

# United States Congress U.S.-China Economic and Security Review Commission

## Hearing

on

An Assessment of the CCP's Economic Ambitions, Plans, and Metrics of Success Panel IV: China's Pursuit of Leadership in Digital Currency

April 15, 2021 Virtual via Cisco WebEx

Statement of Yaya J. Fanusie
Adjunct Senior Fellow
Center for a New American Security
Chief Strategist
Cryptocurrency AML Strategies

Vice Chairman Cleveland, Commissioner Wessel, and distinguished members and staff of the U.S.-China Economic and Security Review Commission, it is an honor to participate in today's hearing. Please allow me to add that although I do consulting with the private sector on financial technology issues, my comments today are from my personal opinion and are not on behalf of any clients.

Digital Currency/Electronic Payment (DCEP), the People's Bank of China's state-based digital currency project is just one component of China's long-term strategy to develop a fully digital economy and lead the world toward a future driven by harnessing intelligent, dynamic data systems. In the short run, the digital renminbi is likely to only have a marginal impact on the global economy and I assess that it is unlikely to displace the dollar as the top international reserve currency or undermine the power of U.S. sanctions in the next few years. However, in the long run, DCEP and China's strategic approach to financial technology (fintech) is laying a technological foundation that could give China great economic advantage over the United States in the decades ahead.

In my statement, I will touch on China's broader fintech strategy as a way to contextualize DCEP, explain what makes this digital currency unique as a fintech phenomenon, suggest how DCEP may fit into China's blockchain technology efforts, and discuss what possible future scenarios could threaten the U.S.' status as global financial leader. I will end with some recommendations on how U.S. policymakers and private sector stakeholders should respond.



### **Digital Currency Is about Innovating with Data**

China's digital currency is as much about data as it is about money. China's five-year plan, released in late 2020, lists cloud computing, big data, and internet of things as the top three focus areas for its digital economy. The plan mentions data over 60 times. In fact, the U.S. national security implications of China's Digital Currency/Electronic Payment, or DCEP, hinge mostly on how this new system gives the Chinese government wider pools of data to collect, analyze, and exploit for China's economic and political benefit.

Zhou Xiaochuan, the previous governor of the People's Bank of China (PBOC) commented in 2019 that the financial industry is mostly an "information industry." Zhou noted that most of the money transactions financial institutions handle involve computerized processes. He explained that monetary policymaking, such as interest rate setting, relies on data analysis. And Zhou perhaps only half-jokingly described the trading floor of the Shanghai Stock Exchange as a museum piece rather than a necessity for actual securities transactions.

Consider how money moves in the world today. Economies function through the interaction amongst businesses, between consumers and those businesses, and with the central bank's provision of fiat currency and the government's regulatory oversight. Banking intermediaries are the basis for most of this activity. And all that facilitation runs on financial technology. This fintech comprises both hardware and software, and increasingly relies on the rails of the internet for people to interact with their financial accounts. This is true in China and around the world. As the internet has become more important to our daily living, our economic lives have become more driven by data, its capture, and its analysis. So, today, any institution seeking to improve performance is focused on harnessing and leveraging data, whether by analyzing it in aggregate or drilling down to understand the minute needs of a single customer or constituent. Most institutions want to use data to make their operations faster, more effective, and in some cases, more "intelligent." As financial activity operates increasingly through digital means, with physical cash interactions declining, fintech is a more important variable in the national equation for economic productivity and competition.

\_

<sup>1 (</sup>Authorized Release) Proposal of the Central Committee of the Chinese Communist Party on Drawing Up the 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2030, Center for Security and Emerging Technology, December 1, 2020 (Revised December 7, 2020), <a href="https://cset.georgetown.edu/wp-content/uploads/t0237">https://cset.georgetown.edu/wp-content/uploads/t0237</a> 5th Plenum Proposal EN-1.pdf

<sup>&</sup>lt;sup>2</sup> I will use the term "DCEP" to refer to the People's Bank of China's overall system for processing and managing its state-created digital currency and "digital renminbi" to refer to the digital banknote held by end users.

