possible. I think it's very much incumbent on us and other central banks to understand the costs and benefits and tradeoffs associated with a possible digital currency."<sup>102</sup>

With the pandemic and the national rescue plans underway in March 2020, the U.S. government made some forays towards a CBDC when it considered creating digital wallets for stimulus payments to the 17 million unbanked households in the United States.<sup>103</sup> The U.S. Congress considered the use of a digital dollar in its varying versions of the stimulus package early in the COVID-19 pandemic.<sup>104</sup> An early House of Representatives bill for the Payment Protection Program provided for such a distribution,<sup>105</sup> to the delight of many advocates for a digital dollar, only to see the final legislation forgo such a revolutionary step.<sup>106</sup>

The U.S. Federal Reserve Bank studied the digital dollar's possible role in the economy, but technical and user adoption was stymied.<sup>107</sup> On June 30, 2020, the U.S. Senate Committee on Banking, Housing and Urban Affairs held a hearing on the digitization of money and payments providing a sense of the lethargy afflicting the U.S. government on the development of a stateside CBDC. These hurdles reflect the legacy of trust that the U.S. (paper) dollar provides.<sup>108</sup> There are fears that government-designed solutions may fail short of their intended mark when compared to proven open-source platforms deployed by an ecosystem of competing tech firms.<sup>109</sup>

The witnesses at the hearing included Chris Giancarlo (former Chairman of the U.S. Commodity Futures Trading Commission and founder of the "Digital Dollar Project"), Charles Cascarilla (CEO of Paxos) and, Nakita Cuttino (Visiting Assistant Professor of Law at Duke University).<sup>110</sup> The questions remained on-topic, in contrast to prior hearings regarding technology, such as that with Mark Zuckerberg.<sup>111</sup> Although digital systems are designed to provide convenience, it may be difficult to implement with almost one out of five Americans not owning a smartphone and a reported ten percent without "alternative internet access in their

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<sup>102</sup> Daniel Roberts, *Fed Chair Jay Powell grilled on China's cryptocurrency plans, US response*, YAHOO!FINANCE (Feb. 11, 2020) <https://finance.yahoo.com/news/fed-chair-jay-powell-grilled-on-chinas-cryptocurrency-plans-us-response-211840877.html>.

<sup>103</sup> *Id.*

<sup>104</sup> ARNER, et al., *supra* note 43, at 40.

<sup>105</sup> Nikhilesh De, *House Stimulus Bills Envision 'Digital Dollar' to Ease Coronavirus Recession*, YAHOO!FINANCE (Mar. 23, 2020), <https://finance.yahoo.com/news/house-stimulus-bills-envision-digital-210550233.html>.

<sup>106</sup> Michael McSweeney, *'Digital dollar' proposal stripped from latest Congressional coronavirus stimulus bill*, YAHOO!FINANCE (Mar. 24, 2020), <https://finance.yahoo.com/news/digital-dollar-proposal-stripped-latest-141213745.html>.

<sup>107</sup> DE, *supra* note 105.

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *The Digitization of Money and Payments Hearing Before the S. Comm. on Banking, Housing, and Urban Affs.*, The, 116th Cong. (2020), <https://www.banking.senate.gov/hearings/the-digitization-of-money-and-payments>.

<sup>111</sup> *Id.*

homes.”<sup>112</sup> Senator Tom Cotton (R-Ark.) reportedly stated that “[t]he U.S. needs a digital dollar... The U.S. dollar has to keep earning that place in the global payments system. It has to be better than bitcoin ... it has to be better than a digital yuan.”<sup>113</sup>

There is no doubt that a digital dollar can serve as a necessary transitional step, but it will be a new, unproven technology, with the highest of requirements to ensure the scalability, reliability, and ease of use.<sup>114</sup> The Cato Institute, however, sees it differently: “While CBDCs don’t offer any unique benefits to the American people, they do pose serious risks to financial privacy and economic freedom. From expanding financial surveillance to destabilizing the financial system, CBDCs could impose enormous costs on U.S. citizens.”<sup>115</sup>

