

Dollar Trap and Digital Currency

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The dollar's status as the world's reserve currency, cemented after World War II, has been called into question over the years. American stewardship of the dollar, as both a currency of the United States and an international reserve currency, has been a source of global resentment, from allies as well as rivals. Fractures within the international monetary system, many of which arise intrinsically from the dollar's unique status, have been compounded by the manner the United States has used the dollar: one, to solve financial disturbances such as those emerging from the 2008 housing crisis, and two, to punish certain countries like Iran and Russia by cutting them off from access to dollars and access to the dollar-based international financial system. This Article examines how, against this backdrop, China's establishment of a central bank digital bank currency, the digital yuan, is designed to serve both the Chinese government's aim to consolidate Party control domestically as well as to engage in dedollarization or yuan internationalization, as a way to bypass American weaponization of the dollar.

INTRODUCTION	504
I. DOLLAR HEGEMONY AND "EXORBITANT PRIVILEGE"	513
A. The Dollar and the International Economic System	513
B. Weaponizing the Dollar-based System.....	522
II. DIGITAL CURRENCY	533
A. China and the Digital Yuan.....	534
B. Digital Yuan's Dollar Challenge.....	549
CONCLUSION	553

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INTRODUCTION

The history of money is a long and windy one. Our current system is on the cusp of a major paradigm shift driven by the establishment of private as well as sovereign digital money, with China in the forefront of the creation of the latter. More than a thousand years ago, when money was essentially coins, particularly gold and silver, China, under the Tang Dynasty (618 to 907 A.D.), invented bank notes or paper money, referred to as “flying cash” because it could blow away, unlike metal money.¹ Now, in a groundbreaking move, “the Chinese government is minting cash digitally, in a re-imagination of money that could shake a pillar of American power.”² China has rolled out its digital currency as part of a pilot program in fifteen of its twenty three provinces³ while the United States is still studying the issue.⁴

Although it might appear that money is already cashless and virtual, because credit cards and apps such as Apple Pay in the United States and WeChat in China have diminished reliance on bills and coins, cashless payment systems are simply systems of moving money electronically. A system of cashless payment is but “[t]he digitization of currency, which stems from the advent of electronic payment/clearance and mature interbank IT systems, allow[ing] commercial banks to more efficiently and independently generate the credit flows that expand broad money supply, or M2.”⁵

¹ James Kyngé & Sun Yu, *Virtual Control: The Agenda Behind China's New Digital Currency*, FIN. TIMES (Feb. 16, 2021), <http://www.ft.com/content/7511809e-827e-4526-81ad-ae83f405f623>.

² James T. Areddy, *China Creates Its Own Digital Currency, a First for Major Economy*, WALL ST. J. (Apr. 5, 2021, 10:48 AM), <http://www.wsj.com/articles/china-creates-its-own-digital-currency-a-first-for-major-economy-11617634118>. [<http://perma.cc/UVX8-5QXD>].

³ Lucas Mearian, *As China Pushes Its Digital Currency Plans, the US Falls Behind*, COMPUTERWORLD (Dec. 21, 2022, 3:00 AM), <http://www.computerworld.com/article/3683968/as-china-pushes-its-digital-currency-plans-the-us-falls-behind.html> [<http://perma.cc/8448-9B3T>].

⁴ Christopher Mims, *Central-Bank Digital Currencies Are Coming—Whether Countries Are Ready or Not*, WALL ST. J. (Jan. 16, 2023, 10:00 AM), <http://www.wsj.com/articles/digital-currencies-banking-system-11673625716>.

⁵ Dovey Wan, *Digital Renminbi: A Fiat Coin to Make MO Great Again*, COINDESK (May 17, 2019, 1:00 AM), <http://www.coindesk.com/markets/2019/05/17/digital-renminbi-a-fiat-coin-to-make-m0-great-again/> [<http://perma.cc/RZ5A-SWWS>]. Economists use M0, M1, M2, M3 as the four main measures of a country's money supply with each category reflecting the ease with which it can be exchanged for cash. The four measures are nested which means that M3 includes M1 and M2; M2 includes M0 and M1. Mike Finnegan, *Money Supply*, ECON FOCUS, First Quarter 2019, at 6, http://www.richmondfed.org/publications/research/econ_focus/2019/q1/jargon_alert.

The smallest and most liquid measure, M0, is strictly currency in circulation and money being kept by banks in reserves; hence, M0 is often referred to as the

Digital money spearheaded by China is in a different category altogether because in its current project, called Digital Currency/Electronic Payment (“DCEP”),⁶ “China is turning legal tender itself into a computer code.”⁷ In the old days, “central banks directly control base money creation/destruction but have only indirect power over the broader, credit flow-driven monetary supply. Now, with digital fiat currency, they have the potential to bypass commercial banks and regain control of currency creation/supply end to end, thereby structurally centralizing their power in policymaking.”⁸

Since 2014, China has been at work to create and establish a Central Bank Digital Currency (“CBDC”), prompted by its own concerns about challenges potentially posed by Facebook’s own private digital currency, the Libra.⁹ As the Libra was to be backed by a basket of currencies which was to include the U.S. dollar but not the yuan, China was concerned about how the Libra would affect its own currency domestically as well as internationally.¹⁰ Wang Xin, director of the Research Bureau of the People’s Bank of China (“PBOC”), raised this alarm:

If the digital currency is closely associated with the U.S. dollar, it could create a scenario under which sovereign currencies would coexist with U.S. dollar-centric digital currencies. There would be in essence one boss, that is the U.S. dollar and the United States. If so, it would bring a series of economic, financial and even international policy consequences.¹¹

‘monetary base.’ M1 is defined as all of M0 plus the remaining demand deposits not in reserves as well as traveler’s checks; it is often referred to as ‘narrow money.’ M2 is everything included in M1 plus savings accounts, time deposits (under \$100,000), and retail money market funds. M3 is everything in M2 plus larger time deposits and institutional money market funds.

Id.

⁶ See YAYA J. FANUSIE & EMILY JIN, CHINA’S DIGITAL CURRENCY: ADDING FINANCIAL DATA TO DIGITAL AUTHORITARIANISM 1 (2021).

⁷ Areddy, *supra* note 2. The difference between digital fiat currency and other cryptocurrencies is that “CBDCs [Central Bank Digital Currencies], like traditional cash, are backed by a central bank’s authority, which is why they’re called central bank digital currencies.” Mearian, *supra* note 3. Note, however, that this does not mean that the digital yuan itself will be based on blockchain. See *infra* notes 229–230 and accompanying text.

⁸ Wan, *supra* note 5, at 6.

⁹ See Miranda Wood, *How China’s Central Bank Digital Currency Will Help Renminbi To Challenge Dollar*, LEDGER INSIGHTS (Oct. 18, 2019) [hereinafter Wood, *China’s Central Bank*], <http://www.ledgerinsights.com/china-central-bank-digital-currency-cbdc-renminbi-dollar/> [<http://perma.cc/M6DY-65VX>]. The Libra, later renamed Diem, is unlikely to come to fruition due to concerns from regulators and lawmakers. Clare Duffy, *Facebook’s Dream of Creating Its Own Global Cryptocurrency Officially Comes to An End*, CNN BUS. (Feb. 1, 2022, 4:01 PM), <http://www.cnn.com/2022/02/01/tech/facebook-diem-association-dissolving/index.html> [<http://perma.cc/JR99-4LCH>].

¹⁰ Wood, *China’s Central Bank*, *supra* note 9.

¹¹ *Id.*

There are two edges to China's CBDC sword—domestic and international. Although it might seem on the surface like the CBDC is “just” for domestic use and, as this Article will demonstrate, for domestic control, a digital yuan is also purposefully designed to reshape the dollar-dominant international order. China's CBDC is meant to “simplify cross border transactions. For a long time, [China] has been dissatisfied with the U.S. dollar's (USD) ongoing role as the global reserve currency and is committed to extending its currency's reach.”¹²

The prospect of China reconstituting the international monetary system has created consternation on the international front. Jeremy Fleming, chief of the Government Communications Headquarters, Britain's security and intelligence organization, warned that China's advances in technology, such as its centralized digital currency, will be used to repress citizens at home and “rewrite international standards,” allowing it to evade international sanctions of the type used against Russia, as an example.¹³ U.S. officials have launched war game exercises that incorporate the potential threat of a digital yuan—also referred to as the e-CNY or the digital renminbi (“RMB”). In one of the scenarios held by the Harvard Kennedy School and Belfer Center for Science and International Affairs in Cambridge, Massachusetts, former high-ranking U.S. officials dealt with nightmare scenarios in which the CBDC undermined the dollar while North Korea used the digital yuan to build nuclear missiles and bypass U.S. sanctions.¹⁴ The Biden administration, “troubled by the long-term effects a digital yuan may have on the dollar's

¹² *Id.*

¹³ See Dan De Luce, *U.K. Spy Chief Warns China's Use of Technology Threatens Global Security*, NBC NEWS (Oct. 10, 2022, 2:00 PM), <http://www.nbcnews.com/politics/national-security/uk-spy-chief-warns-chinas-use-technology-threatens-global-security-rcna51548> [<http://perma.cc/NJD9-ZD4R>]; *Fear Driving China's Tech Manipulation Poses Threat to All—UK Spy Chief*, REUTERS (Oct. 11, 2022, 3:22 AM), <http://www.reuters.com/world/china/fear-driving-chinas-tech-manipulation-poses-threat-all-uk-spy-chief-2022-10-10/> [<http://perma.cc/7EBZ-NKKE>].

¹⁴ Nikhilesh De, *In Wargaming Exercise, A Digital Yuan Neuters US Sanctions and North Korea Buys Nukes*, COINDESK (Nov. 20, 2019, 11:35 AM), <http://www.coindesk.com/policy/2019/11/20/in-wargaming-exercise-a-digital-yuan-neuters-us-sanctions-and-north-korea-buys-nukes/> [<http://perma.cc/KK8Z-DPZX>]. Participants included former U.S. Defense Secretary Ash Carter; former Commodity Futures Trading Commission Chairman Gary Gensler; former Under Secretary of State for Political Affairs Nicholas Burns; former Deputy Assistant Secretary of the Treasury Jennifer Fowler; former special assistant and Deputy National Security Advisor Meghan O'Sullivan; former Secretary of Defense Chief of Staff Eric Rosenbach; former Treasury Secretary Lawrence Summers; former Ambassador to India Richard Verma; MIT's Digital Currency Initiative director Narula; and Belfer Center executive director Aditi Kumar. *Id.*

status as the world's reserve currency,"¹⁵ is coordinating actions among multiple government departments to better understand the operation and implications of the digital yuan.

This Article makes three primary points. First, digital currency issued by central banks ("CBDC") is likely to disrupt the fundamentals of the international monetary system the way Amazon disrupted conventional retailing and Airbnb disrupted the hotel industry. CBDC, like the digital yuan to be issued by the Central Bank of China ("CBOC"), is transforming our very understanding of money itself and is completely different from private digital currencies, or cryptocurrencies such as Bitcoin, because the latter exists outside the global financial system and is not officially considered legal tender.¹⁶ Second, China's digital yuan is likely to pose a significant challenge to the current dollar-dominated monetary order.¹⁷ It is through this hegemonic order, after all, that the United States has been able to use the dollar to sanction countries it disfavors and, in the process, disrupt the financial systems—even of its allies who object to American unilateral use of dollar sanctions. The fact that "an authoritarian state and U.S. rival has taken the lead to introduce a national digital currency is propelling what was once a wonky topic for cryptocurrency theorists into a point of anxiety in Washington."¹⁸ And third, the digital yuan serves not only China's external objective of international digitalization, but also its internal objective of "digital authoritarianism."¹⁹

In other words, China's issuance of a digital yuan serves both its international goal of a greater role for the yuan in its quest to challenge the dollar-dominated order and its domestic goal of greater state control over private money.²⁰ For China, the digital yuan is more than a medium of exchange. It is also a block against

¹⁵ Sebastian Sinclair, *Biden Administration Concerned over Long-Term Effects of Digital Yuan: Report*, COINDESK (Sept. 14, 2021, 5:38 PM), <http://www.coindesk.com/markets/2021/04/12/biden-administration-concerned-over-long-term-effects-of-digital-yuan-report/> [<http://perma.cc/B4R8-VNNW>].

¹⁶ See Areddy, *supra* note 2.

¹⁷ David Marcus, head of Calibra, Facebook's blockchain division, believed that China's digital yuan project is not rooted purely in domestic concerns: "I think their goal is not domestic. It's really broad and it has the objective of rewiring the financial networks of a lot of countries with digital assets that they control. I think you'll see a lot of projects that will have a more disruptive mindset." Miranda Wood, *David Marcus, Mark Carney, Infosys Founder Discuss Stablecoins at IMF*, LEDGERINSIGHTS (Oct. 16, 2019), <http://www.ledgerinsights.com/marcus-carney-discuss-stablecoins-imf/> [<http://perma.cc/M4AD-ZSMP>].

¹⁸ Areddy, *supra* note 2.

¹⁹ See FANUSIE & JIN, *supra* note 6, at 1–2.

²⁰ *Id.*

foreign domination, both in the form of dollar dominance and dollar weaponization by the U.S. government, as well as “a bulwark against the potential encroachment of foreign digital currencies.”²¹ Among governments, China has taken the lead in establishing its own digital currency as a counter to the private cryptocurrencies trespassing into the traditional domain of sovereigns. Indeed, the year 2022 was the year users in twenty-three pilot cities in China could freely download the digital yuan app for IOS and Android from Chinese app stores, allowing them to pay for goods and services with the digital yuan.²² WeChat, with more than 1.2 billion users, has also announced it would allow its users to select the digital yuan as a payment option, and Alibaba as well plans to incorporate the digital yuan into its ecosystem.²³ Despite the appearance of harmony and coexistence between the private versus state’s payment system, for the Chinese government, the establishment of the digital yuan is not a technocratic or technological project. It is rather a quest for domestic control, both to reign in the increasingly powerful private fintech²⁴ industry and to institute “mass surveillance over the Chinese population.”²⁵ In a report issued by the Centre for a New American Security, a think tank based in Washington, D.C.,²⁶ Yaya Fanusie and Emily Jin wrote, “[t]he digital renminbi is likely to be a boon for [Chinese Communist Party] surveillance in the economy and for government interference in the lives of Chinese citizens.”²⁷

Part I of this Article examines the reasons behind mounting dissatisfaction with the dollar-based regime. The dollar is not just the currency of the United States; it is also an international currency. As John Connally, the Treasury Secretary during the Nixon Administration said, “the dollar is our currency, but it’s

²¹ See Kyng & Yu, *supra* note 1. Mu Changchun, head of the central bank’s Digital Currency Research Institute, argued in 2020 that a digital yuan would be needed to counter Facebook’s proposed Libra and keep it from “encroaching on China’s monetary system.” See *id.* Also a director at the PBOC, he stated that Facebook’s announcement of Libra “shocked the central bank[s] around the world.” Wood, *China’s Digital Bank*, *supra* note 9.

²² Arendse Huld, *China Launches Digital Yuan App — All You Need to Know*, CHINA BRIEFING (Sept. 22, 2022), <http://www.china-briefing.com/news/china-launches-digital-yuan-app-what-you-need-to-know> [<http://perma.cc/JVT2-WEH6>].

²³ *Id.*

²⁴ “Fintech is a portmanteau for ‘financial technology.’ It’s a catch-all term for technology used to augment, streamline, digitize or disrupt traditional financial services.” Stephanie Walden, *What is Fintech?*, FORBES (July 25, 2022, 3:33 AM), <http://www.forbes.com/advisor/banking/what-is-fintech/> [<http://perma.cc/74WN-23L2>].

²⁵ See Kyng & Yu, *supra* note 1.

²⁶ FANUSIE & JIN, *supra* note 6.

²⁷ Kyng & Yu, *supra* note 1; see also FANUSIE & JIN, *supra* note 6, at 11.

your problem.”²⁸ Section A of Part I shows that built-in tensions and paradoxes inherent in a system where dollar hegemony reigns have resulted in a distorted financial system that is dissatisfactory to many countries. As a result, these countries believe the system is not sustainable because the distortions have caused negative externalities that are detrimental to their economies.

Section B looks beyond dissatisfaction with the *inherent* asymmetries arising out of a system where the money of one country, the United States, also serves as the international reserve currency of the world. Section B examines how the United States has *strategically* leveraged these inherent asymmetries for its own ends and how other countries perceive American exploitation as mismanagement of its dollar stewardship. China and even certain European allies, for example, charge that the United States has overused the dollar as an international economic weapon, particularly in its extraterritorial sanctions regime. Section B focuses on the dollar-based sanctions regime against Iran for two reasons: first, because it provides a blueprint for subsequent dollar sanctions such as those currently imposed against Russia; and second, because it swept many Chinese companies into its orbit. Even as globalization has been touted as creating positive linkages among countries in the international economic system, it has also made many countries susceptible to punitive financial sanctions by the United States because of America’s dollar privilege.

Part II shows that the onset of digital currencies has created new and unique opportunities for countries like China to leverage for their own benefit as a counter to dollar dominance. The issue is not whether the dollar will be replaced by the yuan or another currency, or whether this possibility is imminent. That would be too narrow a frame through which to understand current monetary events. The issue is that China is using the digital yuan and its DCEP project to pursue “global dominance in financial technology”²⁹ and “counter U.S. financial influence around the globe.”³⁰ China’s

²⁸ Benjamin Purvis, *Why the Strong Dollar Creates Headaches Globally*, WASH. POST (Dec. 1, 2022, 8:07 AM), http://www.washingtonpost.com/business/why-the-strong-dollar-creates-headaches-globally/2022/12/01/ca16871c-7161-11ed-867c-8ec695e4afcd_story.html [<http://perma.cc/NE8E-GHK4>].