<sup>&</sup>lt;sup>3</sup> "Zhou Xiaochuan. 'Zhongguo Jinrong' | Zhou Xiaochuan: cinxi keji yu jinrong zhengce de xianghu zuoyong [Zhou Xiaochuan, "China Finance|Zhou Xiaochuan: "Interaction of Information Technology and Financial Policy"]," Wechat public platform, China Finance, July 31, 2019, <a href="https://mp.weixin.qq.com/s/sNbUbT7Lv2T3PolBncxZsg">https://mp.weixin.qq.com/s/sNbUbT7Lv2T3PolBncxZsg</a>.



The Chinese Communist Party (CCP) understands this. That is why the CCP unveiled a three-year Fintech Development Plan in August 2019.<sup>4</sup> The document is a high-level directive calling on China's financial industry to incorporate new technology as a way to drive financial growth.<sup>5</sup> But it also seeks to strengthen the state's role in shepherding that innovation and growth. One excerpt calls for "a reversal of the situation where key core technologies and products are controlled by others." Those "others," I believe, refer to China's private financial firms, such as Tencent and Alipay, which manage most of China's digital payment infrastructure. The plan also calls for expanding capabilities to leverage financial big data mining and analysis and to "promote the construction of a national integration data center." The plan envisions innovation that connects government services with financial data and cloud computing to enable more internet-based financial architecture. It is quite telling that in the three-year fintech plan, "currency" is mentioned only twice. Similar to the recent five-year plan, "data" is mentioned 60 times, although the fintech document is much shorter. The word "money" is not mentioned at all.

The PBOC's deployment of a new, digital version of the renminbi must be understood as a measure within the CCP's overall push to manage more financial data. To understand how it fits in that strategy, one must first know how DCEP is distinct from China's current forms of digital payments.

## Digital Renminbi Brings the Central Bank into Mobile Payments

It is helpful to think about the digital renminbi as a new variation on how Chinese financial institutions digitally hold and transfer the rights to Chinese currency on behalf of their customers. In conventional digital payments, the financial institutions, whether they are banks or mobile payment companies, settle transactions between themselves as they facilitate customer transfers. The key thing to understand is that, from a bank's point of view, the funds in your bank account are really the bank's liability (or obligation) to pay you. For example, when a customer, Alice, logs into her account at Bank A, she sees her account has 100 renminbi (RMB). This means that Bank A has an obligation to pay Alice 100 RMB. When Alice goes online to send money to Bob's business, who has an account at Bank B, she transmits the simple data of instruction to send Bob 100 RMB from Alice's account. This data of instruction is transmitted from Alice's bank to Bob's

<sup>&</sup>lt;sup>4</sup> "Zhongguo Renming Yinhang Guanyu Yinfa 'Jinrong Keji (Fintech) Fazhan Guihua (2010-2021)' de tongzhi [The People's Bank of China Releases 'Fintech Development Plan 2019-2021']," Financial News, September 6, 2019, <a href="https://www.financialnews.com.cn/ig/zc/201909/t20190906">https://www.financialnews.com.cn/ig/zc/201909/t20190906</a> 167509.html.

<sup>&</sup>lt;sup>5</sup> "Chinese Central Bank Releases Fintech Development Plan for 2019-2021," China Banking News, August 23, 2019, https://www.chinabankingnews.com/2019/08/23/chinese-central-bank-releases-fintech-development-plan-for-2019-2021/.

<sup>&</sup>lt;sup>6</sup> "The People's Bank of China Releases 'Fintech Development Plan 2019-2021'," p. 13.

<sup>&</sup>lt;sup>7</sup> Aaron Klein, China's Digital Payments Revolution, Brookings Institution, April 2020, <a href="https://www.brookings.edu/research/chinas-digital-payments-revolution/">https://www.brookings.edu/research/chinas-digital-payments-revolution/</a>.

<sup>&</sup>lt;sup>8</sup> "The People's Bank of China Releases 'Fintech Development Plan 2019-2021'," p. 13.



bank. However, what gets transmitted over the internet is not 100 RMB, but rather the instruction between banks to transfer Bank A's liability of 100 RMB to Alice to Bank B, where it will be Bank B's new liability to Bob. But there is a separate process on the back end to handle the financial arrangement between banks, such as transferring assets to fund the liability Bank B is now receiving from Bank A. The asset transaction and the liability transaction are two different banking activities.