In March 2021, Federal Reserve Chairman Powell maintained that the U.S. would only move towards issuing a digital dollar if there was widespread political and public support. Again in July 2021, Powell made the case that with a digital dollar, there would be no need for stablecoins.<sup>116</sup> The U.S. Department of Treasury has been studying how to best regulate stablecoins, releasing a report only a few months later.<sup>117</sup> In the interim, the U.S. has been flailing about trying to determine how to best regulate cryptocurrencies.<sup>118</sup>

In March 2022, President Biden stalled the development of digital assets in the United States through an executive order.<sup>119</sup> The executive order aims to protect U.S. consumers, investors, and businesses; protect the U.S. and global financial stability and mitigate systemic risk; mitigate the illicit finance and national security risks posed by the illicit use of digital assets; promote leadership in technology and economic competitiveness to reinforce U.S. leadership in the global financial system; promote equitable access to safe and affordable financial services; support technological advances and ensure responsible development and use

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<sup>112</sup> Nikhilesh De, *Witnesses Will Vouch for Stablecoins, Digital Dollars in US Senate Hearing Tuesday*, COINDESK (June 29, 2020), <https://www.coindesk.com/witnesses-will-vouch-for-stablecoins-digital-dollars-in-us-senate-hearing-tuesday>.

<sup>113</sup> *Id.*

<sup>114</sup> DE, *supra* note 105.

<sup>115</sup> ANTHONY & MICHEL, *supra* note 18.

<sup>116</sup> MacKenzie Sigalos, *Why the Fed Hates Cryptocurrencies and Especially Stablecoins*, CNBC (July 16, 2021), <https://www.cnbc.com/2021/07/16/jerome-powell-promotes-cbdc-digital-dollar-warns-against-stablecoins.html>.

<sup>117</sup> Dep’t of Treasury, *President’s Working Group on Financial Markets Releases Report and Recommendations on Stablecoins*, (Nov. 1, 2021), <https://home.treasury.gov/news/press-releases/jy0454>.

<sup>118</sup> Ephrat Livni & Eric Lipton, *Regulators Ask Congress to Create New Rules for Cryptocurrencies*, N.Y. TIMES (Nov. 1, 2021), [https://www.nytimes.com/2021/11/01/business/stablecoins-cryptocurrency-regulation.html?campaign\\_id=4&emc=edit\\_dk\\_20211102&instance\\_id=44371&nl=dealbook&regi\\_id=82079407&segment\\_id=73282&te=1&user\\_id=1e3dcb62e536e703c424599acd5a666b](https://www.nytimes.com/2021/11/01/business/stablecoins-cryptocurrency-regulation.html?campaign_id=4&emc=edit_dk_20211102&instance_id=44371&nl=dealbook&regi_id=82079407&segment_id=73282&te=1&user_id=1e3dcb62e536e703c424599acd5a666b).

<sup>119</sup> Statements and Releases, *FACT SHEET: President Biden to Sign Executive Order on Ensuring Responsible Development of Digital Assets*, WHITE HOUSE BRIEFING ROOM (Mar. 9, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/09/fact-sheet-president-biden-to-sign-executive-order-on-ensuring-responsible-innovation-in-digital-assets/> [hereinafter “Statements and Releases”]; Catherine Thorbecke, *The US dollar could go digital. Here’s what you need to know*, CNN BUS. (Mar. 11, 2022), <https://www.cnn.com/2022/03/11/tech/us-digital-dollar-cbdc/index.html>.



of digital assets; and explore a U.S. CBDC.<sup>120</sup> The order outlines how the U.S. will explore a CBDC. The U.S. will achieve this by,

placing urgency on research and development of a potential United States CBDC, should issuance be deemed in the national interest. The Order directs the U.S. Government to assess the technological infrastructure and capacity needs for a potential U.S. CBDC in a manner that protects Americans' interests. The Order also encourages the Federal Reserve to continue its research, development, and assessment efforts for a U.S. CBDC, including development of a plan for broader U.S. Government action in support of their work. This effort prioritizes U.S. participation in multi-country experimentation, and ensures U.S. leadership internationally to promote CBDC development that is consistent with U.S. priorities and democratic values.<sup>121</sup>