²⁹ See FANUSIE & JIN, *supra* note 6, at 2; see also *Fintech Will Be the Commanding Heights of Global Financial Competition in Future: PBOC Vice-Governor Fan Yifei*, CHINA BANKING NEWS (Nov. 29, 2019), <http://www.chinabankingnews.com/2019/11/29/fintech-will-be-the-commanding-heights-of-global-financial-competition-in-future-pboc-vice-governor-fan-yifei/> [<http://perma.cc/CX78-FQKV>].

³⁰ See FANUSIE & JIN, *supra* note 6, at 2.

“international aim is long term and more aspirational, driven by Beijing’s sense that progress in digital currency is a critical next stage of geopolitical technology competition.”³¹

When Bitcoin first launched in 2009, most governments, except China, were not tuned in to its potential significance.³² But Zhou Xiaochuan, China’s top central banker from 2002 to 2018, has said that he found Bitcoin both dazzling and frightening; as early as 2014, he commissioned a formal study to explore the possibility of a state-issued digitized yuan, starting a project that culminated in the Chinese government’s launching of trials in 2020.³³ Mu Changdu, who oversees the digitalization project at the PBOC declared, “[i]n order to protect our currency sovereignty and legal currency status, we have to plan ahead.”³⁴

Part II begins with an explanation of the apparatus and organization needed to digitalize money and facilitate its interface with the existing banking framework. Part II then examines how China views a digital yuan as a unique opportunity to challenge the dollar’s status as top dog currency. In fact, this objective is projected quite explicitly in one of the government’s marketing projects—an English-language animation circulated by the government’s top broadcaster showing a man in an American flag shirt knocked out by a golden coin representing a digital yuan.³⁵ China’s state media issued a video with this voiceover: “This is one of the building blocks of China’s move toward world market status and greater involvement in setting the framework of the global economy.”³⁶

Part II explores another reason behind China’s enthusiastic endorsement of a digital yuan which I am calling “digitalization with Chinese characteristics.” The term “socialism with Chinese characteristics” was popularized by Deng Xiaoping in the 1980s, who nudged China away from the central plan towards the market, including via foreign investment, to spur economic growth while also insisting, to placate Communist hardliners, that market economics would not be inconsistent with socialist principles.³⁷ Socialism with Chinese characteristics is Marxism

³¹ *Id.*

³² *Areddy, supra* note 2.

³³ *Id.*

³⁴ *Id.*

³⁵ *See id.*

³⁶ *Id.*

³⁷ *See, e.g.,* Lan Cao, *The Cat that Catches Mice: China’s Challenge to the Dominant Privatization Model*, 21 BROOKLYN J. INT’L L. 97, 100 (1995) [hereinafter Cao, *The Cat that Catches Mice*].

adapted to Chinese conditions, shaped by an emphasis on pragmatism—hence Deng’s resort to a Chinese saying, “[i]t does not matter if it is a yellow cat or a black cat, as long as it catches mice,” to support “market socialism.”³⁸ In subsequent years, with the disintegration of the Soviet Union and the concomitant efforts by the former Soviet states to transition from central planning to market through privatization, China also embarked on its own version of privatization, but again, with a twist which could be referred to as “privatization with Chinese characteristics.”³⁹ While the former Soviet states privatized entities by converting state-owned enterprises (“SOE”) into private companies, that is, by selling SOE shares to private buyers,⁴⁰ China claimed to also have engaged in privatization, but it did so not to turn SOE shares into privately owned shares, but to sweep a growing parallel sector of private money, accumulated through market reform initiated during the Deng Xiao Ping era under state control.⁴¹

Part II will show that China again is pursuing state control of the private sector, this time, through its issuance of a digital yuan. Analysts attributed the rise in Bitcoin to Chinese investors who sold yuan and bought Bitcoin.⁴² The growing strength and appeal of private, decentralized cryptocurrencies such as Bitcoin, caused a great deal of consternation within the state apparatus.⁴³

Chinese authorities began shutting down the country’s bitcoin exchanges in 2017.⁴⁴ The move sent a shockwave through the virtual currency market, especially because China has been a hub for Bitcoin mining, with eighty percent of Bitcoin activity

³⁸ See *id.* at 108, 110.

³⁹ See Lan Cao, *Chinese Privatization: Between Plan and Market*, 63 LAW & CONTEMP. PROBS. 13, 17–24 (2000) [hereinafter Cao, *Chinese Privatization*].

⁴⁰ See *id.* at 18.

⁴¹ See *id.* at 43–44, 58.

⁴² See Arjun Kharpal, *Chinese Bitcoin Traders Still Wield “Enormous Influence” Despite Beijing’s 4-year Crypto Crackdown*, CNBC (May 25, 2021, 8:13 PM), <http://www.cnbc.com/2021/05/26/chinese-bitcoin-traders-wield-enormous-influence-despite-crackdown.html> [http://perma.cc/9YFM-MC6N].

⁴³ See Ahmet Faruk Aysan & Farrukh Nawaz Kayani, *China’s Transition to a Digital Currency: Does It Threaten Dollarization?*, 2 ASIA & THE GLOB. ECON. (2022). The goals of private versus state cryptos are different: “[t]he underlying goal of cryptocurrency is to create a market for digital currency absent of state intervention.” *Id.* By contrast, “CBDCs are highly centralized, as they are monitored by the central bank, which maintains complete control over the supply of digital currency in the economy using contractionary and expansionary policies.” *Id.*

⁴⁴ See Aysan & Kyani, *supra* note 42.

taking place using the yuan.⁴⁵ But because holders of virtual currencies can bypass China's capital-controlled banking system, they pose a risk to the government's ability to maintain a grip on the yuan. Even as different countries wrestled with Bitcoin's surge in value, China's growing concern centered mainly on "preventing capital from fleeing to digital currencies" and protecting government power.⁴⁶

The digital yuan, issued and managed by the central bank, allows the government to reassert control over money. At the same time, because it is programmable and trackable, it can be used to reinforce state surveillance and state control. Digitalization by the government removes one of the main appeals of cryptocurrencies— anonymity. It equips the state with new tools to monitor every aspect of the economy and the activities of its peoples, with implications for "surveillance, privacy, and anonymity."⁴⁷ As Martin Chorzepa of the Peterson Institute for International Economics in Washington, D.C., said, "[n]o government has a more ambitious and far-reaching plan to harness the power of data to change the way it governs than the Chinese government."⁴⁸

In sum, although it may not appear that the dollar's reign is threatened in any serious way, this Article argues that there are enough crevices and fissures in the dollar-dominated monetary system such that a challenge to the dollar's hegemony is likely and foreseeable. As Josh Lipsky, formerly of the International Monetary Fund ("IMF") and now a staffer at the Atlantic Council, recognized, "[a]nything that threatens the dollar is a national-security issue. This threatens the dollar over the long term."⁴⁹

⁴⁵ See Chao Deng & Paul Vigna, *China to Shut Bitcoin Exchanges*, WALL ST. J. (Sept. 11, 2017, 8:16 PM), <http://www.wsj.com/articles/china-to-shut-bitcoin-exchanges-sources-1505100862>.

⁴⁶ *Id.* China's central bank drafted instructions prohibiting Chinese platforms from providing virtual-currency trading services in a move designed to end commercial trading. *See id.*

⁴⁷ *Digital Yuan Gives China a New Tool to Strike Back at Critics*, BLOOMBERG (Apr. 20, 2021, 10:02 PM), <http://www.bloomberg.com/news/articles/2021-04-20/digital-yuan-gives-china-a-new-tool-to-strike-back-at-critics>.

⁴⁸ See Christina Larson, *Who Needs Democracy When You Have Data?*, MIT TECH. REV. (Aug. 20, 2018), <http://www.technologyreview.com/2018/08/20/240293/who-needs-democracy-when-you-have-data/> [<http://perma.cc/LF5N-WRC2>]. The government has used networked technology to harvest data about people and firms and to monitor citizens. *See infra* notes 249–250.

⁴⁹ Areddy, *supra* note 2.

I. DOLLAR HEGEMONY AND “EXORBITANT PRIVILEGE”

A. The Dollar and the International Economic System

Through various cycles, money has been reinvented in different ways,⁵⁰ culminating most recently in the establishment of the post-World War II international economic system at Bretton Woods, New Hampshire. Before Bretton Woods, although this is by no means uniform throughout history, the major economies, particularly the West, fixed their currencies to gold which did not require the establishment or management of any permanent international institution because all that was needed was convertibility rights of “tender notes (bank notes) in a defined amount of gold.”⁵¹

As each country fixed its currency to gold, no one country was in a privileged position, since the coin of the realm was gold, not any particular currency. However, a major downside of the Gold Standard was that it constrained the ability of states to increase their money supply because such supply was linked to the availability of relatively scarce gold reserves.⁵² This limit on the ability of states to actively manage their monetary policy was found to be problematic, especially during wartime.

The interwar years between World War I and II were turbulent economically, with different countries alternating between maintaining and severing their currencies from gold.⁵³ Bretton Woods’ objective was a return to stability, and it was agreed that the post-war financial system should be linked to gold, given “the extent to which gold was seen as a symbol of stability.”⁵⁴

⁵⁰ See generally Lan Cao, *Currency Wars and the Erosion of Dollar Hegemony*, 38 MICH. J. INT’L L. 57, 73–78 (2016) [hereinafter Cao, *Erosion of Dollar Hegemony*] (discussing the history of money).

⁵¹ GIOVANNI TRIA & ANGELO FEDERICO ARCELLI, TOWARDS A RENEWED BRETTON WOODS AGREEMENT 2 (2020); see also THOMAS COTTIER ET AL., INTERNATIONAL LAW IN FINANCIAL REGULATION AND MONETARY AFFAIRS 53 n. 1 (2012); Andreas F. Lowenfeld, *The International Monetary System: A Look Back Over Seven Decades*, 13 J. INT’L ECON. L. 575, 576 (2010).

During the Depression, to ensure the continued fixed exchange rate between gold and dollar and to ensure that private citizens would not hoard gold and dump dollars, President Franklin Delano Roosevelt issued Executive Order 6102, which not only banned private ownership of gold by U.S. citizens but also required U.S. persons, with few exceptions, to surrender their gold in exchange for paper money at the exchange rate of \$20.67 per ounce. JAMES RICKARDS, CURRENCY WARS, THE MAKING OF THE NEXT GLOBAL CRISIS 71 (2012) [hereinafter RICKARDS, CURRENCY WARS].

⁵² See *Pro and Con: Gold Standard*, Britannica, <http://www.britannica.com/story/pro-and-con-gold-standard#:~:text=A%20gold%20standard%20would%20reduce,and%20increase%20the%20national%20debt> [http://perma.cc/DZ4L-6VPC] (last visited Apr. 6, 2023).

⁵³ RICKARDS, CURRENCY WARS, *supra* note 51, at 60–90.

⁵⁴ KWASI KWARTENG, WAR AND GOLD: A FIVE-HUNDRED-YEAR HISTORY OF EMPIRES, ADVENTURES, AND DEBT 4 (2014).

As the dominant superpower after World War II, the United States, accounting for fifty percent of the world's Gross Domestic Product ("GDP"), became the dominant architect of the new post-war order.⁵⁵ The United States favored a return, albeit indirectly, to a Gold Standard, not based on gold, but on the U.S. dollar as the main international reserve currency.⁵⁶ International monetary exchange rates were fixed to the dollar, and the dollar was then fixed to gold at the price of \$35 dollars per ounce.⁵⁷ IMF members formed a money pool by contributing their currencies and gold, which the IMF could then, under strict rules, lend to countries in need.⁵⁸ The system was tied to gold, indirectly, via the dollar.

The dollar, thus, was essentially as good as gold, since it was backed by and convertible to gold upon demand. Gold had to be mined but the dollar only had to be printed. When the United States issues treasury bonds, the world buys them because the world desires dollar securities, trusting that the dollar will be stable and that the securities are backed by the full faith and credit of the United States.⁵⁹ Such high demand for dollar securities means the United States does not have to pay high interest rates on them, allowing Americans to have "access to a vast supply of credit and permit[s] the public to borrow at lower interest rates for homes and automobiles and the government to finance larger deficits longer and at lower interest rates."⁶⁰

As a result, the United States, unlike other countries, does not have to "worry about balance of payments crises as it can pay for imports in dollars the Federal Reserve can just print."⁶¹ This quintessential American capacity "to purchase foreign goods and companies using resources conjured out of thin air was the exorbitant privilege of which French Finance Minister Valery

⁵⁵ See TRIA & ARCELLI, *supra* note 51, at vii.

⁵⁶ Nick Lioudis, *What is the Gold Standard? Advantages, Disadvantages, and History*, INVESTOPEDIA (Mar. 4, 2022), <http://www.investopedia.com/ask/answers/09/gold-standard.asp> [<http://perma.cc/3P4K-EEYH>].

⁵⁷ *Id.*

⁵⁸ See J. KEITH HORSEFIELD, *THE INTERNATIONAL MONETARY FUND 1945-1965: TWENTY YEARS OF INTERNATIONAL MONETARY COOPERATION VOLUME 1: CHRONICLE 18-19* (1969).

⁵⁹ Shobhit Seth, *Why China Buys U.S. Debt With Treasury Bonds*, INVESTOPEDIA (Oct. 23, 2022), <http://www.investopedia.com/articles/investing/040115/reasons-why-china-buys-us-treasury-bonds> [<http://perma.cc/38KR-EJMA>].

⁶⁰ KISHORE MAHBUBANI, *THE GREAT CONVERGENCE: ASIA, THE WEST AND THE LOGIC OF ONE WORLD* 72 (2014).

⁶¹ Liam Halligan, *The Dollar's 70-year Dominance Is Coming to An End*, THE TELEGRAPH (July 19, 2014, 5:30 PM) [hereinafter Halligan, *The Dollar's Dominance*], <http://www.telegraph.co.uk/finance/comment/liamhalligan/10978178/The-dollars-70-year-dominance-is-coming-toan-end.html> [<http://perma.cc/Z826-PW5R>].

Giscard d'Estaing so vociferously complained.”⁶² The French indignantly pushed for a return to gold, which they viewed as “an indisputable monetary base, and one that does not bear the mark of any particular country.”⁶³ If the French demand had been met, it would have resulted in the United States having to pay its foreign debt, not in its own currency which it prints, but in gold.⁶⁴ The United States would not be able to continue running persistent and massive trade deficits because it would run out of gold, and U.S. consumers would also need to reduce their purchases of foreign goods.⁶⁵

From a normative standpoint, there is a built-in, systemic asymmetry when one country's national currency also serves as the world's international reserve currency, leading predictably to friction and policy disputes. As the economist Robert Triffin predicted and explained as early as the 1960s, the country whose currency functions as an international reserve currency is faced with a paradox.⁶⁶ While it derives an “exorbitant privilege”⁶⁷ from this unique position, it must also be willing to supply the world with its currency to fulfill the world's economic needs, usually by running a trade deficit—that is, by importing foreign goods and services and paying in its own national currency, which provides the foreign countries with the dollar they need.⁶⁸ To maintain the Bretton Woods arrangement, the United States had to support a balance of payments current account⁶⁹ deficit to provide international liquidity for the conversion of U.S. dollars into gold, upon demand. The outflow of U.S. dollars from trade is also exacerbated by an outflow due to other reasons, such as the Marshall Plan to rebuild Europe and support for U.S. military bases established abroad.⁷⁰

⁶² BARRY EICHENGREEN, EXORBITANT PRIVILEGE 40 (2011).

⁶³ RICKARDS, CURRENCY WARS, *supra* note 51, at 82.

⁶⁴ See PAUL R. VIOTTI, THE DOLLAR AND NATIONAL SECURITY: THE MONETARY COMPONENT OF HARD POWER 15 (2014).

⁶⁵ See KWARTENG, *supra* note 54, at 211.

⁶⁶ Tim Smith, *How the Triffin Dilemma Affects Currencies*, INVESTOPEDIA (Sept. 15, 2022), <http://www.investopedia.com/financial-edge/1011/how-the-triffin-dilemma-affects-currencies.aspx> [<http://perma.cc/ZDV6-5V2S>].

⁶⁷ EICHENGREEN, *supra* note 62, at 40.

⁶⁸ See Smith, *supra* note 66.

⁶⁹ Balance of payments of a country is the difference between money flowing into the country during a period of time versus the outflow of money to the world as a result of financial transactions made by individuals, firms, as well as government bodies. See Reem Heikal, *What Is the Balance of Payments?*, INVESTOPEDIA (Apr. 3, 2022), <http://www.investopedia.com/insights/what-is-the-balance-of-payments> [<http://perma.cc/K44A-D8K8>]. A country's current account records the value of imports and exports of goods and services as well as international transfers of capital. See *id.*

⁷⁰ See Smith, *supra* note 66.

In the end, the U.S. dollar in circulation outside the United States exceeded the amount of gold the United States itself held in reserve, making the Gold Standard indirectly anchored to the U.S. dollar unsustainable in the long run. Foreign governments also sought to exchange dollars they held for physical gold, depleting U.S. gold reserves.

In August 1971, President Richard Nixon shocked the world by announcing that dollars could no longer be exchanged for gold, closing the “gold window.”⁷¹ The end of the Bretton Woods era meant that the dollar was no longer tied to gold; the United States would no longer intervene in the market to fix the par value of gold to the dollar.⁷² In essence, the dollar became nothing but paper currency unbacked by something of extrinsic value. Nonetheless, the dollar remained the world’s central currency, a status sealed by a deal struck between the United States and Saudi Arabia in which oil would be traded exclusively in U.S. dollars. Indeed, “the United States has guaranteed Saudi Arabia’s security in exchange for Saudi support for the dollar as the sole medium of exchange for energy exports”⁷³

Because every country still needed oil, every country still needed to accumulate dollars even when it was no longer anchored to gold. It is primarily through the Saudi deal “that the dollar came to occupy a genuinely central role in world commodities trade,”⁷⁴ allowing it to pay higher OPEC (Organization of the Petroleum Exporting Countries) cartel prices for oil in its own currency whereas other countries had to buy dollars to make oil payments which in turn meant they had to accumulate dollar reserves.

