Digital Currency Wars? US-China Competition and Economic Statecraft

By Vinod K. Aggarwal & Tim Marple

The importance of digital currencies is rising in a variety of economic relations across the world, ranging from basic payment systems such as Bitcoin to alternative central bank currencies.

These new economic instruments are increasingly important flashpoints for global competition, with evidence of growing 'digital currency wars' among great and middle powers, write Vinod K. Aggarwal and Tim Marple.

BY MANY ACCOUNTS, the United States and China are engaged in an emerging Cold War.[1] Yet the contours of this war are markedly different than the US-USSR competition from the 1940s to the 1980s. China and the US are highly economically interdependent.[2] Both countries have also engaged in active economic statecraft. Each seeks both economic and strategic gain through an array of trade and industrial policies and investment regulations to bolster high technology industries.[3] We believe that one area, digital currencies, will be a key area of future competition and conflict between the two countries. This conflict will also likely spill over to other countries and private actors.[4]

With respect to digital currencies, analysts and policymakers have focused primarily on the technological, economic and regulatory implications of cryptocurrencies such as Bitcoin. Yet this focus ignores the rapid development of other important digital currencies.[5] Governments increasingly support digital currencies through economic statecraft such as China's digital yuan. More generally, governments seek to regulate and sometimes intentionally displace the private actors who originated private digital currencies like cryptocurrencies.

We focus on two issues here: First, we look at the national-security implications of digital-currency competition. Second, we examine the factors that drive state intervention to create or regulate digital currencies. If successful, the digital yuan stands to challenge the US privilege in borrowing, a unique freedom the country has leveraged to avoid political and economic issues of trade adjustment costs. Digital alternatives to the US dollar may also undermine the capacity of the US to enforce sanctions across the world. An alternative reserve currency opens the possibility of new debt regimes, evidenced by China's explicit goal of linking the digital yuan to its already-expansive network of Belt and Road Initiative lending partners. Beyond these factors, digital currencies also open new attack surfaces in hostile interstate relations, especially given the cybersecurity concerns associated with digital ledgers. To analyze government motivations to address these concerns, we examine a set of factors that will likely drive economic statecraft in digital currencies, including technological and market factors, domestic structures, and system and international regime characteristics.

We begin with a brief history of digital currencies. We then turn to a detailed examination of the national-security characteristics of digital currencies that are relevant to global competition. Next, we explore how an economic statecraft lens can help us better understand the motivations and prospects for intervention in this sector. We conclude with a discussion of how this emerging digital currency war will likely affect US-Chinese relations, and the related implications for other countries and private actors in the global economy.

THE EVOLUTION OF DIGITAL CURRENCIES

In the midst of the global financial crisis of 2008, an anonymous individual published the proof-of-concept for Bitcoin, the first actualized cryptocurrency, online, promising a radical form of money requiring no interpersonal trust or government oversight.[6] In the 12 years since, Bitcoin has seen prolific adoption as a payment system and store of value, and more importantly, it has triggered rapid evolution in alternative forms of cryptocurrencies across the world.[7] Digital currencies have now scaled beyond initial use cases like Bitcoin and other private cryptocurrencies to adoption and innovation among firms and banks, and most importantly, by sovereign governments. In January 2019, 70 percent of central banks responding to a survey by the Bank for International Settlements indicated ongoing or planned work on sovereign digital currencies.[8]

Without mutually agreed constraints on creating, managing and regulating digital currencies, we are still in the 'Wild West' phase of the market. The absence of accepted regional or global regulatory mechanisms is therefore likely to increase government incentives to use economic statecraft to gain an edge on competitors.

This trend toward sovereign digital currencies is due in large part to pressures that have arisen from other kinds of digital currencies, like cryptocurrency. Cryptocurrencies have evolved in technical design over time, iteratively responding to the economic externalities and government responses to prior versions. For example, early decentralized cryptocurrencies like Bitcoin raised government concerns around criminal financing and money laundering, as well as skepticism around their use as a store of value given their market price volatility.[9] In response, rather than simply accepting decentralized cryptocurrencies for payment, companies began issuing initial coin offerings, a private digital asset which allows firms to offer digital coins for goods or services, in lieu of stocks, to raise money.[10] New firms also emerged offering "stablecoins," cryptocurrencies designed to maintain a stable price against a fixed target currency or asset, in explicit response to government concerns on price volatility.[11]

Whereas the US and other Western countries have seen the proliferation of private applications, as with cryptocurrencies and initial coin offerings, China has made by far the most progress on its sovereign central bank digital currency.[12] These trajectories of digital currency development have had two-way spillovers linked directly to the broader US-China economic conflict. Libra, Facebook's proposed private digital currency, placed pressure on China to hasten its digital currency pilot.[13] Similarly, China's research into a sovereign digital currency has pressured the US Federal Reserve and many other central banks to start pilots of their own.[14]

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IMPLICATIONS FOR NATIONAL SECURITY

Emerging competition around sovereign digital currencies is significant for interstate economic and security relations. Here, we identify four important security implications, although we do not argue that these are exhaustive. While our discussion is predominantly centered on US-Chinese conflict, we also briefly discuss the implications of these tensions for other middle- and smaller-power states.