This move by President Biden followed the release of a report from the U.S. Federal Reserve detailing the pros and cons of such virtual money.<sup>122</sup> One of the most important findings of the Federal Reserve was that a U.S. CBDC would preserve the dollar's status.<sup>123</sup> The report found that a U.S. CBDC would best serve the needs of the United States by being privacy-protected, intermediated, widely transferable, and identity-verified.<sup>124</sup> Other benefits of a CBDC included safely meeting future needs and demands for payment services, improving cross-border payments, supporting the dollar's international role, providing financial inclusion, and extending public access to safe central bank money.<sup>125</sup> Although the Federal Reserve found many benefits, it also highlighted many risks. These risks include a fundamental change to the structure of the U.S. financial system; altering the roles and responsibilities of the private sector and the bank. CBDC would be attractive to risk-averse users, especially during times of stress in the financial system, which would create a liability to the CBDC. This liability could affect monetary policy implementation and interest rate control, risk privacy and data protection, and cybersecurity risks.<sup>126</sup> The U.S. Federal Reserve made many findings but ultimately found that the issue is better left to Congress.<sup>127</sup> As of June 2022, Fed Chairman Jerome Powell said the digital dollar could help safeguard its global dominance as other countries issue their own, a far different tone than previously taken by the Chair.<sup>128</sup>

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<sup>120</sup> STATEMENTS AND RELEASES, *supra* note 119; Ryan Browne, *Biden just put out an executive order on cryptocurrencies – here's everything that's in it*, CNBC (Mar. 9, 2022), <https://www-cnbc-com.cdn.ampproject.org/c/s/www.cnbc.com/amp/2022/03/09/heres-whats-in-bidens-executive-order-on-crypto.html>.

<sup>121</sup> STATEMENTS AND RELEASES, *supra* note 119.

<sup>122</sup> Bd. OF GOVERNORS OF THE FED. RSRV., *Money and Payments: The U.S. Dollar in the Age of Digital Transformation* 1 (Jan. 2022) [hereinafter "Money and Payments"].

<sup>123</sup> Will Canny, *Bank of America Says US CBDC Would Preserve Dollar's Status as World's Reserve Currency*, COINDESK, <https://www-coindesk-com.cdn.ampproject.org/c/s/www.coindesk.com/policy/2022/01/24/bank-of-america-says-us-cbdc-would-preserve-dollars-status-as-worlds-reserve-currency/?outputType=amp> (May 11, 2023, 4:50 PM).

<sup>124</sup> MONEY AND PAYMENTS, *supra* note 122, at 13.

<sup>125</sup> *Id.* at 14-16.

<sup>126</sup> *Id.* at 20.

<sup>127</sup> *Id.* at 3.

<sup>128</sup> Lindsay Dunsmuir, *Fed's Powell: a U.S. digital dollar could help maintain international primacy*, REUTERS (June 17, 2022, 5:48 AM), <https://www.reuters.com/markets/us/feds-powell-us-digital-dollar-could-help-maintain->

After this report, the debate about whether the federal government should implement a digital dollar has ramped up.<sup>129</sup> Some Republican lawmakers seem eager for the Fed to embrace innovative technology while others have expressed concern about the issue.<sup>130</sup> Additionally, Democrats are having the same debate, with many believing that it would boost financial inclusion, while others raising concerns about its use for illicit purposes.<sup>131</sup> Some lawmakers have even gone far enough to promote bills that would prohibit the Federal Reserve from issuing a central bank digital currency or CBDC directly to individuals.<sup>132</sup>

On September 16, 2022, President Biden signed an executive order which reflects the many opportunities and myriad of risks for the development of digital assets in the United States.<sup>133</sup>

A U.S. CBDC – a digital form of the U.S. dollar – has the potential to offer significant benefits. It could enable a payment system that is more efficient, provides a foundation for further technological innovation, facilitates faster cross-border transactions, and is environmentally sustainable. It could promote financial inclusion and equity by enabling access for a broad set of consumers. In addition, it could foster economic growth and stability, protect against cyber and operational risks, safeguard the privacy of sensitive data, and minimize risks of illicit financial transactions. A potential U.S. CBDC could also help preserve U.S. global financial leadership, and support the effectiveness of sanctions. But a CBDC could also have unintended consequences, including runs to CBDC in times of stress.<sup>134</sup>

And so, the United States is still hesitant to move forward with a sovereign-backed digital currency.<sup>135</sup> Michelle W. Bowman, a member of the Board of Governors of the Federal Reserve System wrote: “The potential benefits of a U.S. CBDC remain unclear, and the introduction of a U.S. CBDC could pose significant risks and tradeoffs for the financial system.”<sup>136</sup> Christopher J. Waller, a Federal Reserve Governor, stated at a Brookings Institution conference that “a CBDC is something you could do, but there’s nothing that makes you need it.”<sup>137</sup> It is no surprise that

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international-primacy-2022-06-

17/#:~:text=June%2017%20(Reuters)%20%2D%20The,bank%20that%20has%20left%20policymakers.