Dollar supremacy, however, became increasingly problematic in an increasingly multi-polar world. The international economic system lurched from crisis to crisis;⁷⁵ but for the most part, the

⁷¹ Will Kenton, *What is Nixon Shock? Definition, What Happened, and Aftereffects*, INVESTOPEDIA (Aug. 30, 2022), <http://www.investopedia.com/terms/n/nixon-shock.asp> [<http://perma.cc/Y97G-5XSL>].

⁷² See RICKARDS, CURRENCY WARS, *supra* note 51, at 86.

⁷³ JAMES RICKARDS, THE DEATH OF MONEY 156 (2014) [hereinafter RICKARDS, DEATH OF MONEY].

⁷⁴ John A. Mathews & Mark Selden, *China: The Emergence of the Petro Yuan and the Challenge to US Dollar Hegemony*, 16 ASIA PACIFIC J. 1, 6 (2018), <http://apjif.org/-Mark-Selden—John-A—Mathews/5218/article.pdf> [<http://perma.cc/4QB9-SDP9>].

⁷⁵ There were multiple currency crises that were not dollar-related—for example, the 1991 sterling crisis, the 1994 Mexico peso crisis, and the 1997 East Asia-Russia crisis. See generally Cao, *Erosion of Dollar Hegemony*, *supra* note 50. These crises actually had the effect of strengthening the dollar because it was viewed all the more as a safe haven in a world of monetary turbulence. See RICKARDS, CURRENCY WARS, *supra* note 51, at 96–97; see generally Cao, *Erosion of Dollar Hegemony*, *supra* note 50.

dollar remains strong—until the next crisis. The financial crisis of 2007-2008 revealed deep fractures in the system generally and the monetary relationship between China and the United States particularly. Zhou Xiaochuan, the governor of the PBOC specifically mentioned the Triffin dilemma as one of the root causes of international monetary disruptions:

Issuing countries of reserve currencies are constantly confronted with the dilemma between achieving their domestic monetary policy goals and meeting other countries' demand for reserve currencies. On the one hand, the monetary authorities cannot simply focus on domestic goals without carrying out their international responsibilities; on the other hand, they cannot pursue different domestic and international objectives at the same time.⁷⁶

Governor Zhou has advocated in favor of “[t]he reestablishment of a new and widely accepted reserve currency with a stable valuation benchmark . . . [that is], the creation of an international currency unit, based on the Keynesian proposal.”⁷⁷

Given the Triffin Dilemma and China's export-oriented strategy, it was predictable that the yuan and the dollar would be on a collision course and that China would spearhead the campaign to destabilize the dollar system. After the Tiananmen Square crisis, the government focused on export-oriented economic growth, and consequently, political stability.⁷⁸ To encourage the world to buy China's exports by making their products cheaper, the Chinese government kept the yuan deliberately devalued, using six rounds of devaluations over a ten-year period.⁷⁹

The devalued yuan created a vicious cycle for U.S. monetary policy as well. In 2002, then Fed Chairman Alan Greenspan responded by lowering U.S. interest rates, adopting a 4.75 % cut from July 2000 to July 2002, to accomplish several objectives, such as addressing the tech bubble burst but also counteracting China's monetary policy.⁸⁰ A devalued yuan meant cheap Chinese exports and consequently falling prices, which could result in persistent deflation—as businesses and consumers wait for prices to fall even

⁷⁶ Zhou Xiaochuan, *Reform the International Monetary System*, BANK FOR INT'L SETTLEMENTS 1 (Mar. 23, 2009), <http://www.bis.org/review/r090402c.pdf> [<http://perma.cc/S6AK-YEQV>].

⁷⁷ *Id.* at 2.

⁷⁸ See RICKARDS, CURRENCY WARS, *supra* note 51, at 102–03.

⁷⁹ See *id.* at 101.

⁸⁰ See *id.* at 103–04.

lower before committing to a transaction.⁸¹ The Fed kept interest rates in the United States low to ward off deflation. Predictably, a policy of sustained low interest rates meant that even marginal borrowers with a weak credit record would be able to borrow while institutional investors who need a higher rate of return and higher yield would venture in search of higher risk instruments besides money market and U.S. government securities. The end result: subprime residential and commercial loans that ultimately borrowers could not carry, leading to the 2008 financial crisis and housing bubble in the United States.⁸²

However, the U.S. strategy of low interest rates, coupled with printing dollars to create new money and increase the money supply, also had global effect and contributed to the financial crisis in China and elsewhere. To focus on China as an example of the increasingly dysfunctional and problematic monetary relationship between the dollar and the yuan: the yuan has been pegged to the dollar until 2006 when China permitted it to float within a narrow margin centered around a fixed base rate determined by a basket of world currencies.⁸³ The PBOC control of the yuan in international settlement means, for example, that when a Chinese exporter is paid in dollars, the exporter must hand the dollars over to the PBOC in exchange for yuan at the official pegged rate. Furthermore, in order to keep the yuan devalued vis-à-vis the dollar, and conversely, the dollar overvalued vis-à-vis the yuan, the PBOC must fan further demand for dollars by purchasing dollars.⁸⁴ To preserve the dollar-yuan peg, dollar accumulation also meant that China had to print more yuan which it would use to buy dollars. “In effect, China had outsourced its monetary policy to the Fed, and as the Fed printed more, the PBOC also printed more in order to maintain the pegged exchange rate.”⁸⁵

⁸¹ See Heather Stewart, *China's Currency Devaluation Could Spark "Tidal Wave of Deflation,"* THE GUARDIAN (Aug. 12, 2015), <http://www.theguardian.com/business/2015/aug/12/chinas-currency-devaluation-could-spark-tidal-wave-of-deflation> [<http://perma.cc/28Z2-H22V>].

⁸² See *id.*

⁸³ China recognizes the disadvantages of pegging the yuan to the dollar. In January 2016, Fang Xinghai, a senior economic adviser to the Chinese leadership, said the government should “manage the yuan according to its performance against a basket of global currencies, as opposed to just setting it against the U.S. dollar.” Lingling Wei & Jon Hilsenrath, *China Trying to Allay Global Concerns About Its Currency Regime*, WALL ST. J. (Jan. 21, 2016), <http://www.wsj.com/articles/china-serious-about-move-to-unpeg-yuan-from-yuan-from-u-s-dollar-says-official-1453372857> [<http://perma.cc/53ZE-J7MY>].

⁸⁴ See WAYNE M. MORRISON & MARC LABONTE, CONG. RSCH. SERV., RL34314, CHINA'S HOLDINGS OF U.S. SECURITIES: IMPLICATIONS FOR THE U.S. ECONOMY 1 (2008). Note that the RMB is also known as the yuan.

⁸⁵ RICKARDS, CURRENCY WARS, *supra* note 51, at 106.

As an example of how U.S. dollar policy affects the world, when the United States was faced with the 2008 financial crisis, it pursued a strategy dubbed the “secret weapon”—quantitative easing or QE.⁸⁶ The Fed could have cut interest rates to lower the price of money available to consumers⁸⁷ to spur spending as a counter to the financial crisis; but instead it decided to increase the supply of money “by going into the financial markets to buy assets and . . . [creating] new money to pay for them.”⁸⁸ QE is the preferred strategy if interest rates are already very low and there is not much room to make them lower.⁸⁹ Central banks, such as the Fed, create money electronically, the equivalent of “printing money” although no new physical notes need to be produced.⁹⁰ Pursuant to QE, this newly created money is used to buy government and other securities.⁹¹ Given the high demand for such bonds, the price of the bonds will go up; when the prices of bonds go up because of high demand, interest rates on those bonds go down, since the bond issuer does not need to convince people to buy them by promising high interest rates, as demand for the bonds already exists. When interest rates go down, more people are able to borrow and spend money.⁹²

However, as explained further below, QE had a huge impact on other currencies, particularly the yuan. John Williams, President of the Federal Reserve Bank in San Francisco in 2011 explained:

When interest rates in the U.S. fall relative to rates in other countries, the dollar tends to decline as money flows to foreign markets with higher returns. One estimate is that a \$600 billion program like QE2

⁸⁶ See *id.* at 133.

⁸⁷ “Lower rates mean you get less interest on your savings, so it’s less attractive to save money than to spend it. And lower interest rates make it cheaper to borrow money, so it’s easier to buy a new house, or car, or expand your business.” Ben King, *What is Quantitative Easing And How Will It Affect You*, BBC NEWS (Nov. 5, 2020), <http://www.bbc.com/news/business-15198789> [<http://perma.cc/7VMW-UFJW>].

⁸⁸ Andrew Walker, *Has Quantitative Easing Worked in the U.S.?*, BBC NEWS (Oct. 30, 2014), <http://www.bbc.com/news/business-29778331> [<http://perma.cc/Q9SL-MY62>].

⁸⁹ Nathaniel Frentz et al., *How the Federal Reserve’s Quantitative Easing Affects the Federal Budget*, CONG. BUDGET OFFICE, NONPARTISAN ANALYSIS FOR THE U.S. CONG. (Sept. 2022), <http://www.cbo.gov/publication/58457#:~:text=Historically%2C%20the%20Federal%20Reserve%20has,increasing%20liquidity%20in%20financial%20markets> [<http://perma.cc/A7EL-JPLG>] (“Historically, the Federal Reserve has used QE when it has already lowered interest rates to near zero and additional monetary stimulus is needed. QE provides that additional stimulus by reducing long-term interest rates and increasing liquidity in financial markets.”).

⁹⁰ See *id.*

⁹¹ See Investopedia Team, *What is Quantitative Easing (QE), and How Does It Work?*, (Aug. 8, 2022), <http://www.investopedia.com/terms/q/quantitative-easing.asp> [<http://perma.cc/JK3L-AVMV>].

⁹² See *id.*

causes the dollar to fall by roughly 3 or 4% That helps stimulate the U.S. economy by making American goods more competitive at home and abroad.⁹³

U.S. exports increased.⁹⁴ Once QE put more dollars into circulation, the value of the dollar depreciates. Its status as the world's reserve currency means that many products, especially commodities, are priced in dollars. When the dollar goes down, the price of such products goes up (because it takes more dollars to buy them).⁹⁵ China and other countries that depend on purchasing raw materials to make for exports are faced with a steep rise in manufacturing costs.⁹⁶ China's trade minister, Chen Deming, said, "[u]ncontrolled printing of dollars and rising international prices for commodities are causing an imported inflationary 'shock' for China and are a key factor behind increasing uncertainty."⁹⁷

Through QE, the United States got the exact result it wanted. The United States didn't get a devalued yuan as it wished, but it was able to export inflation to China.⁹⁸ More dollars flowed into China, causing the Chinese to have to recalibrate the yuan to U.S./yuan peg, as already observed. Chinese revaluation of the yuan and U.S.-exported inflation increased the costs of Chinese exports, which meant U.S. exports became relatively more competitive.⁹⁹

U.S. QE policy ensured low interest rates in the United States and elsewhere. The Brazilian Finance Minister, Guido Mantega, called this combustible situation of commodity inflation a "currency war" launched by the United States, remarking that "Brazil was stuck between the rock of currency appreciation and the hard place of inflation."¹⁰⁰ Inflation, after all, was one of the major sparks for the 1989 Tiananmen Square

⁹³ John C. Williams, *The Federal Reserve's Unconventional Policies*, FRBSF ECON. LETTER (Nov. 13, 2012), <http://www.frbsf.org/economic-research/publications/economic-letter/2012/november/federal-reserve-unconventional-policies> [<http://perma.cc/TF7Q-HGTC>].

⁹⁴ *U.S. Exports 1970-2023*, MACROTRENDS, <http://www.macrotrends.net/countries/USA/united-states/exports> [<http://perma.cc/UET4-RATV>] (noting that U.S. exports increased from 2011 to 2012).

⁹⁵ Chuck Kowalski, *How the Dollar Impacts Commodity Prices*, THE BALANCE, <http://www.thebalancemoney.com/how-the-dollar-impacts-commodity-prices-809294#:~:text=Historically%2C%20the%20prices%20of%20commodities,of%20commodities%20generally%20move%20higher> [<http://perma.cc/Q5AB-6PTB>] (last updated Dec. 29, 2021).

⁹⁶ Ben Baden, *Why China Has a Point About Quantitative Easing*, U.S. NEWS (Oct. 29, 2010), <http://money.usnews.com/money/business-economy/articles/2010/10/29/why-china-has-a-point-about-quantitative-easing> [<http://perma.cc/NT8D-VCA8>].

⁹⁷ *Id.*

⁹⁸ For the United States, however, despite an oversupply of newly created money, inflation is contained because the United States gets cheap imports from trade. See RICKARDS, DEATH OF MONEY, *supra* note 73, at 75.

⁹⁹ RICKARDS, CURRENCY WARS, *supra* note 51, at 135–36.

¹⁰⁰ *Id.* at 123.

protests.¹⁰¹ Dollar inflows into emerging economies in search of higher yields caused chaos in countries such as South Korea, Brazil, Indonesia, Thailand, Vietnam, and elsewhere.¹⁰² There may be many reasons behind the rise in commodity prices in many countries, and in the Middle East, desertification or drought is certainly one reason; but commentators have noted the connection between QE by the United States and food prices rising in many parts of the world, triggering riots and revolutions like the Arab Spring.¹⁰³ The Middle East and North Africa, which depend heavily on imported food, saw food prices rising 37% in Egypt,¹⁰⁴ and 59% in Jordan and Syria.¹⁰⁵ It was not surprising then that “[t]he civil unrest, riots and insurrection that erupted in Tunisia in early 2011 and quickly spread to Egypt, Jordan, Yemen, Morocco, Libya and beyond were as much a reaction to rising food and energy prices and lower standards of living as they were to dictatorships and lack of democracy.”¹⁰⁶ It is certainly no coincidence that the person who catalyzed the Arab Spring protests by self-immolation, Mohamad Bouazizi, was a food vendor.¹⁰⁷ With China clinging on to its tried-and-true export-oriented growth model through the deliberate devaluation of the yuan, and with the United States insistent that it will “inflate away China’s export cost advantage,”¹⁰⁸ inflation was exported to many other countries besides China.

And so, the familiar story continues. In a system in which one country can merely print money while other countries have to produce and export in order to gain access to the first country’s

¹⁰¹ See Simon Constable, *Why China’s Leaders Should Start Freaking Over Pork Prices*, FORBES (Mar. 14, 2017), <http://www.forbes.com/sites/simonconstable/2017/03/14/why-chinas-leaders-should-start-freaking-over-pork-prices/?sh=4e1f1d7c6007> [<http://perma.cc/UZA3-K6T9>] (discussing how inflation, especially rising food prices, sparked the Tiananmen Square uprising and also the Arab Spring).

¹⁰² RICKARDS, CURRENCY WARS, *supra* note 51, at 137.

¹⁰³ See Andrew Lilico, *How the Fed Triggered the Arab Spring Uprisings in Two Easy Graphs*, THE TELEGRAPH (May 4, 2011), <http://www.telegraph.co.uk/finance/economics/8492078/How-the-Fed-triggered-the-Arab-Spring-uprisings-in-two-easy-graphs.html>. [<http://perma.cc/J9FD-SFQY>].

¹⁰⁴ Rami Zurayk, *Use Your Loaf: Why Food Prices Were Crucial in the Arab Spring*, THE GUARDIAN (July 16, 2011), <http://www.theguardian.com/lifeandstyle/2011/jul/17/bread-food-arab-spring> [<http://perma.cc/7A3X-HWPX>].

¹⁰⁵ Radi Khasawnay, *Is the West to Blame for Middle East Unrest*, FIN. NEWS (Feb. 1, 2011), <http://www.fnlondon.com/articles/qe-blame-unrest-20110201> [<http://perma.cc/NV4J-HSCY>].

¹⁰⁶ RICKARDS, CURRENCY WARS, *supra* note 63 at 138.

¹⁰⁷ Joe Sterling, *A Year Later, Bouazizi’s Legacy Still Burns*, CNN (Dec. 17, 2011), <http://www.cnn.com/2011/12/17/world/meast/arab-spring-one-year-later/index.html> [<http://perma.cc/2HHC-5U2J>].

¹⁰⁸ RICKARDS, CURRENCY WARS, *supra* note 51, at 138.

money because it is a world reserve currency, there is bound to be intense dissatisfaction. But this dissatisfaction is understood to emerge from the intrinsic structure of the system. The problem is compounded, however, when the top-dog country not only benefits from the system but leverages its currency as a weapon against others it wishes to isolate and ostracize.

B. Weaponizing the Dollar-based System

Given the dollar's unique and dominant status, the system spawned by dollar internationalization can and has been used as a weapon against countries the United States determines should be punished. The oversized role of the dollar in the international financial system has caused growing consternation from the beginning, not just with the Soviet bloc but also among the non-aligned and even American allies, all of whom feared dollar weaponization through sanctions or seizures.¹⁰⁹ Even before 9/11, the United States had engaged in dollar weaponization in varying degrees, ranging from seizing dollar reserves against specific countries, like Iran in the 1970s¹¹⁰ and freezing Libya's assets in the 1980s,¹¹¹ to more general measures designed to effectuate money-laundering, anticorruption and taxation policies extraterritorially.¹¹² But after 9/11, the use of the dollar as a weapon intensified; as President George W. Bush declared, the United States aimed to "starve the terrorists of funding"¹¹³ in a way only the United States, through its dollar hegemony, can.

This Section B examines two significant sanction regimes imposed by the United States against Iran and Russia, and how such dollar-based sanctions have accelerated global, particularly Chinese, dissatisfaction with dollar dominance. Section B uses Iran as a study of American financial warfare because the Iranian experience became a model for subsequent actions such as those currently in place against Russia. Dollar weaponization has also been referred to as "dollar unilateralism"—using "the unique status of the U.S. dollar in global financial markets to pursue

¹⁰⁹ See, e.g., JULIUS SEN, LSE IDEAS, THE WEAPONISATION OF THE DOLLAR: POLICY OPTIONS FOR SMALL COUNTRIES (2019), <http://www.lse.ac.uk/ideas/Assets/Documents/updates/LSE-IDEAS-Weaponisation-Dollar.pdf> [<http://perma.cc/WP6X-SP2S>].