First, central bank digital currencies may function in part as reserve assets. This threatens the position of the US dollar as a globally hegemonic reserve currency, especially if new sovereign digital currencies produce more liquid money markets with greater confidence. As a result, the advent of central bank digital currencies is a direct threat to the "exorbitant privilege" the US has of importing goods in its own currency and thereby avoiding costly adjustments.[15] The consequences of this shift would be enormous. Much of the domestic and military expenditures of the US are byproducts of its capacity to incur larger volumes of debt than it might otherwise be able to without this privilege.[16] While many observers note that the bar for fully unseating the US dollar as a hegemonic currency is high,[17] this is arguably not the threshold where a challenge to exorbitant privilege would arise. Even a regionally hegemonic digital yuan would introduce constraints on the dollar and begin similarly empowering China.

Second, central bank digital currencies are being explicitly designed with an eye toward cross-border payments. Many of these instruments are built to operate on their own networks as a function of their underlying ledger technology, meaning they may not be processed through the Society for Worldwide Interbank Financial Telecommunication (SWIFT) network.[18] The US relies heavily on this network to employ one of its most powerful foreign economic policy tools: sanctions. The creation of sovereign digital currencies that operate outside of this network thus diminishes US capacity to enforce sanctions and increases the opportunities for states to defy US sanctions when issued.[19] Indeed, this is an openly stated priority for many states that disavow the use of US sanctions to enforce increasingly political goals. Ironically, several of these dissenting states are traditional US allies in Europe.[20] The race to develop central bank digital currencies thus introduces critical standard-setting issues such as the global regulation of payments over new digital currency networks and norms around how they may be strategically enforced.

Third, central bank digital currencies offer new means of denominating international debt. In line with growing discontent over a hegemonic US dollar, countries may be increasingly interested in alternative lending parties and instruments. The transition from a dollar-denominated global debt market to one that includes central bank digital currencies may undermine the American capacity to implement strategic priorities through its lending programs. On the one hand, a digital yuan may be more appealing to borrowers than traditional yuan-denominated debt, especially if it can address liquidity shortfalls in traditional lending instruments.[21] On the other hand, a digital yuan may accelerate China's accumulation of power in institutions like the International Monetary Fund (IMF), which has demonstrated interest in central bank digital currencies as new lending instruments.[22] The growing conflict over central bank digital currencies introduces clear externalities for indebted countries across the world, and holds clear impacts for the debt-security nexus that the US has leveraged to maintain predominance in global lending.

Fourth, central bank digital currencies require some degree of internet-based communication among members of the digital currency network. This necessarily introduces entirely new attack surfaces in monetary politics — namely the potential for cyberattacks on a country's currency system.[23] Given the increased use of cyberattacks in hostile interstate relations, which have escalated from US interventions in Iranian nuclear plants to Russian attacks on US electrical grids,[24] this is a serious threat that could cause potentially catastrophic damage to a country's economy. This is arguably the clearest link between sovereign digital currencies and national security and introduces pressing concerns about conflict in this domain. The associated standards that will emerge alongside competition in digital currency design choices will determine the difference between a world in which currencies are immediately weaponized for economic attacks and civil unrest, and a world in which there is consensual oversight and enforcement against this threat.

PROMOTING DIGITAL CURRENCIES THROUGH ECONOMIC STATECRAFT

How might we better understand some of the driving factors that influence state intervention in digital currencies? Drawing on work on new economic statecraft by Aggarwal and Reddie, we focus on five factors likely to influence government action in digital currencies: technological characteristics, market characteristics, domestic structure, international regimes and the structure of the global system.[25] Each can be further broken down in terms of their likely impact.

In terms of technological externalities, key features include dual-use, externalities and appropriability. We have already seen that what might appear to be a commercial enterprise can have important national security implications. In terms of externalities, currencies are the lifeblood of national and global economies, and thus technological developments in this realm have obvious spillovers to the real economy. Finally, in terms of appropriability, while Bitcoin was original and unique, we have seen that its technology could be readily copied and innovated upon. This has meant that firms can recreate digital currencies like cryptocurrency in more centralized formats, increasing state control with fewer responsibility-bearing targets to oversee. This has also meant that states can recreate the technical design of cryptocurrencies in a digital currency format that enjoys sovereign privileges of government monopoly over supply and adjustment. In short, these characteristics leave ample room for state intervention in private and sovereign applications.