<sup>129</sup> Pete Schroeder, *Analysis: A digital dollar is years away as U.S. Fed kicks issue to Congress*, REUTERS (Jan. 24, 2022), <https://www.reuters.com/business/finance/digital-dollar-is-years-away-us-fed-kicks-issue-congress-2022-01-24/>.

<sup>130</sup> *Id.*

<sup>131</sup> *Id.*

<sup>132</sup> PIMENTEL, *supra* note 21.

<sup>133</sup> *FACT SHEET: White House Releases First-Ever Comprehensive Framework for Responsible Development of Digital Assets*, WHITE HOUSE BRIEFING ROOM (Sept. 16, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/09/16/fact-sheet-white-house-releases-first-ever-comprehensive-framework-for-responsible-development-of-digital-assets/>.

<sup>134</sup> *Id.*

<sup>135</sup> RABOUIN, *supra* note 93.

<sup>136</sup> Michelle W. Bowman, *Responsible Innovation in Money and Payments*, FED. RES. SYSTEM, (Oct. 17, 2023), <https://www.federalreserve.gov/newsevents/speech/bowman20231017a.htm>.

<sup>137</sup> Christopher J. Waller, *Fed’s Waller remains unconvinced of need for CBDC*, ABA BANKING J. (Oct. 6, 2023), <https://bankingjournal.aba.com/2023/10/feds-waller-unconvinced-of-need-for-cbdc/>. See Brookings Institution,

the Fed states that it “is considering how a CBDC might fit into the U.S. money and payments land-scape.”<sup>138</sup> The U.S. central bank authorities are still skittish to commit to anything beyond study and public hearings. There have been plenty of both. That may be the reason why the U.S. was ranked number 18 in retail CBDC development in the first edition of the 2021 PwC CBDC Global Index.<sup>139</sup>

## V. WHAT THIS MEANS FOR GEOPOLITICS AND THE FUTURE OF THE UNITED STATES DOLLAR AS THE GLOBAL RESERVE CURRENCY

If we understand the development and deployment of a CBDC in the context of the overall decoupling (of Chinese and U.S. economies) that is going on internationally, there should be some pause for concern about Chinese efforts. The great decoupling that is now working its way along the global supply chain will not just reduce efficiencies across the globe, but create two spheres of activity going forward:<sup>140</sup> the Western-led trajectory and the Chinese-led trajectory.<sup>141</sup>

It is no secret that there is a geopolitical competition for dominance in strategic industries that is underway between the United States and China.<sup>142</sup> On May 8, 2015, the State Council of the People’s Republic of China launched the “Made in China 2025” initiative, aiming to transform China from a world factory of quantity to one of quality.<sup>143</sup> Chinese authorities have

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*Making America’s payment system work for a digital century*, YOUTUBE.COM (Oct. 6, 2023), <https://www.youtube.com/watch?v=ayMivdZWTDc>.

<sup>138</sup> Federal Reserve System Board of Governors, *Research & Analysis: Money and Payments: The U.S. Dollar in the Age of Digital Transformation*, FED. RSRV. (Jan. 2022), <https://www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf>.

<sup>139</sup> PWC, CBDC GLOBAL INDEX (1<sup>st</sup> ed.), 38 (Apr. 2021), <https://www.pwc.com/gx/en/industries/financial-services/assets/pwc-cbdc-global-index-1st-edition-april-2021.pdf>.

<sup>140</sup> Allen J. Morrison, *The Strategic Challenges of Decoupling*, HARV. BUS. REV. (May–June 2021), <https://hbr.org/2021/05/the-strategic-challenges-of-decoupling>.