¹¹⁰ See Exec. Order No. 12170, 3 C.F.R. 457-58 (1979).

¹¹¹ See Exec. Order No. 12544, 3 C.F.R. 183 (1986).

¹¹² See RENA S. MILLER & LIANA W. ROSEN, CONG. RSCH. SERV., R44776, ANTI MONEY LAUNDERING: AN OVERVIEW FOR CONGRESS 11 (2017).

¹¹³ *President Bush Addresses the Nation*, WASH. POST (Sept. 20, 2001) http://www.washingtonpost.com/wp-srv/nation/specials/attacked/transcripts/bushaddress_092001.html [<http://perma.cc/89Q2-CDHY>].

policy goals independently, rather than work through traditional inter-governmental and multilateral channels.”¹¹⁴ Stuart Levey, the Treasury Department’s first under-secretary of terrorism and financial intelligence, recalled President George W. Bush’s concern that the United States did not have adequate leverage because conventional trade sanctions had been used against Iran.¹¹⁵ Levey’s solutions centered around restricting Iran’s access to the international financial system¹¹⁶ including accounts with links to Iran’s government held in European banks.¹¹⁷

Similarly, when President Obama was considering military action against Iranian nuclear installations, the administration turned instead to dollar warfare to strangle Iran’s economy.¹¹⁸ The steps the United States took to sanction Iran, according to Levey, paved the way for sanctions to be speedily launched against Russia in 2022. As Levey put it, “[o]n Iran, we were using machetes to cut down the path step by step, but now people are able to go down it very quickly. . . . Going after the central bank of a country like Russia is about as powerful a step as you can take in the category of financial sector sanctions.”¹¹⁹

The increasing weaponization of the dollar has caused some consternation even in the United States as expressed in 2016 by Jacob Lew, the Secretary of the Treasury:

We must be conscious of the risk that overuse of sanctions could undermine our leadership position within the global economy, and the effectiveness of the sanctions themselves. . . . [F]inancial transactions may begin to move outside of the United States entirely, which could threaten the central role of the U.S. financial system globally, not to mention the effectiveness of our sanctions in the future.¹²⁰

¹¹⁴ Suzanne Katzenstein, *Dollar Unilateralism: The New Frontline of National Security*, 90 IND. L.J. 293, 294–95 (2015).

¹¹⁵ See Valentina Pop, Sam Fleming & James Politi, *Weaponisation of Finance: How the West Unleashed ‘Shock and Awe’ on Russia*, Fin. Times (Apr. 6, 2022), <http://www.ft.com/content/5b397d6b-bde4-4a8c-b9a4-080485d6c64a> [<http://perma.cc/NA92-46KQ>].

¹¹⁶ See *id.*

¹¹⁷ See *id.*

¹¹⁸ See *id.*

¹¹⁹ *Id.*

¹²⁰ Jackie Calmes, *Lew Defends Sanctions but Cautions on Overuse*, N.Y. TIMES (Mar. 29, 2016), <http://www.nytimes.com/2016/03/30/us/politics/lew-defends-sanctions-but-caution-on-overuse.html> [<http://perma.cc/9L7U-58GJ>]; see also Adam Szubin, Acting Under Secretary, U.S. Dep’t of the Treasury, Remarks by Acting Under Secretary Adam Szubin at the Foundation for Defense of Democracies Annual Forum (Apr. 13, 2016), <http://home.treasury.gov/news/press-releases/j10419> [<http://perma.cc/AF8U-ZQLW>] (observing the need to “balance the cost and benefits of sanctions”).

Ironically, or perhaps not, this sentiment was echoed by a Chinese commentator, Ma Xin, who stated, “[a]s America increasingly utilizes financial sanctions and its financial power, it also increasingly encourages peripheral countries to ‘de-dollarize.’ This gives the internationalization of the yuan a strategic opening.”¹²¹

One of the most comprehensive sanctions regimes was imposed upon Iran through a succession of Security Council Resolutions. On December 23, 2006, the Resolution 1737 was approved, requiring member states to use financial sanctions such as asset freezes and financial service prohibitions against designated entities and individuals.¹²² The list of sanctioned entities and individuals was further expanded through Resolution 1803, which was passed on March 3, 2008.¹²³

The United States, however, also imposed unilateral secondary sanctions against foreign companies, especially those that transacted with Iran’s energy sector.¹²⁴ For example, it blocked the Central Bank of Iran from accessing the U.S. financial market.¹²⁵ Because the United States had minimal investment in Iran since the hostage crisis of 1979, U.S. government prohibition alone was not sufficient to isolate Iran and therefore, the United States needed to limit non-U.S. financial institutions as well from transacting with Iranian banks.¹²⁶ For example, under the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (“CISADA”), signed into law by President Obama on July 1, 2010,¹²⁷ the Treasury Department was empowered to terminate the accounts of non-U.S. financial institutions that did certain kinds of businesses

¹²¹ MA XIN, FINANCIAL SANCTIONS: AMERICA’S NEW TYPE OF GLOBAL ASYMMETRIC POWER 189 (2013) (cited in Cameron Rotblat, Comment, *Weaponing the Plumbing: Dollar Diplomacy, Yuan Internationalization, and the Future of Financial Sanctions*, 12 UCLA J. INT’L L. & FOREIGN AFF. 311, 312 (2017)).

¹²² S.C. Res. 1737 (Dec. 23, 2006).

¹²³ S.C. Res. 1803 (Mar. 3, 2008).

¹²⁴ Cameron Rotblat, Comment, *Weaponing the Plumbing: Dollar Diplomacy, Yuan Internationalization, and the Future of Financial Sanctions*, 12 UCLA J. INT’L L. & FOREIGN AFF. 311, 320 (2017).

¹²⁵ *Id.* at 321; see also Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), Pub. L. No. 107-56, § 311, 116 Stat. 272, 298-304 (codified as amended at 31 U.S.C. §5318A).

¹²⁶ See JUAN C. ZARATE, TREASURY’S WAR: THE UNLEASHING OF A NEW ERA OF FINANCIAL SANCTIONS 290–316 (2013); see also Rotblat, *supra* note 124, at 321.

¹²⁷ The Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA), Pub. L. No. 111-195, 124 Stat. 1312 (codified at 22 U.S.C. §§ 8501–51).

with Iran¹²⁸ as well as businesses with the Central Bank of Iran,¹²⁹ with an authorized escape valve—a provision allowing President Obama to grant 180-day exceptions for any entity that significantly reduced its Iranian crude oil purchases.¹³⁰

So powerful is the reach and scope of the U.S. dollar that even banks with no territorial presence in the United States hold dollar-denominated accounts at U.S. banks for their customers who need access to U.S. dollars.¹³¹ Because of the dollar's singular dominance, the United States could effectively launch secondary sanctions that are effective simply by threatening to sever any bank, U.S. or otherwise, from access to U.S. financial system if the bank at issue conducted business with Iranian banks. Forced between choosing access to Iranian banks or U.S. banks, non-U.S. financial institutions are likely to choose the latter.¹³²

Even more potent sanctions have been utilized—banning Iran from the international banking system, the Society for Worldwide Interbank Financial Telecommunication (“SWIFT”), altogether.¹³³ When SWIFT, concerned about its reputation for independence and neutrality, balked,¹³⁴ the Senate Banking Committee adopted a bill on February 2, 2012, granting the U.S. President authority to sanction SWIFT, created under Belgian law, if it provided services to certain Iranian banks. Subject to U.S. pressure, the European Union followed U.S. lead and ordered the Belgium-based organization that manages SWIFT, itself subject to EU laws, to prevent Iranian banks from using it.¹³⁵ This means Iranian banks

¹²⁸ *Id.*

¹²⁹ National Defense Authorization Act for Fiscal Year 2012, Pub. L. No. 112-81, 125 Stat. 1298, 1647 (2011) (“NDAA”). The NDAA for fiscal year 2013 also authorized unilateral sanctions against foreign banks that engaged in “significant financial” transactions with Iran’s energy, shipping, and shipbuilding sectors. National Defense Authorization Act for Fiscal Year 2013, Pub. L. No. 112-239, 126 Stat. 1632, 2007–08 (2012).

¹³⁰ National Defense Authorization Act for Fiscal Year 2012, Pub. L. No. 112-81, 125 Stat. 1298, 1648–49 (2011).

¹³¹ See ALAN WHEATLEY, *THE POWER OF CURRENCIES AND THE CURRENCIES OF POWER* 76 (2013).

¹³² See *Poor Correspondents*, *ECONOMIST* (June 14, 2014), <http://www.economist.com/news/fmance-and-economics/21604183-big-banks-are-cuttingcustomers-and-retreating-markets-fear> [<http://perma.cc/5X2G-7TQF>].

¹³³ Philip Blenkinsop, *Cross-Border Payment Body SWIFT Resists Iran Precedent*, *REUTERS* (Feb. 9, 2012, 6:42 AM), <http://uk.reuters.com/article/uk-iransanctions-swift-idUKTRE818IE920120209> [<http://perma.cc/S8QU-5MDN>].

¹³⁴ *See id.*

¹³⁵ See ORDE F. KITTRIE, *LAWFARE: LAW AS A WEAPON OF WAR* 90 (2016); Rotblat, *supra* note 124, at 323; Rachele Younglai & Roberta Rampton, *U.S. Pushes EU, SWIFT to Eject Iran Banks*, *REUTERS* (Feb. 15, 2012), <http://www.reuters.com/article/us-iran-usa-swift/u-s-pushes-eu-swift-to-eject-iran-banks-idUSTRE81F00I20120216> [<http://perma.cc/2MSB->

could not send or receive international electronic payments which in turn limits Iranian access to international currency.¹³⁶

Despite Chinese resistance to these types of secondary sanctions, even Chinese companies ultimately succumbed to U.S. pressure. It is important to note that China has an interest in engaging with Iran's oil industry, given the fact that Iran "lies at the crossroads of China's 'One Belt, One Road' project, which aims to invest more than \$1 trillion in infrastructure from railroads and ports to energy, in more than 60 countries spanning Europe, Africa and Asia."¹³⁷ Nonetheless, in 2010 and 2011, Chinese energy companies agreed to stop or delay work in Iran's energy sector to avoid U.S. sanctions.¹³⁸ In 2012, the United States increased pressure on China by implementing unilateral secondary sanctions against foreign energy companies and banks that had been authorized under CISADA,¹³⁹ preventing them access to the U.S. financial system.¹⁴⁰ A Chinese bank, the Bank of Kunlun, had to relinquish its international business outside Iran because it had difficulty accessing U.S. dollars; the United States had prohibited U.S. "financial institutions from opening or holding correspondent or payable-through accounts for the Chinese bank."¹⁴¹ China had to reduce Iranian oil imports in order to qualify for Presidential waivers as provided by NDAA.¹⁴²

VZGG]; *Compliance: Swift and Sanctions*, SWIFT, <http://www.swift.com/about-us/legal/compliance-0/swift-and-sanctions> [<http://perma.cc/L373-GZJD>].

¹³⁶ *Id.*

¹³⁷ Kate Duguid, *Iran Oil Sanctions Could Advance China's "Petro Yuan"*, REUTERS (May 10, 2018), <http://www.reuters.com/article/uk-iran-nuclear-china-oil/iran-oil-sanctions-could-advance-chinas-petro-yuan-idUSKBN1IB32H> [<http://perma.cc/UXN6-H2K9>].

¹³⁸ See Chen Aizhu & Chris Buckley, *Exclusive: China Curbs Iran Energy Work*, REUTERS (Sept. 2, 2011), <http://www.reuters.com/article/us-china-iran-usa-idUSTRE78112K20110902> [<http://perma.cc/A5U4-VZEX>]; see also *Oil Sanctions on Iran: Cracking Under Pressure?*, THE ECONOMIST 6 (2012), <http://www.ciaonet.org/attachments/26233/uploads> [<http://perma.cc/3J4Y-QSMR>].

¹³⁹ See *Three Companies Sanctioned Under the Amended Iran Sanctions Act*, U.S. DEPT. OF STATE (Jan. 12, 2012), <http://2009-2017.state.gov/r/pa/prs/ps/2012/01/180552.htm> [<http://perma.cc/G4A3-JJA7>]; see also *Treasury Sanctions Kunlun Bank in China and Elaf Bank in Iraq for Business with Designated Iranian Banks*, U.S. DEP'T OF THE TREASURY (July 31, 2012), <http://home.treasury.gov/news/press-releases/tg1661#:~:text=The%20financial%20institutions%20sanctioned%20today,against%20two%20dozen%20Iranian%20banks> [<http://perma.cc/GF4Q-RAN3>].

¹⁴⁰ *Treasury Sanctions Kunlun Bank in China and Elaf Bank in Iraq for Business with Designated Iranian Banks*, *supra* note 139.

¹⁴¹ Rotblat, *supra* note 124, at 327.

¹⁴² Rick Gladstone, *U.S. Exempts Singapore and China on Iran Oil*, N.Y. TIMES (June 28, 2012), <http://www.nytimes.com/2012/06/29/world/us-exempts-china-and-singapore-from-sanctions-on-iranian-oil.html> [<http://perma.cc/FN2Q-9RJG>]; Timothy Gardner, *U.S. Extends Iran Oil Sanctions Waivers to China, India, South Korea*, REUTERS (Nov. 29, 2013),

Thus, even as Iranian oil was boycotted by the EU and suffered from a dramatic drop in demand, creating an opportunity for China to buy it on the cheap and expand its petroleum reserve, China had no choice but to succumb to U.S. insistence on the maintenance of secondary sanctions against Iran.¹⁴³

The severe drop in Iranian oil exports was the major factor in the ability of the P5+1 countries (consisting of the United Nations Security Council five permanent members plus Germany) to corral Iran into signing the Joint Comprehensive Plan of Action (“JCPOA”) on July 14, 2015, to prevent Iran from developing nuclear weapons.¹⁴⁴ While China voted as a permanent member of the Security Council in favor of UN sanctions, the United States threatened unilateral secondary sanctions against China, preventing Chinese banks from accessing the U.S. financial system should any do business with Iran, even in areas not included in Security Council resolutions.¹⁴⁵ The dollar-based sanctions regime has further motivated China to make the yuan a more international currency.¹⁴⁶ Efforts by the United States and the European Union to cut Iran off from the SWIFT banking system¹⁴⁷ have also resulted in China’s creation of its own bank messaging system—the Cross-border Interbank Payment System (“CIPS”)—which allows international transfers of the yuan without having to rely on SWIFT.¹⁴⁸

<http://www.reuters.com/article/us-usa-iran-sanctions-india-exclusive/exclusive-amid-rising-trade-tensions-with-u-s-india-wants-to-extend-iran-oil-sanctions-waiver-sources-idUSKCN1QO0TAidUKBRE9AS0Q420131129> [<http://perma.cc/SQ7J-G4JT>]; *U.S. Grants China Six-Month Iran Oil Sanctions Reprieve*, BBC NEWS (June 29, 2012), <http://www.bbc.com/news/world-asia-china-18639255> [<http://perma.cc/67M9-XLDQ>].

¹⁴³ Gladstone, *supra* note 142.

¹⁴⁴ See Rotblat, *supra* note 124, at 312–13. The five permanent members of the United Nations Security Council are the United States, the United Kingdom, France, Russia, and China. See *id.* at 319.

¹⁴⁵ *Id.* at 313.

¹⁴⁶ ARTHUR KROEBER, CHINA’S GLOBAL CURRENCY: LEVER FOR FINANCIAL REFORM 7–9, 19 (Brookings-Tsinghua Ctr. for Pub. Pol’y 2013), <http://www.brookings.edu/wpcontent/uploads/2016/06/china-global-currency-financial-reform-kroeber.pdf>.

¹⁴⁷ The Society for Worldwide Interbank Financial Telecommunication (SWIFT) provides a global network for sending standardized messages between financial institutions in more than 200 countries and territories for making payments or settling trades. See *Swift History*, SWIFT, <http://www.swift.com/about-us/history> [<http://perma.cc/5VYN-DW29>] (last visited Feb. 13, 2023).

¹⁴⁸ See Barry Eichengreen, *Sanctions, SWIFT, and China’s Cross-Border Interbank Payments System*, CSIS (May 20, 2022), <http://www.csis.org/analysis/sanctions-swift-and-chinas-cross-border-interbank-payments-system> [<http://perma.cc/B7KA-GQC8>]; Gabriel Wildau, *China Launch of Renminbi Payments System Reflects Swift Spying Concerns*, FIN. TIMES (Oct. 8, 2015), <http://www.ft.com/content/84241292-66a1-11e5-a155-02b6f8af6a62>

Its Iran experience has hastened China's efforts to escape from the dollar's grip through the internationalization of its own currency, the yuan. Russia, China's largest oil supplier, along with Angola, China's third-largest oil supplier, already accepted yuan for payment; Venezuela, another large oil producer, has been in the yuan sphere since 2017.¹⁴⁹ China is negotiating with Saudi Arabia to pay for its oil in yuan, a move that could put a real dent in longstanding U.S.-Saudi understanding that oil is to be paid in dollars.¹⁵⁰ When President Trump withdrew the United States from the Iran nuclear deal, the door opened for China to use its leverage as the world's largest importer of crude oil to demand that Iranian oil exported to China be priced in yuan instead of dollars.¹⁵¹

Because oil is the most traded commodity in the world, even shifting a portion of the global oil trade from dollar to yuan is significant. In March 2018, China launched a "crude futures exchange that could become a yuan-denominated benchmark,"¹⁵² providing a platform for the first RMB-denominated futures contracts that foreigners can buy and sell directly¹⁵³ and overtaking even oil futures in Singapore and Dubai.¹⁵⁴

The "launch of the futures contract means that countries selling oil to China will be accumulating billions of Chinese yuan

[<http://perma.cc/5GUL-6MU9>]; *Russia May Use China's Payment Infrastructure Instead of SWIFT—VTB Bank Head*, TASS (Mar. 11, 2015), <http://tass.com/economy/782054> [<http://perma.cc/AVL3-4LAK>].