From the little we know about DCEP's technical infrastructure, it appears the digital renminbi will operate differently. In the DCEP system, the digital renminbi is created by the PBOC and provided to financial institutions who will disburse it through software wallets to users who have accounts at those institutions. Financial institutions will transfer a different type of liability on behalf of their customers. The digital renminbi is a liability with the central bank. Instead of Bank A transferring a liability it has with Alice, Bank A would transfer the liability the PBOC has with Alice. Technically, the PBOC liability was an asset for Bank A. In the transfer, Bank B would receive this new asset, but it would be designated as the PBOC's liability to Bob. There would be no need for a separate asset transaction to settle the digital instruction to transfer bank liabilities.

## The Chinese Government Will Leverage User Data

This new model makes PBOC infrastructure central to digital payments. It makes a central bank product—the digital renminbi—relevant to commercial banking instead of the settlement process between financial firms. The banks and mobile payment companies still would facilitate transactions, but the central bank, and thus, the CCP, will be able to track and analyze data associated with the transfer of its liabilities and the financial firms' assets. This aligns with the 2019 Fintech Development Plan's directive to wrest control of critical financial infrastructure from private entities. The DCEP model puts greater financial data under the control of the Chinese government.

This type of transmission is advantageous to the Chinese government and its authoritarianism in many ways. With DCEP, the PBOC would be kept aware of each digital renminbi in circulation. In the conventional system, the banks and the payment companies are aware of the transactions of their customers, but no single entity has a full view of all digital transactions nation-wide. The PBOC appears aware of international scrutiny over its potential to undermine the privacy of its users by its data capture. Just a few weeks ago, the director of the bank's Digital Currency Research Institute publicly said that the central bank would not have direct access to the identities of its users. 9 He expressed that only financial institutions and telecommunications firms would know

<sup>&</sup>lt;sup>9</sup> "Mu Changchun: Guanyu shuzi renminbi de 'kekong niming' de sikao [Mu Changchun: Some Thoughts on Digital Currency's "Controllable Anonymity]," Wechat Public Forum, April 1, 2021, <a href="https://mp.weixin.qq.com/s/L34OBXhANqxWDhRdZUeDoA">https://mp.weixin.qq.com/s/L34OBXhANqxWDhRdZUeDoA</a>.



the identities of DCEP wallet holders and that the government could only retrieve such information in cases of suspected criminal activity. This seems to be a recent change in policy because early designs of DCEP showed the opposite.

The previous director of the institute presented at a 2018 United Nations–sponsored technology conference, illustrating the PBOC's concept of "controllable anonymity." In his slide presentation, a graphic depicted the central bank with full access to all digital currency data, including the identity of users. <sup>10</sup> Though the PBOC now claims that personal information will be anonymized from the central bank, it may be relatively easy for it to unveil massive amounts of identities over time. The government plans to monitor all data and whenever it does learn the identities of wallet holders suspected of crime, it would then be able to track those wallets in perpetuity. Also, authorities could compel private companies to hand over identification information of future counterparties to those wallets, even though those parties may be merchants and other users unrelated to illicit activity. This process would enable the Chinese government to integrate more and more personal information with its ongoing big data analysis.

In the January 2021 CNAS report I coauthored with Emily Jin, we discussed in great detail how the PBOC's new capability to collect and analyze user financial data will likely strengthen the CCP's hand at disciplining party members and censoring public dissent. I won't expound upon those details here, but it is clear that in the short term, DCEP's biggest impact will be on China's domestic environment. Let me turn here to what I believe are the long-run implications, including what it means for U.S. financial power.

#### **Beijing Likely to Flex Greater Economic Coercion with DCEP**

Much U.S. attention is on the possible threat that DCEP will enable China to buffer against U.S. sanctions or create a viable alternative to the U.S. dollar in global trade. These are important risks to consider, but they are very remote possibilities, dependent on a multitude of external factors unrelated to the technological success of China's digital currency. Much greater geopolitical and economic shifts would be needed to dislodge U.S. influence in global banking. I suggest that a more important consideration is how DCEP enhances China's ability to conduct financial coercion against its adversaries. A small glimpse of this risk occurred last month.

<sup>&</sup>lt;sup>10</sup> Yao Qian, "Technical Aspects of CBDC in a Two-Tiered System," (slide presentation at the United Nations International Telecommunication Union Workshop on Standardizing Digital Fiat Currency and Its Applications, New York City, July 18–19, 2018), <a href="https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20180718/Documents/Yao%20Qian.pdf">https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20180718/Documents/Yao%20Qian.pdf</a>.