<sup>141</sup> James Cooper, *That Decoupling Sound: China, the US and a Year of CBDCs*, COINDESK (Dec. 28, 2020), <https://www.coindesk.com/decoupling-sound-china-cbdc>. See also FP Contributors, *The Real Consequences of U.S.-China Decoupling*, FOR. POLICY (July 23, 2023), <https://foreignpolicy.com/2023/07/23/us-china-decoupling-trade-war-washington-beijing-economic-war/>.

<sup>142</sup> “President Biden and many members of Congress rightly view the United States and other democratic, market-based countries as being locked in competition with China and other authoritarian, state-led nations over whose values and norms will prevail in an increasingly diverse world.” Joanna Shelton, *The CPTPP and Intellectual Property Rights Protection*, CTR. FOR STRATEGIC & INT’L STUDIES. (June 28, 2021), <https://www.csis.org/analysis/cptpp-and-intellectual-property-rights-protection>.

<sup>143</sup>

To achieve the strategic goal of a manufacturing power, we must adhere to the problem-oriented, overall planning, and highlight the key points; we must build the consensus of the whole society, accelerate the transformation and upgrading of the manufacturing industry, and comprehensively improve the quality of development and core competitiveness.

国务院关于印发《中国制造2025》的通知 [Notice of the State Council on Printing and Distributing “Made in China 2025”], GOV.CN (May 8, 2015), [http://www.gov.cn/zhengce/content/2015-05/19/content\\_9784.htm](http://www.gov.cn/zhengce/content/2015-05/19/content_9784.htm).

used state-owned enterprises<sup>144</sup> to place bets on national winners which can directly compete with big Western technology companies in many other future strategic industries like autonomous vehicles, blockchain, and robotics.<sup>145</sup> At a State Council Executive Meeting, Premier Li Keqiang emphasized that “[w]e must give full play to the role of innovation in spurring entrepreneurship and employment, and speed up the transformation of innovation into real productivity.”<sup>146</sup> As part of the Made in China 2025 initiative,<sup>147</sup> many Chinese companies have expanded their investments in research and development in advanced technology spaces.<sup>148</sup>

If we add to the competition between the two superpowers the battle of central bank digital currencies, then Chinese efforts are sure to disrupt the hegemony in the global financial system that the United States has enjoyed since the end of the Second World War. China will eventually go beyond its national borders and make the digital yuan part of its international financial architecture.<sup>149</sup> By attaching the DC/EP’s cross-border payments system to its multitude of partners in its ambitious Belt and Road Initiative<sup>150</sup> (“BRI,” also known as the “One Belt One Road Initiative”), there may be even more disruption to the global financial system.<sup>151</sup> According to various legal and economic scholars, the BRI “is a developmental strategy promoted by the [PRC] to foster mercantile connectivity and cooperation among countries.”<sup>152</sup>

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<sup>144</sup> Mark McLaughlin, *State-Owned Enterprises and Threats to National Security Under Investment Treaties*, 19:2 CHINESE J. OF INT’L L. 283-327 (June 2020), <https://doi.org/10.1093/chinesejil/jmaa014>.

<sup>145</sup> Scott Kennedy, *Made in China 2025*, CTR. FOR STRATEGIC & INT’L STUD. (June 1, 2015), <https://www.csis.org/analysis/made-china-2025>.

<sup>146</sup> Xu Wei, *China to further reform to drive innovation*, STATE COUNCIL, THE PEOPLE’S REPUBLIC OF CHINA (Aug. 30, 2017, 8:25 PM), [http://english.gov.cn/premier/news/2017/08/30/content\\_281475826050062.htm](http://english.gov.cn/premier/news/2017/08/30/content_281475826050062.htm).

<sup>147</sup> State Council, *Made in China 2025* [中国制造2025], IoTONE (July 7, 2015),

<http://www.cittadellascienza.it/cina/wp-content/uploads/2017/02/IoT-ONE-Made-in-China-2025.pdf>.