¹⁴⁹ See Mathews & Selden, *supra* note 74, at 22.

¹⁵⁰ See George Glover, *China Wants to Buy More Oil from Saudi Arabia*, MKT. INSIDERS (Dec. 9, 2022), <http://markets.businessinsider.com/news/commodities/dollar-dominance-dedollarization-china-saudi-arabia-oil-deal-crude-price-2022-12> [<http://perma.cc/TT4K-UBZA>].

¹⁵¹ See Duguid, *supra* note 137. For China, "[p]ricing imports in yuan would therefore spare China the cost of exchanging dollars, and would increase the use of the renminbi in global financial trade, which could ultimately hurt the dollar's international clout." See *id.*

¹⁵² See *id.*; accord Sri Jegarajah, *China Has Grand Ambitions to Dethrone the Dollar*, CNBC (Oct. 24, 2017), <http://www.cnbc.com/2017/10/24/petro-yuan-china-wants-to-dethrone-dollar-rmb-denominated-oil-contracts.html> [<http://perma.cc/R9VA-GQGZ>]. An oil futures contract is a contract for a future delivery of oil at a specified price, allowing the parties involved to hedge against possible price fluctuations in the future and thus provide market stability.

¹⁵³ See David Dollar & Samantha Gross, *China's Currency Displacing the Dollar in Global Oil Trade? Don't Count on It*, BROOKINGS (Apr. 19, 2018), <http://www.brookings.edu/blog/order-from-chaos/2018/04/19/chinas-currency-displacing-the-dollar-in-global-oil-trade-dont-count-on-it/> [<http://perma.cc/SF74-MZSB>].

China surpassed the United States to become the world's largest importer of crude oil in 2017, a clear motivation for creating a mechanism to price oil in RMB. Additionally, adding a benchmark that reflects the types of oil needed by Chinese refineries poses a clear business purpose. China's long-term goal is to increase the use of China's currency in global trade, not just in oil.

Id.

¹⁵⁴ See Mathews & Selden, *supra* note 74, at 1.

which they will then be looking to recycle back to China through purchases of Chinese goods and technologies or purchases of Chinese government bonds, thus strengthening the yuan as an international reserve currency.”¹⁵⁵ In other words, China is modeling itself after the United States, following in its footsteps, imitating the route taken by the latter in its quest to dollarize the international economy. As is the case with the recycling of petrodollars when oil is denominated in dollars, as China increasingly pays for its oil imports in its own currency, foreign suppliers will accumulate more yuan and will need to have more yuan-denominated accounts which they will use to buy Chinese goods and services, in the process bolstering Chinese capital markets and yuan internationalization.

Yuan-denominated trade is designed not necessarily to overthrow the dollar per se. For now, it is meant more “to promote not only Chinese economic growth and financial clout but also its geopolitical influence and soft power while serving as a means for countries to evade US sanctions.”¹⁵⁶

The same story is being played out in sanctions against Russia for its invasion of Ukraine on February 24, 2022.¹⁵⁷ The United States and its allies launched sanctions against Russia using, predictably, its dollar arsenal by restricting Russian payments in U.S. dollars and euros.¹⁵⁸ Some of the actions taken included freezing the assets of key Russian oligarchs; removing select Russian banks from the SWIFT messaging system to “ensure that these banks are disconnected from the international financial system;”¹⁵⁹ barring Russia from using the \$600 million it has in U.S. banks, restricting Russian ability to repay its international loans.¹⁶⁰ This was meant to ban Russia from making debt repayments owed to U.S. bondholders in order to push Russia into

¹⁵⁵ *See id.* at 5.

¹⁵⁶ *See id.* at 8.

¹⁵⁷ *See* Vladimir Putin, President of Russia, Address by the President of the Russian Federation (Feb. 24, 2022), <http://en.kremlin.ru/events/president/news/67843> [<http://perma.cc/XP9Q-QX3R>].

¹⁵⁸ European Commission, *Joint Statement on Further Restrictive Economic Measures*, EU (Feb. 26, 2022), http://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_22_1423 [<http://perma.cc/9JQC-H77X>].

¹⁵⁹ *Id.* This resulted in significant payment delays to the country for oil and gas exports. *See What Are the Sanctions on Russia and Are They Hurting Its Economy*, BBC (June 27, 2022), <http://www.bbc.com/news/world-europe-60125659> [<http://perma.cc/88B6-YRBP>]; *see also Sanctions Have Frozen Around \$300 Bln of Russian Reserves, FinMin Says*, REUTERS (Mar. 13, 2022, 4:30 AM), <http://www.reuters.com/article/ukraine-crisis-russia-reserves-idUSL5N2VG0BU> [<http://perma.cc/ZE2U-PX8B>].

¹⁶⁰ *What Are the Sanctions on Russia and Are They Hurting Its Economy?*, *supra* note 159.

default.¹⁶¹ Most significantly, Russia's central bank was blocked from accessing the \$630 billion (£470 billion) of reserves it has in foreign currencies.¹⁶² This amount is double what Russia had in its foreign currency reserve since its last invasion of Ukraine and annexation of Crimea in 2014.¹⁶³ This vast amount of reserve was viewed as "a war chest that would enable Russia to continue to buy things that could only be bought in foreign currency, even if customers overseas refused to trade with it and supply it with that currency. It was Russia's insurance policy."¹⁶⁴ Unfortunately for Russia, with most of it kept in banks in the West, Putin probably assumed that the international "financial system wouldn't be turned off – not to a nation of Russia's size."¹⁶⁵

Despite the fact that Russia had taken steps since its 2014 annexation of Crimea to decrease its holdings of dollar assets from its reserves by shifting to gold and other hard currencies, it is nonetheless undeniable that freezing its reserves "has undermined its ability to stabilize the ruble and recapitalize its sanctioned banks as they face the risk of bank runs."¹⁶⁶ As a result, the ruble has depreciated by 40% and without access to foreign currency to support it, the Russian central bank had no choice but to double its key interest rate from 9.5% to 20%.¹⁶⁷ Given severe hard currency shortages, Russia blocked hard currency outflow,

¹⁶¹ See Jeff Stein, *U.S. Pushes Russia Toward Default by Blocking Debt Payments*, WASH. POST (May 24, 2022), <http://www.washingtonpost.com/us-policy/2022/05/24/treasury-russia-debt-default/> [<http://perma.cc/NU3N-ZPGC>].

¹⁶² See sources cited *supra* note 159; Peter Martin, *Putin's Biggest Mistake of the Ukraine War? Trusting the Western Financial System*, THE CONVERSATION (Mar. 7, 2022), <http://theconversation.com/putins-biggest-mistake-of-the-ukraine-wartrusting-the-western-financial-system-178635> [<http://perma.cc/RX2T-TRSD>] ("And, much less expected, it froze the reserves of Russia's central bank stored in France, Germany, Italy, the United Kingdom, Canada, and the US – the hundreds of billions of savings legitimately placed in foreign banks for safekeeping.").

¹⁶³ Martin, *supra* note 162.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

¹⁶⁶ Douglas W. Arner, Ross P. Buckley, Anton N. Didenko & Dirk A. Zetzsche, *Ukraine, Sanctions and Central Bank Digital Currencies: The Weaponization of Digital Finance and the End of Global Monetary Hegemony?*, 7 ASIAGLOBAL PAPERS 1, 43 (Jan. 2023); see also Nicholas Gordon, *Banks Are Stopping Putin from Tapping a \$630 Billion War Chest Russia Stockpiled Before Invading Ukraine*, FORTUNE (Mar. 2, 2022), <http://www.yahoo.com/video/banks-stopping-putin-tapping-630-070824734.html> [<http://perma.cc/5JSD-A6L7>].

¹⁶⁷ See Martin, *supra* note 162; Barbara Kollmeyer, *Russian Central Bank Lifts Interest Rates to 20% as Ruble Plunges Over Western Sanctions*, MARKETWATCH (Feb. 28, 2022), <http://www.marketwatch.com/story/russian-central-bank-lifts-interest-rates-to-20-as-ruble-plunges-over-western-sanctions-11646033022> [<http://perma.cc/PW3Z-H658>] ("An increase in the key rate will make it possible to ensure an increase in deposit rates to the levels necessary to compensate for the increased devaluation and inflation risks. This will help maintain financial and price stability and protect citizens' savings from depreciation.").

stopped servicing government debt owed to foreigners, and required Russian companies earning dollars to sell 80% of dollar earnings to the government in exchange for rubles.¹⁶⁸

As has been observed, sanctions against the Russian central bank likely “broke the bond of trust that makes a bank a bank. And while effective – Russia can’t get access to hundreds of billions of foreign dollars it has painstakingly built up to buy supplies and support the ruble on currency markets – it can only be done at this scale once.”¹⁶⁹ This is because a country like China will have taken note and will be taking actions to insulate itself as much as possible from being the next Russia or the next Iran. Given the track record of how the dollar has been used as a weapon, “anyone who keeps money in dollars [or euros, pounds, yen etc.] today can no longer be sure that the US [and the EU] will not steal their money.”¹⁷⁰

Indeed, as Russia’s war against Ukraine has dragged on, many European governments, including those of Poland, Lithuania, Latvia, and Slovakia have called for the seizure (not just freezing) of Russia’s currency reserves.¹⁷¹ There is debate within the U.S. government itself as to the legality of seizure, with Secretary of the Treasury Janet Yellen stating it would be illegal while others disagreed.¹⁷²

The decision to freeze the central bank’s foreign currency reserve was in effect tantamount to a decision “declaring financial war on Russia. . . . This is a very new kind of war—the weaponisation of the US dollar and other western currencies to punish their adversaries.”¹⁷³

¹⁶⁸ See Martin, *supra* note 162; Anna Hirtenstein, *Putin Imposes Capital Controls Including Restrictions on External Debt Payments*, WALL ST. J. (Feb. 28, 2022), <http://www.wsj.com/livecoverage/russia-ukraine-latest-news-2022-02-28/card/Kedzfom80kQt11B7xaRs> [<http://perma.cc/472X-Z7J2>].

¹⁶⁹ Martin, *supra* note 162.

¹⁷⁰ Arney et al., *supra* note 166, at 45.

¹⁷¹ Sam Fleming, James Shotter & Amy Kazmin, *EU Debates Tapping Sanctions—Hit Russian Assets to Pay for Rebuilding Ukraine*, FIN. TIMES (Apr. 26, 2022), <http://www.ft.com/content/91ffdd88-fa02-4ae2-931d-f47f042e9ed4> [<http://perma.cc/5G6P-VJN7>]; Sam Fleming, *EU Should Seize Russian Reserves to Rebuild Ukraine, Top Diplomat Says*, FIN. TIMES (May 8, 2022), <http://www.ft.com/content/82b0444f-889a-4f3d-8dbc-1d04162807f3> [<http://perma.cc/2LM9-JWTQ>].

¹⁷² See David Lawder, *Yellen: Not Legal for U.S. to Seize Russian Official Assets*, REUTERS (May 19, 2022), <http://www.reuters.com/world/yellen-not-legal-us-government-seize-russian-central-bank-assets-2022-05-18/> [<http://perma.cc/ACA7-VR88>]; Robert Litan, *Russia Can Be Made to Pay for Ukraine Damage Now*, BLOOMBERG (Mar. 16, 2022), <http://www.bloomberg.com/opinion/articles/2022-03-16/russia-can-be-made-to-pay-for-ukraine-damage-now?leadSource=verify%20wall> [<http://perma.cc/A2JA-ET8F>].

¹⁷³ Pop et al., *supra* note 116.

The Iranian model is being applied more or less against Russia, but the key difference is that it is the first time the dollar “weapon has been used against a major economy and the first time as part of a war.”¹⁷⁴ Although the dollar has been used as a financial weapon, it has been limited to specific objectives like blocking terrorists from accessing dollars or blocking Iran’s nuclear program.¹⁷⁵ In fact, it is the first time freezing currency reserves has been done to a G20 country and a member of the United Nations Security Council.¹⁷⁶

As President Joe Biden said, “These economic sanctions are a new kind of economic statecraft with the power to inflict damage that rivals military might.”¹⁷⁷ Moreover, because of allied unity against Russian aggression and because of the prior Iran experience, within seventy-two hours of intensive diplomacy, a plan was put together to not only sanction Russia’s central bank but also to do so in a way that would preempt any possible Russian countermeasures.¹⁷⁸ The allies ensured that Moscow would be unaware and caught “off-guard” so that it could not convert some of its reserves into other currencies.¹⁷⁹ According to U.S. Deputy Secretary of Treasury Wally Adeyemo, “We were in a place where we knew they really couldn’t find another convertible currency that they could use and try to subvert this.”¹⁸⁰ As observers noted, “[b]y all accounts, Russian officials were stunned at the speed at which they were frozen — a very different reaction from the one it faced after annexing

¹⁷⁴ *Id.*; see Laurence H. Tribe & Jeremy Lewin, *\$100 Billion. Russia’s Treasure in the U.S. Should Be Turned Against Putin.*, N.Y. TIMES (Apr. 15, 2022), <http://www.nytimes.com/2022/04/15/opinion/russia-war-currency-reserves.html> [<http://perma.cc/SGS2-AARQ>]; see generally Minami Funakoshi, Hugh Lawson & Kannaki Deka, *Tracking Sanctions Against Russia*, REUTERS (Mar. 9, 2022), <http://www.reuters.com/graphics/UKRAINE-CRISIS/SANCTIONS/byvrjenzmve/> [<http://perma.cc/2NED-9GXE>].

¹⁷⁵ See Robin Wigglesworth, Polina Ivanova & Colby Smith, *Financial Warfare: Will There Be a Backlash Against the Dollar?*, FIN. TIMES (Apr. 6, 2022), <http://www.ft.com/content/220db8f2-2980-410f-aab8-f471369ac3cf> [<http://perma.cc/NZ4K-DTM5>].

¹⁷⁶ Martin, *supra* note 162. As Barry Eichengreen observed, “It’s a huge deal. Freezing the assets of the Russian central bank certainly came as a surprise to me, and it would appear to Putin as well . . . These issues have always come up in the past whenever the words ‘weaponise’ and ‘dollar’ are spoken. The worry is always that this will work to the disfavour of US banks, and you go some way towards eroding the dollar’s exorbitant privilege.” Wigglesworth et al., *supra* note 175.

¹⁷⁷ Pop et al., *supra* note 116.

¹⁷⁸ *Id.*

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

Crimea in 2014, when it took a year for weak sanctions to be imposed.”¹⁸¹

Yu Yongding, a leading economist at the Chinese Academy of Social Sciences and former adviser to China’s central bank, warned that such actions had “fundamentally undermined national credibility in the international monetary system. What contracts and agreements can’t be dishonoured in international financial activities if foreign central banks’ assets can be frozen.”¹⁸² These sanctions have been called “earth shattering. They’ve broken the mould.”¹⁸³ Professor Mitu Gulati argued that “[i]f you change the rules for Russia, you’re changing the rules for the whole world Once these rules change, they change international finance forever.”¹⁸⁴

II. DIGITAL CURRENCY

Using power and leverage to freeze another country’s foreign currency reserves can destabilize:

the credibility of the existing international monetary and payments systems . . . while emphasizing the power of digital finance. This system is founded on the trust that states can safely store their savings with foreign banks and central banks and these funds will not be frozen or expropriated in circumstances such as these.”¹⁸⁵

Even Russia seemed to have shared such assumptions.¹⁸⁶ A breach of this trust has long-term consequences for a rule-based system.¹⁸⁷ In fact, some have argued that even freezing (not going so far as seizing) put the system at risk.¹⁸⁸

¹⁸¹ Alan Rappeport & David E. Sanger, *Seizing Russian Assets to Help Ukraine Sets Off White House Debate*, N.Y. TIMES (May 31, 2022), <http://www.nytimes.com/2022/05/31/us/politics/russia-sanctions-central-bank-assets.html> [<http://perma.cc/2RM8-8NP3>].

¹⁸² Wigglesworth et al., *supra* note 175.

¹⁸³ *Id.*

¹⁸⁴ *Id.* Even allies like the EU are looking for ways to reduce reliance on the dollar; the EU announced its intention “to reduce its reliance on the dollar for commodity pricing and other contracts.” Matthew Oresman, *Bypassing the Buck*, THE WORLD TODAY 22 (Aug. & Sept. 2020), <http://www.pillsburylaw.com/images/content/1/4/v2/141914/Chatham-House-MO-310720.pdf> [<http://perma.cc/F8BK-NBS9>]; see also Jim Brunsten, Sam Fleming, & Philip Stafford, *EU Sets Out Plans to Curb Reliance on Dollar in Post-Trump Era*, FIN. TIMES (Jan. 16, 2021), <http://www.ft.com/content/20f39e33-e360-479e-82e2-5441d24f0e0b> [<http://perma.cc/2GD8-4JBS>] (describing EU efforts to “find energy alternatives to crude oil, where the main benchmarks such as Brent and WTI are tied to the dollar”).

¹⁸⁵ Arney et al., *supra* note 166, at 44.

¹⁸⁶ See Martin, *supra* note 162.

¹⁸⁷ See Joshua Kirschenbaum & Nicolas Véron, *Now is Not the Time to Confiscate Russia’s Central Bank Reserves*, BRUEGEL (May 16, 2022), <http://www.bruegel.org/blog-post/now-not-time-confiscate-russias-central-bank-reserves> [<http://perma.cc/P28Q-JMRU>].