<sup>&</sup>lt;sup>11</sup> Yaya J. Fanusie and Emily Jin, China's Digital Currency: Adding Financial Data to Digital Authoritarianism, Center for a New American Security, January 26, 2021. <a href="https://www.cnas.org/publications/reports/chinas-digital-currency">https://www.cnas.org/publications/reports/chinas-digital-currency</a>.



In late March 2021, the biggest Chinese e-commerce platforms removed all clothing items from Swedish apparel firm H&M. This occurred days after a group connected to the CCP posted a September 2020 H&M press statement announcing the company would no longer use cotton from the Xinjiang Uyghur Autonomous Region. Also in response, Chinese GPS mapping applications removed H&M store locations from their user interfaces. Chinese GPS mapping applications applications are invalid destination, making the locations unsearchable. This was a clear form of economic retaliation against the clothing manufacturer, most likely instigated by the Chinese Communist Party.

A fully launched DCEP system would enable the CCP to deploy similar economic retaliations more effectively. If the Chinese government requires all foreign merchants operating in the country to accept the digital renminbi as a matter of course, the PBOC could probably prohibit DCEP funds to any merchant with a proverbial flip of a switch. While H&M was the main victim in this recent retaliation, it would not be unthinkable in the future for the CCP to prohibit a range of foreign firms from transactions, perhaps by country or by sector. It might also be possible to place volume limits on DCEP transactions to firms as a way to throttle sanctions against them. Such fine-tuned economic statecraft is not possible under conventional banking infrastructure where the CCP does not have centralized access to digital payment instruments.

The PBOC describes the digital currency project as a "backup system" for China's digital payments infrastructure. But for an authoritarian government, the potential of this system is too powerful to remain as just a backup. Nationally leveraging financial data in this way fits with the CCP's fintech development priorities.

While Chinese officials have publicly lamented U.S. influence in global banking and the dollar's preeminence, <sup>18</sup> I assess that China's broad fintech strategy is not to replace the U.S. position in today's global financial system, but to lead the creation of a new international economic

<sup>&</sup>lt;sup>12</sup> Ben Westcott and Laura He, "H&M and Nike are Facing a Boycott in China over Xinjiang Cotton Statements," CNN Business, March 26, 2021. https://www.cnn.com/2021/03/25/business/hm-nike-xinjiang-cotton-boycott-intl-hnk/index.html.

<sup>&</sup>lt;sup>13</sup> "H&M Group Statement on Due Diligence," H&M Group, <a href="https://hmgroup.com/sustainability/fair-and-equal/human-rights/h-m-group-statement-on-due-diligence/">https://hmgroup.com/sustainability/fair-and-equal/human-rights/h-m-group-statement-on-due-diligence/</a>.

<sup>&</sup>lt;sup>14</sup> Celia Chen and Iris Deng, "Meituan, Didi, Baidu, and China's Big Tech Erase H&M's Online Presence Amid Xinjiang Cotton Controversy," South China Morning Post, March 26, 2021, <a href="https://www.scmp.com/abacus/tech/article/3127117/meituan-didi-baidu-and-chinas-big-tech-erase-hms-online-presence-amid">https://www.scmp.com/abacus/tech/article/3127117/meituan-didi-baidu-and-chinas-big-tech-erase-hms-online-presence-amid</a>.

<sup>&</sup>lt;sup>15</sup> Eva Xiao, "H&M is Erased from Chinese E-Commerce Over Xinjiang Stance," The Wall Street Journal, March 25, 2021, https://www.wsj.com/articles/h-m-is-erased-from-chinese-e-commerce-over-xinjiang-stance-11616695377.

<sup>&</sup>lt;sup>16</sup> Josh Horwitz, "H&M Vanishes from Chinese-Ride Hailing App Didi after Xinjiang Backlash," Reuters, March 26, 2021, <a href="https://www.reuters.com/article/us-china-xinjiang-h-m/hm-vanishes-from-chinese-ride-hailing-app-didi-after-xinjiang-backlash-idUSKBN2BI1L3">https://www.reuters.com/article/us-china-xinjiang-h-m/hm-vanishes-from-chinese-ride-hailing-app-didi-after-xinjiang-backlash-idUSKBN2BI1L3</a>.