<sup>148</sup> See KAI-FU LEE, *AI SUPER-POWERS: CHINA, SILICON VALLEY AND THE NEW WORLD ORDER* (2018)

China’s alternative digital universe now creates and captures oceans of new data about the real world. That wealth of information on users – their location every second of the day, how they commute, what foods they like, when and where they buy their groceries and beer – will prove invaluable in the era of AI implementation. It gives these companies a detailed treasure trove of there [sic] users’ daily habits, one that can be combined with deep-learning algorithms to offer tailor-made services ranging from financial auditing to city planning. It also vastly outstrips what Silicon Valley’s leading companies can decipher from your search, “likes” or occasional online purchase. This unparalleled trove of real-world data will give Chinese companies a major leg up in developing AI-driven services.

*Id.* at 17; See also PETER FRANKOPAN, *THE NEW SILK ROADS: THE PRESENT AND FUTURE OF THE WORLD* (2019) (“The government in Beijing is pouring money and resources into artificial intelligence, building new technology parks across the country...”); *Id.* at 200.

<sup>149</sup> The Belt and Road Initiative “aims to promote the connectivity of Asian, European and African continents and their adjacent seas” by comprising land-based and maritime-based trade connections. “Yidai yilu” xingdong jihua (“一帶一路”行動計劃) [Action Plan on the Belt and Road Initiative], Zhengfu Wangluo (政府网) [Gov.CN] (Mar. 30, 2015, 7:31 PM), [http://english.gov.cn/archive/publications/2015/03/30/content\\_281475080249035.htm](http://english.gov.cn/archive/publications/2015/03/30/content_281475080249035.htm).

<sup>150</sup> Gong Jian “Yidai Yilu” De Yuanjing Yu Xingdong (共建“一帶一路”的願景與行動) [Vision and Actions on Jointly Building Belt and Road], Zhongguo Wang (中國網) [CHINA.ORG.CN] (Mar. 28, 2015), [http://www.china.org.cn/china/Off\\_the\\_Wire/2015-03/28/content\\_35182638.htm](http://www.china.org.cn/china/Off_the_Wire/2015-03/28/content_35182638.htm).

<sup>151</sup> Duncan Friedmann, *The Belt and Road Initiative and the Overcapacity Connection*, in *THE BELT AND ROAD INITIATIVE AND GLOBAL GOVERNANCE* 120 (Maria Adele Carrai et al., eds., 2020).

<sup>152</sup> Maria Adele Carrai et al., *The Belt and Road Initiative and Global Governance: By Way of Introduction*, in *THE BELT AND ROAD INITIATIVE AND GLOBAL GOVERNANCE* 1, 2 (Maria Adele Carrai et al. eds., 2020).

There are pundits who support the U.S. creating a digital dollar including former Commodities and Futures Trading Commission, J. Christopher Giancarlo<sup>153</sup> and Nobel Laureate Paul Krugman.<sup>154</sup> The proponents believe that a digital dollar will only strengthen the U.S. economy, make it more efficient, and provide more liquidity and accessibility for all including the current 17 million unbanked households. Some banks, including the Bank of America, believe that concerns over the U.S. dollar losing its reserve currency status are overblown.<sup>155</sup>

There are members of the U.S. Congress who are also crypto proponents and champions. Representative Stephen Lynch (D-Mass) introduced the ECASH Act, which called on the U.S. Treasury Department to create and pilot a digital currency.<sup>156</sup> On June 22, 2022, Congressman Jim Himes (D-CT) released a proposal<sup>157</sup> for the Fed to issue a CBDC. In his white paper, Representative Himes maintained that the implementation of digital currency by the U.S. government could play a critical role in preserving the role of the U.S. dollar as the global reserve currency.<sup>158</sup> Not to be outdone, the Federal Reserve Bank of New York, with a number of behemoth financial institutions, launched a 12-week pilot program to test a digital dollar to study a sped-up payment system.<sup>159</sup>

Despite these early forays, there are still many voices that are signaling caution or downright hostility toward a digital dollar. Governor Ron DeSantis has even proposed signing a Florida law that bans the use of any CBDCs in his state.<sup>160</sup> That is the level of resistance to a digital dollar. On the other side of the spectrum is China. The Chinese are all in on implementing its CBDC.<sup>161</sup>

As the Chinese continue to move ahead with their DC/EP project and become an increasingly cashless society,<sup>162</sup> the U.S. should think long and hard about future proofing the U.S. dollar and maintaining American leadership in financial innovation, while convincing the skeptics that a digital dollar is a good idea. In Washington D.C., no one is quite sure.