¹⁸⁸ *Id.*

While Western allies have rallied around using the financial system to sanction Russia, many other countries have refused to participate. South Africa, Brazil, and even Mexico have refused to “take sides,” opting instead for a “neutral” approach.¹⁸⁹ There is no global alliance, in other words, only a Western-led coalition. China, in particular, has refused to join the chorus of criticism.¹⁹⁰ Thus by launching the dollar as a weapon, “the US and its allies risk provoking a backlash that could undermine the US currency and sunder the global financial system into rival blocks that could leave everyone worse off.”¹⁹¹ As Zoltan Pozsar, an analyst at Credit Suisse said, “[w]ars also upend the dominance of currencies and serve as a doula to the birth of new monetary systems.”¹⁹²

Russia’s foreign minister considers Western freezing of its central bank reserves theft.¹⁹³ And Larry Fink, the ten trillion asset manager of Black Rock, wrote in his annual letter to shareholders that the Russian invasion of Ukraine had significant unintended consequences, such as unleashing the beginning of the end of globalization as well as the adoption of digital currencies because cryptos can function both as a safe asset as well as a sanction circumvention device.¹⁹⁴ Indeed, after the invasion and the imposition of sanctions, the price of bitcoin and other cryptos jumped, spurred by the assumption that cryptos could be used to evade sanctions.¹⁹⁵ As stated, digital currencies is an area where China has had a head start. The next section explores the Chinese digital currency experiment.

A. China and the Digital Yuan

In the last twenty years, the domination of the dollar has remained relatively stable although there have been significant challenges, such as increased European integration, the rapid growth of China, and the acceleration of yuan

¹⁸⁹ Wigglesworth et al., *supra* note 175.

¹⁹⁰ *See id.*

¹⁹¹ *Id.*

¹⁹² *Id.*

¹⁹³ *Id.*

¹⁹⁴ *See* Tanaya Macheel, *BlackRock’s Fink Says Russia-Ukraine War Could Accelerate Use of Cryptocurrencies*, CNBC (Mar. 24, 2022), <http://www.cnbc.com/2022/03/24/blackrocks-fink-says-russia-ukraine-war-could-accelerate-use-of-cryptocurrencies.html#:~:text=Russia’s%20invasion%20of%20Ukraine%20could,annual%20letter%20to%20shareholders%20Thurs%20day> [<http://perma.cc/4L4P-LM22>].

¹⁹⁵ *See* Tanaya Macheel & Arjun Kharpal, *Bitcoin Jumps as Russia Ukraine Conflict Continues and U.S. Imposes Further Sanctions*, CNBC (Mar. 1, 2022), <http://www.cnbc.com/2022/03/01/bitcoin-btc-price-jumps-as-russia-ukraine-conflict-continues.html> [<http://perma.cc/X3SE-SHMP>].

internationalization.¹⁹⁶ And although digital money like Bitcoin has produced all kinds of distributed ledger technology (“DLT”), it has not been viewed as a credible challenger to the dollar or other hard currencies because it is not widely used as a medium of exchange, a means of payment, or a store of value.¹⁹⁷

In 2019, however, Facebook’s own proposed cryptocurrency, Libra, became a force to contend with, not necessarily because of any new technological innovation but rather because of its potential global reach, given the fact that one-third of the world’s population regularly uses Facebook and would find useful and convenient the range of payment systems offered, such as FacebookPay, WhatsAppPay, and Instagram Pay.¹⁹⁸ As an alternative payment system that is private, Libra would nonetheless be backed by a basket of major currencies, potentially disrupting existing payment systems and jeopardizing global and regional stability.¹⁹⁹ Its potential scope and reach meant that it posed a real threat to monetary sovereignty—too big to ignore.²⁰⁰

Governments responded by jumpstarting their own CBDCs.²⁰¹ The highest profile announcement came from the CBOC, which launched the digital yuan in late 2019,²⁰² prompting scholars to declare “that China’s digital yuan, if – or when – available offshore and on a wholesale (and not just retail) basis, will prove to be a powerful disruption” in the international monetary system.²⁰³

Despite reports to the contrary, China does not oppose cryptocurrencies, only private ones, purportedly because of privacy and fraud concerns.²⁰⁴ In fact, China has pursued its plan to develop block-chain based digital yuan as early as 2014.²⁰⁵ As this section demonstrates, China’s plan to create a central digital yuan is akin to its prior experiments in marketization and privatization.

¹⁹⁶ See Carol Bertaut, Bastian von Beschwitz & Stephanie Curcuru, *The International Role of the U.S. Dollar*, BD. OF GOVERNORS OF THE FED. RESRV. SYS. (Oct. 6, 2021), <http://www.federalreserve.gov/econres/notes/feds-notes/the-international-role-of-the-u-s-dollar-20211006.html> [<http://perma.cc/XP7G-DMRY>].

¹⁹⁷ Arney et al., *supra* note 166, at 19.

¹⁹⁸ *Id.*

¹⁹⁹ *See id.*

²⁰⁰ *See id.*

²⁰¹ See Arjun Kharpal, *In a World Where Central Banks Issue Digital Currencies, Bitcoin and Libra May Find a Place*, CNBC (Aug. 19, 2020), <http://www.cnbc.com/2020/08/20/central-bank-digital-currencies-bitcoin-libra-could-play-a-role.html> [<http://perma.cc/LFN9-ZPQH>].

²⁰² Arney et al., *supra* note 166, at 23–24.

²⁰³ *Id.* at 24.

²⁰⁴ Wan, *supra* note 5.

²⁰⁵ *See id.* at 2.

That is, both experiments, despite their names, were conducted in a way meant not to promote but to co-opt the market and the private sector, and in the process, to preserve, if not further solidify, the power of the state.

China, in other words, is following a similar trajectory to the two major ones in prior years. In 1978, in an effort to introduce markets without antagonizing Party hard-liners, Deng Xiao Ping devised an “open door” policy, allowing market activities to exist and thrive in the non-state sector without dismantling or undermining the state sector.²⁰⁶ Deng called this “socialism with Chinese characteristics.”²⁰⁷ In the 1990s, when the Soviet Union collapsed and former Soviet bloc countries began to transition from centrally planned to market economies, China took a different, albeit familiar, path—“privatization with Chinese characteristics.”²⁰⁸ In brief, instead of privatizing state owned enterprises as was being done in countries in Eastern Europe and the former Soviet Union (and hence risk losing state control over the economy), the Chinese government established and used the stock market to induce private Chinese citizens with surplus but private capital kept outside banks and state purview to invest in Chinese companies that were majority owned by the state.²⁰⁹ In essence, this meant that “privatization” was being pursued to bring private capital under state control, as private capital was being used to buy minority shares in state-owned enterprises.²¹⁰

As this Article will demonstrate, China’s digital yuan project is following the same trajectory the government took with respect to prior market reforms, to further state control and remove the potential threats the government believes underlie private cryptocurrencies. In addition, the project packs an additional wallop—challenging the U.S. dollar and particularly its extraterritorial and unilateral use by the U.S. government to punish other states for behaviors the United States wishes to sanction.

The PBOC’s investment in a digital yuan is to be distinguished from digital money that is already widespread in parts of China. In cities like Beijing, few transactions are effectuated through traditional mechanisms such as cash, check, or credit card, as they have been supplanted by digital payment systems devised by Alibaba and Tencent, two of China’s most

²⁰⁶ Cao, *supra* note 37, at 109.

²⁰⁷ *Id.* at 100.

²⁰⁸ *See id.* at 98, 100.

²⁰⁹ *See id.* at 98–100.

²¹⁰ *See id.* at 152.

powerful tech companies.²¹¹ Although “highly advanced digital payment systems like Alipay and WeChat have created a cashless and cardless economy . . . built upon a network of commercial bank accounts, operating at the M2 level of money supply,”²¹² a digital yuan would transform the monetary system in a wholly different way. The digital yuan “is mainly a substitute for cash in circulation (M0), and will coexist with physical RMB.”²¹³

The PBOC itself describes the difference the following way: although the digital yuan and existing electronic payment systems are “on different dimensions,” they are also designed to “complement each other.”²¹⁴ The digital yuan is the equivalent of M0 and mainly functions as retail payment, supplementing existing electronic payment systems.²¹⁵ However, there are significant differences between the two systems. According to the PBOC, the digital yuan, being China’s legal tender, is the safest asset; it can be transferred without the need to have bank accounts or online access; and it “supports managed anonymity, which helps protect privacy and user information.”²¹⁶

The PBOC uses what it calls “a centralized management model and a two-tier operational system”²¹⁷ in the digital yuan universe. This is also referred to as “one CBDC, two databases, and three centers.”²¹⁸ One CBDC refers to the digital yuan issued by the PBOC.²¹⁹ Two databases refer to China’s use of a two-tiered system in which the government issues digital currency to

²¹¹ See Niall Ferguson, *Bet Your Bottom Dollar, the Future of Currency is Digital*, THE GLOBE & MAIL (Sept. 20, 2019), <http://www.theglobeandmail.com/opinion/article-bet-your-bottom-dollar-the-future-of-currency-is-digital/> [<http://perma.cc/7RUY-34RK>].

²¹² Wan, *supra* note 5.

²¹³ See WORKING GRP. ON E-CNY RSCH. & DEV. OF THE PEOPLE’S BANK OF CHINA, PROGRESS OF RESEARCH & DEVELOPMENT OF E-CNY IN CHINA 3 (2021) [hereinafter PEOPLE’S BANK OF CHINA], <http://www.pbc.gov.cn/en/3688110/3688172/4157443/4293696/2021071614584691871.pdf> [<http://perma.cc/Y5JX-7R5K>].

²¹⁴ See *id.* at 5.

²¹⁵ See *id.* The PBOC also states the following: “The e-CNY is a substitute for M0. Thus, it is treated the same as the physical RMB under M0, which carries and pays no interest.” *Id.* at 7.

²¹⁶ See *id.* at 5.

²¹⁷ See *id.* at 3. In a one-tier system, the central bank itself would directly issue and circulate and maintain digital services to the public; contrastingly, in a two tier system—which is what China has—the central bank issues digital currency to authorized operators who then are responsible for exchange and circulation. See *id.* at 8. The central bank selects commercial banks which in turn “open different types of digital wallets for customers based on the strength of customer personal information identification, and provide e-CNY exchange services.” See *id.* at 8.

²¹⁸ Aysan & Kayani, *supra* note 43, at 5.

²¹⁹ See *id.*

commercial banks, which then issue it to the public.²²⁰ The three centers refer first to the registration process in which the government “manages the data and identity of each customer.”²²¹ The second “maintains records on the amount of digital currency owned by a private entity and documents its transaction history.”²²² Finally, the third is more of the analytical center, in that it “evaluates and analyzes the purpose of the transactions and stores of money, as all kinds of surveillance are employed.”²²³

The PBOC opted against a single use system in which it would disburse DCEPs directly to consumers because while it does want to harness and leverage the private payment system, it does not want to kill it by disintermediating the banking system.²²⁴ The PBOC’s plan is instead to issue digital yuans to authorized operators—commercial banks—and manage the digital yuan while the authorized operators are empowered with exchanging and circulating it to the public.²²⁵ In other words, a digital yuan “would be integrated into M0, thus restoring control and influence to the PBOC.”²²⁶ The state is cleverly planning to use commercial firms, perhaps piggybacking on the technological innovations they have forged, to accomplish its objective. As the Vice President of PBOC Fan Yifei put it in a public interview, “With the help of technology innovation, we can gradually transit into issuance and circulation of digital RMB and impose effective supervision of the private sector.”²²⁷ Ultimately, it is not surprising that the government’s preference for a bifurcated monetary structure is most likely rooted in its emphasis on controlling as well as benefitting from the crucial financial system, particularly the private sector.²²⁸

As it is issued by the CBDC, though operated by approved commercial banks, the digital yuan is not a private decentralized currency nor does it operate on the blockchain.²²⁹ The digital yuan

²²⁰ See *id.*

²²¹ See *id.*

²²² See *id.*

²²³ See *id.*

²²⁴ See FANUSIE & JIN, *supra* note 6, at 8.

²²⁵ See PEOPLE’S BANK OF CHINA, *supra* note 213, at 3.

²²⁶ See Wan, *supra* note 5.

²²⁷ See *id.*; see also Fan Yifei, *On Digital Currencies, Central Bank Should Lead*, BLOOMBERG (Sept. 1, 2016, 2:00 PM), <http://www.bloomberg.com/opinion/articles/2016-09-01/on-digital-currencies-central-banks-should-lead?leadSource=uverify%20wall> [<http://perma.cc/3CAX-FJKB>].

²²⁸ See FANUSIE & JIN, *supra* note 6, at 8.

²²⁹ See Huld, *supra* note 22. Approved banks are ICBC, Agricultural Bank of China, Bank of China, China Construction Bank, Bank of Communications, Postal Savings Bank of China, and China Merchant’s Bank. In addition, there are two online banks: WeBank (WeChat Pay) and MyBank (Alipay). See *id.*

is its own creature. “Unlike Bitcoin and other cryptocurrencies, e-CNY does not operate through a blockchain-based decentralized ledger; rather, it is a centralized operation, issued and supervised by the PBOC. At this technical level, the e-CNY is not fundamentally different from other online digital payment options in China such as AliPay and WeChat.”²³⁰ But the digital yuan, unlike private electronic payment systems like AliPay or WeChat, “has all the basic functions of money, i.e., unit of account, medium of exchange and store of value. . . . [and] is the central bank’s liabilities to the public. Backed by sovereign credit, e-CNY has the status of legal tender.”²³¹

Users can access the digital yuan from an online wallet accessible through the digital yuan app with the ability to “set up multiple digital wallets on the app and set parameters, such as daily spend limits and the apps and services that can be paid for with the wallet, and link different bank cards.”²³² There are different categories of digital wallets per transaction or daily limits assigned by authorized operators based on the strength of customers’ personal information, with anonymity available for certain accounts deemed the least privileged.²³³ There are also personal and corporate wallets, as well as parent and sub-wallets.²³⁴ During the trial stage, users can withdraw digital yuan from their ATMs directly to their smartphones’ e-wallets, then pay simply by holding the smartphone app close to the electronic point-of-sale device.²³⁵

Mu Changchun, head of the central bank’s Digital Currency Research Institute, admitted that despite an official policy of so-called privacy protections and “controlled anonymity,”

²³⁰ See Lorand Laskai, *Let’s Start with What China’s Digital Currency is Not*, STANFORD UNIV. (Mar. 8, 2022), <http://digichina.stanford.edu/work/lets-start-with-what-chinas-digital-currency-is-not/> [<http://perma.cc/KP9Y-9Q4R>]; see also Barclay Bram, *China’s Digital Yuan is a Warning to the World*, WIRED (Aug. 23, 2021, 6:00 AM), <http://www.wired.co.uk/article/digital-yuan-china-bitcoin-libra> [<http://perma.cc/D7RK-QHN5>].

More than 88 of CBDC projects, at pilot or production phase, use blockchain as the underlying technology. However, unlike cryptocurrencies which use blockchain as a way of maintaining anonymity and decentralisation in the system, CBDCs rely on a centralised ledger. This means that Central Banks are able to access an incredibly rich seam of data about the financial transactions of their populations – data that otherwise would not be captured by existing systems or would require going through intricate proxies.

Id.

²³¹ See PEOPLE’S BANK OF CHINA, *supra* note 213, at 3.

²³² See Huld, *supra* note 22.

²³³ See PEOPLE’S BANK OF CHINA, *supra* note 213, at 9.

²³⁴ See *id.*

²³⁵ See Kynge & Yu, *supra* note 1.

there is ambiguity in terms of how much anonymity can be allowed.²³⁶ “We know the demand from the general public is to keep anonymity by using paper money and coins . . . we will give those people who demand it anonymity in their transactions,” Mu stated, “[b]ut at the same time, we will keep the balance between the ‘controllable anonymity’ and anti-money laundering, CTF [counter-terrorist financing], and also tax issues, online gambling and any electronic criminal activities.”²³⁷

Interestingly, despite the possibility that the government can easily pierce anonymity based on professed concerns like money laundering or criminal activities, the PBOC emphasizes that there are plenty of privacy guarantees, even if those need to be balanced against security issues.²³⁸ In one of its reports, the PBOC highlights the “variety of technologies, including digital certificate system, digital signature, and encrypted storage to make double-spending, illegal duplication and counterfeit, transaction falsification, and repudiation unfeasible.”²³⁹

Given the need to juggle both privacy and security concerns, the PBOC calls its agenda “managed anonymity”—that is, “anonymity for small value and traceable for high value”²⁴⁰ ostensibly to protect “personal information and privacy”²⁴¹ while also guarding against large risks involved in “illegal and criminal activities, such as tele-fraud, Internet gambling, money laundering, and tax evasion by making sure that transactions comply with AML/CFT requirements [(anti-money laundering/combating the financing of terrorism)].”²⁴² According to the PBOC, the digital yuan will be protected by a firewall, shielding e-CNY information in accordance with strict security and privacy standards.²⁴³ The government claims, through Mu Changchun—director of the central bank’s Digital Currency Research Institute—that the digital yuan will have the “highest level of privacy protection” and that the central bank would have no direct knowledge of users’ identity unless it had suspicion of illegal activities.²⁴⁴

²³⁶ *See id.*

²³⁷ *Id.*

²³⁸ The PBOC touts the institutional design of the digital one as one that promotes security against terrorism and money laundering as well as privacy and data protection. *See* PEOPLE’S BANK OF CHINA, *supra* note 213, at 6.

²³⁹ *See* Huld, *supra* note 22.

²⁴⁰ *See* PEOPLE’S BANK OF CHINA, *supra* note 213, at 7.

²⁴¹ *Id.*

²⁴² *Id.*

²⁴³ *Id.*

²⁴⁴ *Digital Yuan Gives China a New Tool to Strike Back at Critics*, *supra* note 47.