With respect to the market, we focus on competitors, security of supply, barriers to entry and economies of scale. First, we see a few but growing number of private and government competitors in formal digital currency markets. This has led to government interest in both learning from and managing private digital currencies, such as cryptocurrencies, increasing pressures both to regulate private markets and create a government market. In terms of security of supply, while efficiency concerns were an important driver in the development of private digital currencies such as cryptocurrencies, we now see increasing government concerns about security of supply and technical control of systems related to these digital currencies. While barriers to entry are low for basic digital currencies, more sophisticated versions require significant knowledge and capital. Finally, economies of scale clearly exist. Akin to software products such as social media, we also find significant network externalities arising with different kinds of digital currencies. This means that competition and economic statecraft operate differently among different digital currencies. Decentralized types such as Bitcoin leave few tools to regulators beyond outright bans, but market density among digital currencies produces

internal competition from low barriers to entry. While competition among private digital currencies is shaped by regulatory standards within a state, sovereign digital currencies see more anarchic conflict over technical design among a fixed pool of relevant actors — central banks competing to achieve various policy priorities.

We next turn to domestic structures and the relationship between governments and private actors. Initially, Bitcoin and its competitors were seen as a rejection of government control over private financial markets. Yet the narrative of domination by private actors in liberal democracies has been challenged by Chinese efforts — and likely success — in developing a digital yuan. This has significant implications for the emerging digital currency wars, especially in terms of how private and public digital currencies will develop under different economic and political systems. Indeed, while Western central banks have been partnering with financial technology firms to research and design central bank digital currency prototypes, the Chinese central bank more unilaterally undertook its own research with a state-run center and whole-of-state control of the broader digital currency market.

Turning to global regulatory efforts, norms are only beginning to develop on how one should handle digital currencies, and the creation of rules is likely to be far behind. Without mutually agreed constraints on the creation, management and regulation of digital currencies, we are still in the "Wild West" phase of the market. The absence of accepted regional or global regulatory mechanisms is therefore likely to increase government incentives to use economic statecraft to gain an edge on competitors. By extension, this increases interstate co-operation on sovereign digital currency interoperability, which will ultimately determine the winners and losers of the digital currency war.

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Lastly, with respect to global systemic characteristics, US-China competition has led to an increasingly bipolar world. While some attribute this to belligerence by President Donald Trump and the aggressive behavior of President Xi Jinping, there appears little prospect of a reversal in this trend. Xi is likely to remain in power for the foreseeable future. Further, Joe Biden is unlikely to shift US policy back toward engagement under the naïve "China will become a democracy with growing interdependence" view put forward by liberal market-focused economists. Thus, on this score, we are likely to see an intensification of economic statecraft — both on the part of the US and China, as well as other large and middle powers — in private and sovereign digital currencies.

THE FUTURE OF DIGITAL CURRENCY COMPETITION

What is the likely future of digital currency competition? We argue that four main trends are likely to continue. First, states will continue to intervene in private digital currencies like cryptocurrencies and initial coin offerings. While we have already seen active engagement by more and less liberal states in suppressing corners of the digital currency market that threaten state priorities, this is likely to intensify as interstate conflict around digital currencies become more common. Specifically, we should not only expect state intervention to continue across *types* of digital currencies, but we should also expect this to be increasingly linked to the impact of that intervention on competing or co-operative peers.

Second, we should expect debate over a global or regional framework for state intervention to be especially intense given the absence of current digital currency regimes and norms. While some international institutions have spearheaded efforts to begin global standard-setting on digital currencies, as the IMF has done with stablecoins and the FATF with cryptocurrencies, these are unlikely to mitigate competitive strategic intervention without broad consensus on the nature and enforcement of these eventual standards and rules. Given the limited scope of their substantive mandates and the currently contested nature of digital currencies, international organizations like the World Trade Organization (WTO) and IMF will likely have little impact.

Third, we should expect more states to engage in this emerging digital currency conflict over time, including states that are not actively engaged with digital currencies. This is due not only to the likely proliferation of this technology, but also because of the externalities that non-participating states will face from the interoperabilities between digital currencies and other traditional financial instruments. As such, these spillovers will increasingly incorporate other states into this digital currency conflict, producing patterns of balancing and bandwagoning, thus yielding coalitions of different states divided among preferences for global digital currency norms, standards and rules.

Finally, we should expect the private sector to have diminishing authority in digital currency development as the intensity of economic statecraft increases. Namely, as the salience of norms and standards in technical design increases, and the costs of binding rules around digital currency use increase, states will have greater incentive to more directly intervene through more targeted and binding regulation of private actors. As such, we should not anticipate robust private governance of digital currencies by firms alone, but rather expect a strategic public-private dynamic wherein particular companies are either empowered or disadvantaged by their alignment with state priorities.

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The authors would like to thank Yuhan Zhang and Vincent Shan for research support and Andrew Reddie for comments. Aggarwal's work is partially supported by a National Research Foundation of Korea grant funded by the Korean government (NRF-2017S1A3A2067636). Both authors are grateful for the support of the UC Lab Fees Research Program.