<sup>153</sup> See generally [www.digitaldollarproject.org](http://www.digitaldollarproject.org), 2023 (last visited on Jan. 19, 2023).

<sup>154</sup> KRUGMAN, *supra* note 20.

<sup>155</sup> CANNY, *supra* note 123.

<sup>156</sup> ECASH Act, 117<sup>th</sup> Congress, H.R. 7231 (2021-2022), <https://www.congress.gov/bill/117th-congress/house-bill/7231>; See Milton Ezrati, *A Digital Dollar?*, FORBES (May 5, 2023), <https://www.forbes.com/sites/miltonezrati/2023/05/05/a-digital-dollar/?sh=5ac7118f787e>.

<sup>157</sup> Jim Himes, *Winning the Future of Money: A Proposal for a U.S. Central Bank Digital Currency* (2022), <https://himes.house.gov/losing-the-future-of-money-a-proposal-for-a-u-s-central-bank-digital-currency>, (last visited Jan. 19, 2024).

<sup>158</sup> Press Release, *Himes Proposed Central Bank Digital Currency*, (June 22, 2022), <https://himes.house.gov/2022/6/himes-proposes-central-bank-digital-currency#:~:text=In%20January%20of%202022%2C%20the%20Federal%20Reserve%20issued,in%20the%20form%20of%20a%20specific%20authorizing%20law>.

<sup>159</sup> Lananh Nguyen, *Banking giants and New York Fed start 12-week digital dollar pilot*, REUTERS (Nov. 15, 2022), <https://www.reuters.com/markets/currencies/banking-giants-new-york-fed-start-12-week-digital-dollar-pilot-2022-11-15/>.

<sup>160</sup> Brandon Girod, *Florida Ron DeSantis wants to ban CBDCs in Florida: Here's What You Need to Know*, PENSACOLA NEWS J. (Mar. 21, 2023), <https://www.pnj.com/story/news/politics/2023/03/21/cbdc-in-florida-desantis-wants-to-ban-central-bank-digital-currency/70033379007/>.

<sup>161</sup> RABOUIN, *supra* note 93.

<sup>162</sup> Dimitar Lilkov, *China's Digital Currency: Mao Would be Proud*, WILFRIED MARTENS CTR. FOR EUROPEAN STUDIES, 14 (Jan. 14, 2021), <https://www.martenscentre.eu/blog/chinas-digital-currency-mao-would-be-proud/>.

## VI. CONCLUSION

Countries, at varying levels of development, are considering their options for CBDCs.<sup>163</sup> This innovation ensures that traditional central banking institutions will continue to play a critical role in the lives of the citizens of their respective countries. It is no secret that the primary role that the state has maintained over centuries has been whittled away through the outsourcing of inherently governmental activities like education, healthcare, telecommunications, waste management, and defense.<sup>164</sup> This “hollowing out” process<sup>165</sup> is being reversed, in part, through the development and deployment of CBDCs, undoing years of deregulation, privatization, decentralization, and the overall disaggregation of the sovereign state.

CBDCs are a technological innovation that could change the global financial architecture. As Time magazine put it: “Leadership in this space will have implications for more than just payments: geopolitical ambitions, economic growth, financial inclusion and the very nature of money could all be dictated by who leads the charge and how.”<sup>166</sup> One thing is for sure—China has a huge lead in the development and deployment of its central bank digital currency.

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<sup>163</sup> Bank of Canada, *Contingency Planning for a Central Bank Digital Currency*, BANK OF CANADA (Background materials, Feb. 25, 2020), <https://www.bankofcanada.ca/2020/02/contingency-planning-central-bank-digital-currency>.

<sup>164</sup> See generally PAUL VERKUIL, *OUTSOURCING SOVEREIGNTY: WHY PRIVATIZATION OF GOVERNMENT FUNCTIONS THREATENS DEMOCRACY AND WHAT WE CAN DO ABOUT IT* (2007).

<sup>165</sup> Bob Jessop, *Hollowing Out the ‘Nation-state’ and Multi-level Governance*, 11, 26 (June 28, 2013); see also A HANDBOOK OF COMPARATIVE SOCIAL POLICY (Patricia Kennett eds.) (2d ed. 2013).

<sup>166</sup> RABOUIN, *supra* note 93.