In reality, however, by controlling the IT infrastructure and the cloud, the PBOC would be able to control “monetary issuance and ledger management.”²⁴⁵ The PBOC cloud would hold crucial information from the database it controls, allowing it to verify user identity and information, including users’ digital wallets.²⁴⁶ Hence, a digital yuan:

will not only make cash and coinage obsolete (which is already happening in China), but also make commercial banks and M2 easier to control. It means the PBOC can more effectively control and regulate an overextended debt market. Thanks to blockchain’s traceability and programmability, it will become much more difficult to hide banking products and services from balance sheets.²⁴⁷

The ability to accurately assess monetary policy like currency supply is likely to be accurate and swift because the government can control the rules of the game at the code level, dictating where digital money is allowed or not allowed to go towards.

For example, if the PBOC deems it necessary to cool down a hot housing market, it could simply write a program cutting off digital yuan from being used in the real estate sector.²⁴⁸ Private individuals can be placed under instant surveillance, as their spending history and debt/asset balance are all too evident which means the government can easily monitor not just ordinary use but also money laundering, tax evasion, and capital flight.²⁴⁹

This enhanced monitoring ability “dovetails with a government fintech plan issued in late 2019” in which it aimed to exploit FinTech’s trove “of financial data to promote the construction of a ‘nationwide integrated big data cent[er].’”²⁵⁰ Already, the government has gathered and leveraged its citizens’ data under various guises.²⁵¹ For example, under the State Council’s 2014 “Social Credit System,” through the use of blacklists, the government created a plan to inculcate the “construction of sincerity in government affairs, commercial sincerity, and judicial credibility.”²⁵² Through the judicial system, the government publishes names of people who have not paid fines or judgments against them; the list is shared with businesses and government

²⁴⁵ Wan, *supra* note 5.

²⁴⁶ *Id.*

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *Id.*

²⁵⁰ Kyngé & Yu, *supra* note 1 (quoting FANUSIE & JIN, *supra* note 6, at 11).

²⁵¹ Larson, *supra* note 48.

²⁵² *Id.*

institutions, which can lead to being blacklisted—resulting in an inability to get loans or promotions, book flights, or luxury hotels.²⁵³

This has been referred to as “data-driven governance,”²⁵⁴ and it is quite reasonable to believe that a centralized digital currency as that implemented by China can only result in further data concentration under government control. As Emily Jin of the Center for a New American Security observed:

If the central bank can successfully roll out the digital renminbi, it indeed would be a crucial tool for domestic control. . . . People could still try to circumvent the monitoring capability of [the currency], but I’d imagine that would be incredibly difficult given that the system would allow the central bank to track real-time transactions. . . . [Thus,] there will be no such thing as true anonymity for users.²⁵⁵

Indeed, the PBOC, “as the registrar and verifier of the digital currency[,] will likely be able to cut off access to DCEP funds in order to punish or coerce any user.”²⁵⁶

Even as the appeal of cryptocurrencies is built around freedom and uses the language of libertarianism, there is the creeping fear that a central bank digital currency issued by the PBOC will lead to even greater government control in China as it is a top-down design.²⁵⁷ This would complement already existing surveillance projects, like the so-called sharp eyes initiative, to install CCTVs all over public spaces; the so-called social credit system comprised of police records, financial, travel, political, medical, and online data used to create a trustworthiness rating which can affect whether someone can buy a plane ticket or attend university; and the state-mandated installation of Covid-19 health codes onto mobile phones to track someone’s risk of infection through a digital footprint.²⁵⁸ Digitalization “enables the central bank to track all transactions at the individual level in real time. Beijing aims to use this feature to combat money laundering, corruption and the financing of ‘terrorism’ at home by strengthening the already formidable surveillance powers of the ruling Communist party.”²⁵⁹

²⁵³ *Id.*

²⁵⁴ *Id.*

²⁵⁵ Kynge & Yu, *supra* note 1. The head of Asian business at one of the top Wall Street banks, who declined to be identified, warned, “[t]he digital renminbi will put every transaction on to the radar of the People’s Bank of China [central bank].” *Id.* Samantha Hoffman, senior analyst at the Australian Strategic Policy Institute, put it this way: “The [digital renminbi] is heavily about the party’s ability to exercise control” *Id.*

²⁵⁶ FANUSIE & JIN, *supra* note 6, at 11.

²⁵⁷ See Kynge and Yu, *supra* note 1.

²⁵⁸ See Orville Schell, *Technology Has Abetted China’s Surveillance State*, FIN. TIMES (Sept. 2, 2020), <http://www.ft.com/content/6b61aaaa-3325-44dc-8110-bf4a351185fb>.

²⁵⁹ Kynge and Yu, *supra* note 1.

The digital yuan is also the government's response to the challenge posed by the increasing power of China's domestic private sector, especially in the domestic e-payment system in which Tencent and Antgroup are dominant.²⁶⁰ The FinTech industry is an especially thriving domestic e-commerce sector, having captured more than fifty percent of the Chinese population that regularly uses mobile payments, making China a leader in the establishment of a cashless society.²⁶¹ Mobile payments have captured the imagination of not just city dwellers but also more rural ones, with twenty percent of users in townships and villages.²⁶² However, this FinTech industry is dominated by private companies like Alipay and WeChat Pay,²⁶³ which can be used even outside of China by Chinese overseas travelers and in China by foreign tourists holding credit cards issued in their own countries.²⁶⁴

The private FinTech industry has in its control a vast trove of consumer data. Although the government, theoretically speaking, could access such data, the data is stored by companies like Ant and Tencent in a way that is not easily accessible or legible to the government. But now, "by building out the DCNY, the PBOC will be able to create a digital architecture that is significantly more effective at capturing the types of data that the government is interested in having, with no intermediary capable of pushback."²⁶⁵

Indeed, this tug of war between the government and the private FinTech industry can be seen in the government's cancellation of Ant Group's initial public offering estimated at \$37 billion,²⁶⁶ dubbed the "Chinese 'techlash.'"²⁶⁷ In doing so, the Chinese government sent an undeniable message: "No private business gets

²⁶⁰ *See id.*

²⁶¹ Daniel Slotta, *Digital Payments in China - Statistics & Facts*, STATISTA (Jan. 6, 2023), <http://www.statista.com/topics/1211/digital-payments-in-china/#dossierKeyfigures> [<http://perma.cc/7BFQ-WKNU>].

²⁶² *See id.*

²⁶³ The private FinTech industry in China is vast and interconnected. *See* Kynge & Yu, *supra* note 1.

Alipay and WeChat Pay not only form the backbone of China's payments system in an economy that is already largely cashless. Their business also supports the share prices of Tencent, which is one of the world's 10 largest companies with a capitalisation of more than \$920bn, and Alibaba, which owns a stake in Ant Group.

Id.

²⁶⁴ *See* Slotta, *supra* note 261.

²⁶⁵ Bram, *supra* note 230.

²⁶⁶ *See* Kynge & Yu, *supra* note 1.

²⁶⁷ Bram, *supra* note 230.

to swagger unless the government is on board with it.”²⁶⁸ Chinese regulators denied the Initial Public Offering (“IPO”) scheduled in Shanghai and Hong Kong at the last minute despite the fact that it would have been even more lucrative than the IPO of Saudi Aramco, the state-run oil company—an act akin to a giant slap in the face of Ant’s controlling shareholder, Jack Ma, founder of Alibaba, to make clear “that international bragging rights mattered less than ensuring private companies know where they stand next to the state.”²⁶⁹ As Kellee S. Tsai, the dean of the School of Humanities and Social Science at the Hong Kong University of Science and Technology said, “What happened to Ant reinforces that sense that it’s really essential to show respect for party-state authority Capitalists have to play by the political rules of the game.”²⁷⁰

Although the state-controlled media described the move as necessitated by the government’s desire to protect investors, others disagreed. Andrew Collier, the founder and managing director of Orient Capital Research, believed the move was meant to protect big government-run banks whose profit was undercut by the Ant group: “[m]y personal view is that the banks were looking for an excuse to nip this in the bud and also give them adequate time to try to get their own online operations up to speed.”²⁷¹ The government considers its state banking system as an instrument of its economic power, and anything that threatens the centralized banking system is a threat to its own power.²⁷²

Under President Xi Jinping, Chinese regulators also cracked down on private innovation that was deemed too risky or freewheeling, including closure of the once vibrant peer-to-peer (“P2P”) lending platforms, which had numbered around ten thousand in 2015 but have essentially dwindled down to approximately twenty-nine—as they had been “regulated out of existence.”²⁷³ P2Ps had very low costs and succeeded in collecting

²⁶⁸ Raymond Zhong, *In Halting Ant’s I.P.O., China Sends a Warning to Business*, N.Y. TIMES (Dec. 24, 2020), <http://www.nytimes.com/2020/11/06/technology/china-ant-group-ipo.html>.

²⁶⁹ *See id.*

²⁷⁰ *Id.*

²⁷¹ *Id.*

²⁷² *See* Kyng & Yu, *supra* note 1.

²⁷³ *See* Herbert Poenisch, *China Moves Towards Greater Control Over Fintechs*, OMFIF (Mar. 12, 2021), <http://www.omfif.org/2021/03/china-moves-towards-greater-control-over-fintechs> [<http://perma.cc/YY4Y-6HQA>]. Peer-to-peer lending platforms “were initially celebrated as a technological and financial innovation, allowing millions of small savers to invest and millions of small- and medium-sized enterprises to borrow small amounts of money.” *Id.*

vast amounts of data.²⁷⁴ Through P2Ps, borrowers and investors can be efficiently matched online, resulting in a win-win scenario where borrowers can receive lower interest rates and lenders higher interest rates because intermediaries—which normally take a cut—are bypassed.²⁷⁵ P2Ps became attractive because there was an excess of uninvested cash in China, given the fact that the Chinese have one of the highest personal savings rates in the world—fourty-six percent compared to four percent in the United States.²⁷⁶ Investors, including state-owned enterprises, flocked to P2Ps, many expecting returns to be guaranteed because Chinese investors are used to receiving guaranteed rates of return—given the fact that most financial institutions are state-owned.²⁷⁷ The industry was riddled with fraud, inefficiencies, failure to do due diligence, and risk assessment on borrowers, causing the state to step in to address the crisis by imposing stricter regulations.²⁷⁸

At the same time, even if regulatory oversight was necessary, there is no doubt that state scrutiny was triggered by the government's concerns about its own state banks and their own access to deposits. As noted:

Access to deposits was also at the core of the investigation into Ant's business model. China's big banks regard such access as their privilege and called on the supervisory authorities to push out any intruders. They labelled what the fintechs were doing illegal fund raising activity, which needed to be cleaned up. Established banks wanted to play on a level playing field with fintechs.²⁷⁹

These concerns were echoed at the 2020 FinTech festival held in Singapore by Guo Shuqing—the chairman of the China Banking and Regulatory Commission and chief representative of the Communist Party of China at the PBOC—who exhorted greater control over the fintech industry by “[c]lipping the wings of big fintech companies and putting the state in charge.”²⁸⁰

According to Minxin Pei, professor of government at Claremont McKenna College, China is struggling for “a balanced course between opening and maintaining control. . . . The

²⁷⁴ *Id.*

²⁷⁵ See Joe Ngai, *What Today's Shake-Out in China's Peer-to-Peer Lending Market Means for Fintech*, MCKINSEY & CO. (Oct. 9, 2018), <http://www.mckinsey.com/cn/our-insights/perspectives-on-china-blog/what-todays-shakeout-in-chinas-peer-to-peer-lending-market-means-for-fintech> [<http://perma.cc/PJE7-A4WB>].

²⁷⁶ *See id.*

²⁷⁷ *See id.*

²⁷⁸ *See id.*

²⁷⁹ Poenisch, *supra* note 273.

²⁸⁰ *Id.*

sentiment is one of uncertainty, caution. . . . When you have Ant, which is truly gigantic, which will allow people to move money around a lot more easily, with very little transparency, really — that can worry the hell out of them.”²⁸¹

The digital yuan is one way that the government can “undermine the market position of Alipay and WeChat Pay, the two most popular and privately owned platforms run by Ant Group and Tencent.”²⁸² Authorities such as Wang Yongli, a former vice-president of the Bank of China, one of China’s largest state-owned banks, predict that “[t]he wide use of the digital renminbi will affect the market position and profit model of third-party payment platforms like Alipay and WeChat pay.”²⁸³ Others, such as a director at a state-owned bank wishing to remain anonymous, have similarly predicted: “The digital currency will deal a blow to Alipay and WeChat as it could replace them It is likely that the government will use administrative power to promote the use of digital renminbi to undermine the monopoly on consumer data held by the technology firms.”²⁸⁴

Such administrative authority is part and parcel of the digital yuan, derived from its status as legal tender and therefore must be accepted by all merchants who will be required to install e-yuan terminals once digitalization is finalized.²⁸⁵ A sense that the popularization of the digital renminbi could come at the expense of Alipay and WeChat Pay is reinforced by Beijing’s messaging through state media coverage.²⁸⁶ In a dispatch from the streets of Beijing during Chinese New Year, a reporter from CCTV, the official television station, elevated the e-yuan over other payment systems.²⁸⁷ Through its state media, Beijing has been promoting it as a “more convenient” alternative, as it is as convenient as cash since it can be used offline.²⁸⁸ “If there is no internet connection, users can still transfer money between two offline devices by using what the state media calls ‘dual offline technology.’”²⁸⁹ Although the e-yuan will not be hostile to the private payment system, the central bank has designed the e-yuan to be independent of Alipay

²⁸¹ Zhong, *supra* note 268.

²⁸² Kyngé & Yu, *supra* note 1.

²⁸³ *Id.*

²⁸⁴ *Id.*

²⁸⁵ *See id.*

²⁸⁶ *Id.*

²⁸⁷ *Id.*

²⁸⁸ *Id.*

²⁸⁹ *Id.*

and WeChat Pay.²⁹⁰ While both private platforms can be used for e-yuan transactions, it is likely that “the private platforms will be enlisted to promote the e-yuan’s rise.”²⁹¹ Indeed, even as the government allows both systems to coexist for the time being, the rise of the state system and an increase in its market share will cut into Alipay and WeChat Pay consumer lending business.²⁹²

In fact, China even required Alipay, a private company, to switch to UnionPay, the state-owned Chinese equivalent of Visa or Mastercard with close ties to the PBOC, for barcode payment clearing.²⁹³ Alipay and other payment services constitute sixteen% of China’s GDP, the highest percentage in the world; therefore, hitching Alipay, a distributor of the digital yuan, to UnionPay “would allow China’s central bank to distribute and keep track of it easily. This works both ways because UnionPay also has plans to ramp up international adoption.”²⁹⁴ Thus, even though the linkage is also good for UnionPay’s own international ambitions, it especially fits into the government’s quest for control. This is because “[s]ince 2018, Alipay and WeChat have agreements for barcode payments to be cleared via Unionpay, effectively giving the central bank oversight.”²⁹⁵

The desire of the Communist Party for control cannot be overstated, especially in today’s China, where “the authorities under Xi Jinping, the country’s top leader, have brought a steely, uncompromising edge to their tactics for enforcing the Communist Party’s will.”²⁹⁶ However, given the fact that internationalizing the yuan is one of the government’s top priorities so China can be freed “from having to settle most of its

²⁹⁰ *Id.*

²⁹¹ *Id.*

²⁹² *See id.*

²⁹³ *See* Wood, *supra* note 9. UnionPay is one of the first third-party payment service institutions in China to have a cooperation agreement with the Digital Currency Research Institute, the CBDC branch of the central People’s Bank of China. *UnionPay Debuts Self-Service Network for Merchants to Add Digital Yuan Options*, PYMNTS (Mar. 29, 2022), <http://www.pymnts.com/personnel/2022/digital-bank-gxs-executive-director-to-step-down/> [<http://perma.cc/28EX-7CGP>].

²⁹⁴ Wood, *supra* note 9. UnionPay cards are accepted in 173 countries and regions, including South Africa, Australia, New Zealand, Canada, and Russia. *Id.* French supermarket Carrefour and U.S. giant Walmart also use UnionPay to process payments. *Id.* In addition, UnionPay issues cards in 54 countries and regions, including Belt and Road Initiative countries like Laos, Tanzania, and Tajikistan. *See id.*

²⁹⁵ *How China Will Implement Its Central Bank Digital Currency*, LEDGER INSIGHTS (Aug. 29, 2019), <http://www.ledgerinsights.com/how-china-will-implement-its-central-bank-digital-currency-cbdc/> [<http://perma.cc/HB9W-SP5F>].

²⁹⁶ Zhong, *supra* note 268.

trade transactions in the US dollar,”²⁹⁷ the government also realizes its desire for control has to be tempered.

This is because there is potentially an inherent tension between the desire for yuan internationalization on the one hand and domestic control on the other. The ability to see and potentially monitor every transaction might put foreign banks in a quandary with respect to confidentiality rules in their home countries.²⁹⁸ The ambiguity in “managed anonymity” is likely to “hamper Beijing’s longstanding aspirations to promote the use of its currency internationally as part of [its] long-range ambition to free itself from having to settle most of its trade transactions in the US dollar.”²⁹⁹ As a Hong Kong businessperson who preferred anonymity put it, “If the Communist party will get insight into every trade we do through the digital renminbi, then I think a lot of people outside China will prefer not to use it.”³⁰⁰

Thus, it would not be surprising if that degree of state control backfires because it spooks foreign investors and companies “already wary of China’s track record on intellectual property rights, economic coercion[,] and rule of law.”³⁰¹ Foreign companies are already concerned about how quickly the Swedish retailer H&M was canceled from the Chinese market when it announced it would stop importing cotton from Xinjian, out of concern for how the government was treating the Uyghur Muslim minorities.³⁰² Alibaba Group’s Tmall and JD.com dropped H&M from its sites as the Communist Youth League intensified its calls for boycott of not just H&M but other Western brands like Nike and Burberry.³⁰³ Imagine a scenario in which “foreign merchants had to use the e-CNY [digital yuan], . . . the government could prohibit transactions with H&M wallets and the store could disappear from digital yuan apps.”³⁰⁴

As Yaya Fanusie, a cryptocurrency expert and adjunct senior fellow at the Center for a New American Security, observed, “[t]his is the other side of the coin—Beijing not as a sanctions evader, but

²⁹⁷ Kyngé & Yu, *supra* note 1.