<sup>&</sup>lt;sup>17</sup> Amanda Lee, "China Digital Currency to 'Provide Backup' for Alipay, Tencent's Wechat Pay if 'Something Happens' to Internet Giants," South China Morning Post, March 26, 2021. <a href="https://www.scmp.com/economy/china-economy/article/3127136/china-digital-currency-provide-backup-alipay-tencents-wechat">https://www.scmp.com/economy/china-economy/article/3127136/china-digital-currency-provide-backup-alipay-tencents-wechat</a>.

<sup>&</sup>lt;sup>18</sup> Jamil Anderlini, "China Calls for New Reserve Currency," Financial Times, March 23, 2009, <a href="https://www.ft.com/content/7851925a-17a2-11de-8c9d-0000779fd2ac">https://www.ft.com/content/7851925a-17a2-11de-8c9d-0000779fd2ac</a>.



infrastructure. This strategy goes beyond the digital renminbi. It manifests itself in China's push for blockchain technology.

#### DCEP to Eventually Overlap with China's Blockchain Efforts

Last year, China launched the Blockchain-based Service Network (BSN), an effort to build an international cloud computing network that can support distributed ledger technology applications. <sup>19</sup> Chinese state-owned tech firms are spearheading this national project, overseen by the CCP's macroeconomic planning agency. The BSN's organizers describe the network as a more dynamic internet, based on blockchain infrastructure. <sup>20</sup> It is not a separate internet per se, but a system built on top of the internet through data centers that China owns around the globe. BSN is not directly related to the PBOC or DCEP, but like the digital currency project, it supports a long-term plan to leverage new data architecture for financial growth.

Although the BSN's technological goal involves complex computer science, the gist is simple: to lead the next phase of the internet. At the Hong Kong Fintech Week event in November 2020, BSN executive director He Yifan summed up the vision during a panel session. He explained that the current internet operates with linear transmission, where data moves from one singular point to another. Bitcoin's blockchain technology in 2008 enabled "broadcast transmission," where information relays across various nodes simultaneously, allowing for consensus around data authentication. The BSN is an attempt to lay the infrastructure for new internet applications that would operate on data shared from various parties and systems in real time. Executive Director He said, "We believe that after 20 to 30 years, all information systems will basically adopt blockchain-based transmission technology." This means that the BSN is a generational project.

The Chinese government aims for the BSN to give China strategic global leverage. The BSN is building infrastructure through 131 data centers located on every continent except Antarctica.<sup>24</sup> To promote the network's internationalization, BSN has partnered with several blockchain projects from outside China—including with U.S. and British firms<sup>25</sup>—to build on top of BSN

<sup>&</sup>lt;sup>19</sup> Yaya J. Fanusie, "Don't Sleep on China's New Blockchain Internet," Lawfare, November 10, 2020. <a href="https://www.lawfareblog.com/dont-sleep-chinas-new-blockchain-internet">https://www.lawfareblog.com/dont-sleep-chinas-new-blockchain-internet</a>.

<sup>&</sup>lt;sup>20</sup> "BSN Introduction - BSN User Manual," Blockchain-based Service Network.

 $<sup>\</sup>underline{https://web.archive.org/web/20201106152904/https://bsnbase.io/static/tmpFile/bzsc/1bsnintroduction/1-1.html.}$ 

<sup>&</sup>lt;sup>21</sup> See 1 hour 39 minute mark, "How Blockchain Technology and BSN Support Fintech Development," *Youtube*, November 4, 2020, https://www.youtube.com/watch?v=k9Gtq-j 3U.

<sup>&</sup>lt;sup>22</sup> Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," bitcoin.org, October 31, 2008, https://bitcoin.org/bitcoin.pdf.

<sup>&</sup>lt;sup>23</sup> See 1 hour 41 minute mark, "How Blockchain Technology and BSN Support Fintech Development."

<sup>&</sup>lt;sup>24</sup> See 16 minute mark, "How Blockchain Technology and BSN Support Fintech Development."