²⁹⁸ See *Digital Yuan Gives China a New Tool to Strike Back at Critics*, *supra* note 47.

²⁹⁹ Kyngé & Yu, *supra* note 1.

³⁰⁰ *Id.*

³⁰¹ *Digital Yuan Gives China a New Tool to Strike Back at Critics*, *supra* note 47.

³⁰² See Vanessa Friedman & Elizabeth Paton, *What Is Going On with China, Cotton and All of These Clothing Brands?*, N.Y. TIMES (Apr. 2, 2021), <http://www.nytimes.com/2021/03/29/style/china-cotton-uyghur-hm-nike.html>.

³⁰³ See *id.*

³⁰⁴ *Digital Yuan Gives China a New Tool to Strike Back at Critics*, *supra* note 47.

more empowered to enforce its own financial muscle China's digital currency is as much about data as it is about money."³⁰⁵

B. Digital Yuan's Dollar Challenge

Even as China aims to use the digital yuan to further domestic control, it is also taking steps to liberalize and internationalize its monetary system. "As an easily accessible exchange of value with clear international ambitions, the CBDC could be China's way of challenging the dominance of the USD."³⁰⁶ For many years, China has taken a series of actions designed to set the yuan towards an internationalization path. For example, in 2014, China surpassed the United States as the largest trader of goods in the world.³⁰⁷ Thus, for China, "there is a disconnect between the highest proportion of the world's trade going through China and its denomination in USD."³⁰⁸ The government has taken many steps to begin yuan internationalization: (1) it has established an official link between the Shanghai-Hong Kong and Shenzhen-Hong Kong stock markets in 2014 and 2016, respectively, as a step towards the gradual internationalization of the capital market; (2) it allowed investors from China and Hong Kong to trade bonds on each other's interbank markets, resulting in an increase in foreign institutions holding yuan-denominated bonds, approximately in the amount of 82.6 billion yuan or 12.4 billion dollars in 2017; and (3) it established the Belt and Road Initiative which has increased the use of the yuan as a funding mechanism, providing large loans to borrowing countries,³⁰⁹ resulting in a record amount of exported yuan.³¹⁰ The actual loan amount is unclear because fifty percent of

³⁰⁵ *Id.*

³⁰⁶ Wood, *supra* note 9.

³⁰⁷ See China 'Overtakes' US as World's Largest Goods Trader, BBC (Jan. 10, 2014), <http://www.bbc.com/news/business-25678415> [<http://perma.cc/8ENZ-GZMD>] (stating that, despite concerns about China presenting inaccurate information, "analysts also said that even if the issue of inflated numbers was taken into account, China would still take the top spot from the US").

³⁰⁸ Wood, *supra* note 9.

³⁰⁹ See Xinhua, *Chinese Yuan's Global March, a Year After SDR Entry*, CHINADAILY (Oct. 1, 2017, 4:33 PM), http://www.chinadaily.com.cn/business/2017-10/01/content_32728611.htm [<http://perma.cc/F5WZ-5RAE>]; see also BARRY EICHENGREEN & MASAHITO KAWAI, *RENMINBI INTERNATIONALIZATION: ACHIEVEMENTS, PROSPECTS, AND CHALLENGES* (2015).

³¹⁰ Sebastian Horn, Carmen Reinhart & Christoph Trebesch, *China's Overseas Lending* 14 (Kiel Inst. for the World Econ., Working Paper No. 2132, 2020), http://www.ifw-kiel.de/fileadmin/Dateiverwaltung/IfW-Publications/Christoph_Trebesch/KWP_2132.pdf [<http://perma.cc/H3GF-9QRY>].

Developing and emerging countries are now much more indebted to China than to all other major creditor governments combined: According to our

China's lending to developing countries is not reported to either the IMF or the World Bank and is not on the radar screen of credit rating agencies like Moody's or Standard and Poor's.³¹¹ What is clear, however, is the rise in demand for yuan among the countries along the "Silk Road Economic Belt" or the BRI, particularly in Africa—where there was an increase of 123% in RMB used for payments to China from 2014 to 2018.³¹²

In January 2021, the government, via China's CIPS and the Payment & Clearing Association of China—both supervised by the PBOC—formed a joint venture called Finance Gateway Information Services Company with SWIFT to promote global use of the digital yuan.³¹³ The joint venture was designed to facilitate the rollout of digital currency and further "information system integration, data processing and technological consultancy."³¹⁴ As a director at a large state-owned bank remarked, "[a] bigger goal of ours is to challenge the dominance of the US dollar in international trade settlement. . . . But progress towards this will only be gradual."³¹⁵

A digital yuan would give China geopolitical leverage over companies that want access to China's massive internal market. Additionally, the Chinese government would have enhanced power to monitor digital transactions and retaliate against any foreign or domestic entity that holds prohibited opinions on issues like Taiwan, Hong Kong, and human rights. At a government-backed U.S.-China Economic and Security Review Commission hearing, Matt Pottinger, former U.S. deputy national security adviser, stated, "[i]f you think that the United States has a lot of power through our Treasury sanctions authorities, you ain't seen nothing yet That currency can be turned off like a light switch."³¹⁶

estimates, developing and emerging market sovereigns owe 370 billion USD to China compared to 246 billion USD in debt owed to the group of 22 Paris Club member governments

Id.

³¹¹ See *id.* at 1–2.

³¹² See *Rise of the Chinese Influence Strengthens RMB Demand*, SWIFT (June 5, 2019), <http://www.swift.com/news-events/news/rise-chinese-influence-strengthens-rmb-demand> [<http://perma.cc/X86A-66GJ>].

³¹³ See *UPDATE 1-SWIFT Sets Up JV with China's Central Bank*, REUTERS (Feb. 4, 2021, 1:43 AM), <http://www.reuters.com/article/china-swift-pboc/update-1-swift-sets-up-jv-with-chinas-central-bank-idUSL1N2KA0MS> [<http://perma.cc/427J-LY6T>]; see also Kyng & Yu, *supra* note 1.

³¹⁴ See *UPDATE 1-SWIFT Sets Up JV with China's Central Bank*, *supra* note 313.

³¹⁵ Kyng & Yu, *supra* note 1.

³¹⁶ *Digital Yuan Gives China A New Tool to Strike Back at Critics*, *supra* note 47.

It is also apparent that the PBOC's interest in the digital yuan transcends domestic objectives and has significant "geopolitical implications."³¹⁷ As early as 2018, the PBOC was alerted, in a report titled *A Brief Analysis of Stablecoins* by Li Liangsong of the central bank³¹⁸ itself, of the need to explore yuan-pegged cryptocurrency given the rise of stablecoins pegged to the U.S. dollar and the potential that "it could increase the dominance of the dollar in the global economy."³¹⁹ Li Liangsong saw the need to rein in stablecoins to preempt a threat to central institutions and to create an environment in which "[t]he evolution of this monetary system will likely be eventually achieved by a central bank-issued fiat digital currency."³²⁰ PBOC researchers warned that "private U.S.-dollar-based stablecoins prevalent in the market could increase the dollar's global dominance and hurt the renminbi's international use."³²¹ And the vice chair of the China Center for International Economic Exchanges, Huang Qifan, also saw the need to launch a digital currency project as a counterbalance to American financial and political domination of SWIFT.³²² It is through SWIFT, deemed a "financial instrument"³²³ of the United States, that the United States could "exercise global hegemony and carry out long-arm jurisdiction."³²⁴ In explicit terms, Huang acknowledged that a digital yuan "is conducive to the circulation and internationalization of the RMB."³²⁵

Jeremy Allaire, CEO of the crypto-finance firm Circle, described China's digitalization efforts as a way to "bypass the Western banking system."³²⁶ Indeed, China's goal for the yuan is broad and deep, using digitalization to achieve "a stronger foothold in the global financial system of the future. Beijing aims to counter the U.S. role as standards setter, cultivate Chinese government leadership in international engagement on digital currency technology, and potentially offer technological know-

³¹⁷ FANUSIE & JIN, *supra* note 6, at 4.

³¹⁸ See Shaurya Malwa, *People's Bank of China Recommends Yuan-Pegged Stablecoin*, CRYPTOSLATE (Apr. 22, 2021, 12:05 PM), <http://cryptoslate.com/peoples-bank-of-china-recommends-yuan-pegged-stablecoin/> [<http://perma.cc/QR5V-GDEP>].

³¹⁹ *Id.*

³²⁰ *Id.*

³²¹ FANUSIE & JIN, *supra* note 6, at 4.

³²² See *id.* at 5.

³²³ Miranda Wood, *China "Likely to be the First" to Issue Central Bank Digital Currency, Says Official*, LEDGER INSIGHTS (Oct. 29, 2019), <http://www.ledgerinsights.com/china-first-issue-central-bank-digital-currency/> [<http://perma.cc/3JGU-8VC7>].

³²⁴ *Id.*

³²⁵ *Id.*

³²⁶ Wood, *supra* note 9.

how to other interested nations.”³²⁷ By being the first to launch a CBDC, one could say that “China is trying to set international standards on CBDCs and gain an advantage against any potential international competitors, whether from state-based or private digital currencies.”³²⁸

Commentators have noted that “China’s technocrats aspire to build a payments system that is easier for its trading partners to use and harder for America to block.”³²⁹ Because the digital yuan is essentially brand new and details have yet to be worked out, one can only surmise for now how China might use it to block or bypass dollar sanction. Sun Lijian of Fudan University observed as follows:

It is necessary and capable for China to establish a new payment system network to break the monopoly of the US dollar, and the legal digital currency will be an important magic weapon. You can use channels such as ‘overseas online shopping’ consumption, investment and loans from countries along the ‘Belt and Road’ to open up overseas markets.³³⁰

A report from the Hoover Institute warned that a “weakening of US-led sanctions regimes could be among the most significant potential geostrategic implications of the e-CNY.”³³¹ Transactions facilitated through the digital yuan might succeed in avoiding SWIFT and its network of correspondent banks; this is in fact “part of the promise (and peril) of digital currencies tied directly to central banks and linked to scalable cross-border mechanisms.”³³² The digital yuan could “make it easier and cheaper for foreigners to make cross-border payments—and harder for America to block those transactions for geopolitical purposes.”³³³

The government could set up a special zone to handle application for wallets from users abroad.³³⁴ Approved financial institutions could screen foreign applicants through “know-your-

³²⁷ FANUSIE & JIN, *supra* note 6, at 5.

³²⁸ *Id.*

³²⁹ *The Digital Yuan Offers China a Way to Dodge the Dollar*, THE ECONOMIST (Sept. 5, 2022), <http://www.economist.com/finance-and-economics/2022/09/05/the-digital-yuan-offers-china-a-way-to-dodge-the-dollar>.

³³⁰ Sun Lijian, *New Opportunities for the Development of China’s Legal Digital Currency*, CHINA FIN. MAG. (Sept. 14, 2020, 8:02 PM), <http://mp.weixin.qq.com/s/wFWDLkluQGJBQpEhLjo1ZA> [<http://perma.cc/UQ2D-NRSY>]. *But see* Laura He, *China’s Digital Yuan Could Be Used by Athletes and Visitors at the Beijing Olympics*, CNN BUS. (Apr. 19, 2021, 9:32 AM), <http://www.cnn.com/2021/04/19/investing/china-digital-yuan-us-dollar-intl-hnk/index.html> [<http://perma.cc/92LS-YNGA>].

³³¹ HOOVER INST., DIGITAL CURRENCIES: THE US, CHINA, AND THE WORLD AT A CROSSROADS 94 (Darrell Duffie & Elizabeth Economy eds., 2022).

³³² *Id.* at 95.

³³³ *The Digital Yuan Offers China a Way to Dodge the Dollar*, *supra* note 329.

³³⁴ *Id.*

customer” mechanisms.³³⁵ And the process could be further streamlined when foreign users can apply for e-yuan wallets remotely through Chinese banks with a presence in their own home countries.³³⁶ Foreigners who hold e-CNY wallets could then transact with other wallet holders. Once a foreigner has qualified for a wallet, e-CNY transactions with other wallet holders would be easy and cheap; at some point, there would be no need to even have a “Chinese user on the other side of the trade.”³³⁷

Realistically speaking, however, since the United States would not be able to monitor digital yuan transactions the way it could dollar payments, it is possible some such e-yuan transactions would escape U.S. scrutiny. But “if the . . . e-CNY became too big a threat to its sanctions regime, America could in theory ban its use by any institution that wants to retain access to the American clearing system. That would force the world to choose between the dollar and the digital yuan,”³³⁸ and at this stage, it is unlikely the dollar would be abandoned.

Although the e-yuan will not magically allow China to inoculate itself from dollar-based sanctions right away, as this Article has shown, it is one step towards the direction China has been planning for.

CONCLUSION

For decades, the dollar’s hegemonic influence on the international monetary system has been a source of resentment by allies and rivals alike. As this Article has shown, the dollar is not only the world’s reserve currency but also the U.S. national currency, giving the United States unprecedented influence on the world’s economy. In addition, the United States has exploited the dollar’s dominance, using dollar sanctions, often unilaterally, to punish countries whose behavior is deemed unacceptable by the United States. China has objected when American sanctions have swept Chinese companies into its orbit, forcing them to stop transacting with nationals of countries subject to dollar sanctions.

Against that backdrop, the deployment of China’s digital yuan is meant to be a step towards whittling down U.S. dollar hegemony as well as blocking or sidestepping dollar weapons. Although the government professed benign motives for its

³³⁵ *Id.*

³³⁶ *Id.*

³³⁷ *Id.*

³³⁸ *Id.*

interest in and issuance of the digital yuan, the reality is more complex. China's CBDC is designed to accomplish two objectives, international and domestic. First, the digital yuan can jumpstart the internationalization of the yuan and position it as a rival to the dollar. Second, China's establishment of its own digital currency—digitalization with Chinese characteristics—is meant to subdue and manage private threats to the state by bringing the powerful private FinTech sector, as well as private digital currencies, into state control.

As this Article has demonstrated, dedollarization has become a priority for many countries. For Russia, this became a priority as early as 2014 when it was faced with Western sanctions following its annexation of Crimea and has become urgent since its invasion of Ukraine.³³⁹ Given its own quest to dethrone the dollar and its increasing rivalry with the United States, China has not participated in isolating Putin and has staked a nonadversarial, even arguably supportive position towards Russia, as Chinese President Xi Jinping defied the West in a high-stakes visit to Moscow in March 2023. For China, Russia is a “giant lab in which the government is conducting an experiment in forced disengagement from the Western economic, industrial, cultural, and financial sectors,”³⁴⁰ providing Beijing with an opportunity “to observe . . . in real time [how] to prepare for similar shocks”³⁴¹ Locked out of the dollar-based international financial system, Russia has been turning to the yuan.³⁴² After Xi's visit, Putin announced that Russia is “in favor of using the Chinese yuan for settlements between Russia and the countries of Asia, Africa, and Latin America.”³⁴³

Because the digital yuan system is capable of sidestepping traditional payment mechanisms, “[c]itizens will not have to rely on costly commercial banks and messaging services like SWIFT

³³⁹ Mrugank Bhusari and Maia Nikoladze, *Russia and China: Partners in Dedollarization*, *ECONOGRAPHICS* (Feb. 18, 2022), <http://www.atlanticcouncil.org/blogs/econographics/russia-and-china-partners-in-dedollarization/> [<http://perma.cc/CA7K-8KA5>].

³⁴⁰ Mikhail Korostikov, *Xi in Moscow: Russia Offers China a Glimpse of Its Own Future*, *CARNEGIE POLITIKA* (Mar. 24, 2023), <http://carnegieendowment.org/politika/89374> [<http://perma.cc/P6ZB-6DGY>].

³⁴¹ *Id.*

³⁴² *Can Russia and China Succeed in Dethroning the Dollar?* *AL JAZEERA* (Apr. 1 2023), <http://www.aljazeera.com/program/counting-the-cost/2023/4/1/can-russia-and-china-succeed-in-dethroning-the-dollar> [<http://perma.cc/F2H3-468E>].

³⁴³ Fareed Zakaria, *The Dollar is Our Superpower and Russia and China Are Threatening It*, *WASH. POST* (Mar. 24, 2023), <http://www.washingtonpost.com/opinions/2023/03/24/us-dollar-strength-russia-china/>.

for cross-border payments.”³⁴⁴ Transactions can be made digitally through “a simple exchange of tokens,”³⁴⁵ assuming other countries have similar technological ecosystems capable of facilitating token exchanges.³⁴⁶ Other possibilities abound to avoid dollar sanctions through cross-border CBDC initiatives, such as the joint project between the PBOC and the Central Bank of the United Arab Emirates to create a multiple CBDC bridge to “facilitate real-time cross-border foreign exchange payments on distributed ledger technology.”³⁴⁷

Dedollarization is not likely to happen in one fell swoop, precipitated by a Big Bang event. Although dissatisfaction with the dollar and U.S. management of the world’s reserve currency has been bubbling for many years, the dollar has maintained its hegemonic status. This Article, however, has demonstrated that yuan internationalization and digitalization should be understood and considered within a wider context, possibly signaling the beginning of the end of dollar hegemony.

³⁴⁴ Rajesh Bansal & Somya Singh, *China’s Digital Yuan: An Alternative to the Dollar-Dominated System*, CARNEGIE INDIA (Aug. 31, 2021), <http://carnegieindia.org/2021/08/31/china-s-digital-yuan-alternative-to-dollar-dominated-financial-system-pub-85203> [<http://perma.cc/P5Y2-WJZ7>].

³⁴⁵ *Id.*

³⁴⁶ *Id.*

³⁴⁷ *Id.*