<sup>&</sup>lt;sup>25</sup> ConsenSys, Press Release: ConsenSys Announces Partnership with China's Blockchain Services Network, January 25, 2021, <a href="https://consensys.net/blog/press-release/consensys-announces-partnership-with-chinas-blockchain-services-network/">https://consensys.net/blog/press-release/consensys-announces-partnership-with-chinas-blockchain-services-network/</a>; EY, "EY announces extension of blockchain solution deployment in China on Ethereum and Financial Blockchain Shenzhen Consortium Blockchain Open Source platform in cooperation with Blockchain Service Network," EY.com, February 5, 2021, <a href="https://www.ey.com/en\_gl/news/2021/02/ey-">https://www.ey.com/en\_gl/news/2021/02/ey-</a>



infrastructure and develop interoperability with multiple blockchain platforms. <sup>26</sup> But China will still own the network. At the 2020 Hong Kong Fintech Week event, BSN secretary general Tan Min, who also is an executive with state-owned China Mobile, expressed that BSN would build an internet where China has "independent intellectual property rights and China controls the rights to internet access."

The digital renminbi is likely to be the fuel that powers BSN's future digital economy. Although BSN promotional materials do not discuss China's state digital currency, the project would appear to eventually require it. For example, Secretary General Tan described the BSN's potential impact on water utility payments. She explained that the current "linear transmission" process for Chinese citizens to pay their water bills involves several different business systems and financial firms, each only accessing its own siloed data, enabling potential fraud and disruption from any weak links in the process. By contrast, Tan argued that blockchain's encrypted "broadcast transmission" mode would allow all parties to have access to authenticated data, streamlining the process and keeping it more secure. By law, BSN will not support independent cryptocurrencies like Bitcoin within China, so it is logical to conclude that the payment instrument for such transactions will be the digital renminbi.

#### U.S. Must Prepare for Hard Choices Ahead

Whether the DCEP system eventually disrupts SWIFT or conventional correspondent banking will depend on how much other nations and their companies engage the system as a means of doing business with China. There are likely to be great commercial risks here. It is not clear if foreign individuals and companies using the DCEP system will have their private data anonymized as the PBOC claims will occur generally for users. As the H&M incident shows, China may find strategic national importance in knowing which wallets belong to non-Chinese users. Foreign firms transacting in DCEP might end up handing over to the Chinese government lots of real-time data that it could not access efficiently through conventional banking technology. It is quite plausible that the PBOC will know exactly how much money a foreign company holds in its digital renminbi wallets, as well as firms' daily, monthly, and annual spending patterns. The Chinese government would be able to identify companies' expenditure anomalies, their transaction counterparties, and how a foreign firm's activities compare to their Chinese rivals. The Chinese government would

announces-extension-of-blockchain-solution-deployment-in-china-on-ethereum-and-financial-blockchain-shenzhen-consortium-blockchain-open-source-platform-in-cooperation-with-blockchain-service-network.

<sup>&</sup>lt;sup>26</sup> Anna Baydakova, "Inside China's Effort to Create a Blockchain It Can Control," CoinDesk, March 16, 2021, <a href="https://www.coindesk.com/chinato-create-it-can-control">https://www.coindesk.com/chinato-create-it-can-control</a>.

 $<sup>^{\</sup>rm 27}\,{\rm See}$  24 minute mark, "How Blockchain Technology and BSN Support Fintech Development."

<sup>&</sup>lt;sup>28</sup> BSN, "BSN Information Package," Medium.com, November 25, 2020, https://medium.com/bsnbase/bsn-information-package-b631be479e4.

<sup>&</sup>lt;sup>29</sup> See 9 minute mark, "How Blockchain Technology and BSN Support Fintech Development."

<sup>&</sup>lt;sup>30</sup> David Pan, China's BSN to 'Localize' 24 Public Blockchains by Making Them Permissioned, CoinDesk, September 16, 2020, https://www.coindesk.com/bsn-localized-chains.



gain great strategic insights from this data and could bestow competitive advantages to the Chinese private sector.

The Chinese government has not announced whether it will mandate foreign firms to use DCEP. But if it launches DCEP as a universal "backup system" for all digital payments in China, it is unlikely to give foreign firms much of a choice. Before the CCP gives U.S. firms an ultimatum of the DCEP way or the highway, the private sector and American policymakers should take a step back to consider the trade-offs of participating in China's digital currency ecosystem. The U.S. must develop an approach to engagement with China that best harmonizes America's long-term economic interests with our long-held values.

The U.S. response to the challenges from DCEP and China's broader fintech push must stress one particular: Taking a decades-long view. China's fintech innovation is simply laying a technical foundation for its future economy and is not well-positioned to displace U.S. financial power in the next few years. U.S. policymakers need to prioritize the advancement of U.S. fintech infrastructure, rather than just fintech applications. As a parallel concern, the U.S. must mount a strategy to shape fintech's evolution globally. I recommend the following measures for the U.S. to address these needs:

Warn the U.S. and international business community about the commercial risks to foreign companies using DCEP. The U.S. Department of State, the U.S. Department of Commerce, and the U.S. Department of the Treasury should amplify the following points: China's economic retaliation against H&M shows that any foreign company that acknowledges concerns about human rights issues in the country could end up in the Chinese Communist Party's crosshairs and quickly lose access to the Chinese market. Using digital renminbi increases this risk because DCEP may be more vulnerable to CCP intervention than traditional payment systems.

And even if foreign companies stay clear of China's hot-button political issues, using DCEP is likely to enhance the Chinese government's ability to collect firms' transaction data and monitor their business activities. The PBOC's assurances that it will only acquire user information for suspected criminal or terrorist activity should not be taken at face value. The CCP's fintech development plans call for a national data integration center. Even if DCEP's big data is anonymized, it would be quite easy for the Chinese government to de-anonymize some of the transactional data through the regulatory process and identify the wallets belonging to specific firms. Monitoring of foreign firms' transactions is likely to give the Chinese government insights that put foreign companies at a competitive disadvantage.



**Elevate financial technology (fintech) as a critical emerging technology area requiring vigilance in U.S. advancement and standard setting.** The legislative efforts to spur U.S. research and performance in technologies like 5G, AI, and robotics are important.<sup>31</sup> Fintech must be emphasized as part of those efforts. Various nations are exploring central bank digital currencies (CBDCs) and if digital currency research lags in the United States, it will be easier for China to advance its model of digital authoritarianism for the rest of the world.

In order to address the privacy challenges that CBDCs raise, U.S. researchers should prioritize breakthroughs on techniques that will guard against illicit finance, but also protect user privacy and prevent the government from unwarranted surveillance on users. U.S. policymakers should also develop an inter-agency working group to study these privacy challenges and propose appropriate technical architecture and regulatory policy that would protect 4th amendment rights if the U.S. decides to build a digital fiat currency.

Decline the Chinese Communist Party's invitation to help build its new internet. When the Secretary General of China's Blockchain-based Service Network (BSN) described the project as international digital infrastructure where "China controls the right to internet access," it revealed the CCP's geopolitical motivations for its blockchain efforts. Although BSN is currently separate from DCEP, it is only logical that the digital renminbi will become a preferred payment instrument in BSN applications. Blockchain developers in countries with democratic systems should realize that if they help build the BSN, they are constructing the Chinese Communist Party's new internet ecosystem.

This dynamic is not new. Some of today's U.S. blockchain entrepreneurs are following the precedent their Silicon Valley predecessors set in providing the cyber infrastructure of the 'Great Firewall of China' two decades ago. <sup>32</sup> But while that early 2000s' technology transfer empowered CCP's domestic control, the BSN aims to strengthen the Chinese government's global influence. Answering the BSN's call for international partners may be a great market opportunity for blockchain developers, but it will go to building a world vulnerable to the particular sensibilities of the CCP. Those who want to build a better, freer internet environment should realize that China's aspirations for the global digital economy run counter to this goal.

Thank you for your time and for allowing me to speak on this important topic today. I look forward to your questions.

<sup>&</sup>lt;sup>31</sup> Maggie Miller, "Senators introduce bill creating technology partnerships to compete with China," thehill.com, March 4, 2021, <a href="https://thehill.com/policy/cybersecurity/541726-senators-introduce-bill-creating-technology-partnerships-to-compete-with?rl=1">https://thehill.com/policy/cybersecurity/541726-senators-introduce-bill-creating-technology-partnerships-to-compete-with?rl=1</a>.

<sup>&</sup>lt;sup>32</sup> Tina Rosenberg, "Building the Great Firewall of China, With Foreign Help," The New York Times, September 18, 2005, https://www.nytimes.com/2005/09/18/opinion/building-the-great-firewall-of-china-with-foreign-help.html.