



# Central Bank-Issued Digital Currency: Digital Yuan and the Party-State's Control over the Financial Sector

Chaiwat Wuthinitikornkit<sup>1</sup>

<sup>1</sup> Fudan University, 220 Handan Rd, Yangpu District, Shanghai, China, 200437  
wkchaiwat@gmail.com, 20110170061@fudan.edu.cn

**Abstract.** The People's Bank of China (PBOC) has announced the intention to launch the digital yuan, officially called the Digital Currency Electronic Payment (DCEP), for the public use. The inception of the DCEP raises some important questions. How would the DCEP impact China's existing economic model? How would it affect the party-state's role in the Chinese banking industry? What sorts of change would the digital yuan bring to the political economy of China, especially regarding the public-private relative distribution of economic power? This multidisciplinary study therefore combines the theoretical explanations as a result of digital currency with the contexts of the political economy that prevails in the China. This is done using qualitative method by collecting data and evidence from the existing policies the partial rollout of the DCEP. This paper argues that the evidence thus far of the DCEP seems to conform with the explanation put forward by the financial repression theory. This is most notable in the fact that the structure of the digital currency enhances the ability of the party-state to monitor, control and supervise the flow of digital yuan and forestalls the risks of influential players outside the party-state's control emerging within the economically strategic financial sector. Nonetheless, the DCEP is different from most other financially repressive policies in some important aspects including competition promotion between different players and utilisation of DCEP-related data as tool to improve effectiveness of macroeconomic policies.

**Keywords:** Chinese Political Economy, Financial Digitalization, Political Economy

## 1 Introduction

The Chinese party-state's exercise of control over the financial industry through its corresponding policies has been a subject of immense interests for many scholarly and policy researches on the country's economic transformation as well as its ability to consistently deliver strong growth over the post-Mao era. As China's economic reforms enter its fifth decade, the ongoing financial innovations that are taking place both inside and outside its borders could bring about far-reaching implications for the Chinese Communist Party's (CCP) ability to preside over the country's increasingly dynamic and sophisticated economy.

One key example of such innovations was digitalisation, which has transformed how money and payment system operate. An important feature as a result of digitalisation in the financial system is the manifestation of digital currencies. A digital currency can have important ramifications on how the national economic management and policies are undertaken. Digital currencies can be categorised into two different types with each arguably having different implications for the national economic governance (Bank of Japan, 2020). The first of which is digital currencies issued by private entities. The privately-run digital currencies are then subdivided into the wholesale (with financial institutions being the users), and the retail (for public use) variants. The second type is the digital currencies that are provided by the authorities, also known as the Central Bank-Issued Digital Currency (CBDC). It is also similarly composed of wholesale and retail variations.

In China, the People's Bank of China (PBOC) has announced the intention to launch the digital yuan, officially called the Digital Currency Electronic Payment (DCEP), for the public use (Tabeta, 2019). The DCEP has first been partially rolled out in four cities including Shenzhen, Suzhou, Chengdu and Xiong'an (Union Bancaire Privee, 2020). By April 2021, more than 200 million people have received DCEP accounts for the pilot scheme (Tang, 2021). The trial using the digital currency on international transaction at the Bank of International Settlement (BIS) also took place in 2022 (Reuters, 2022). By June 2023, the digital yuan's total transaction reached 1.8 trillion yuan with 120 million wallets activated (Wee, 2023).

The inception of the DCEP raises some important questions. How would the DCEP impact China's existing economic model? How would the CBDC affect the party-state's role in the Chinese banking industry? What sorts of change would the digital yuan bring to the political economy of China, especially regarding the public-private relative distribution of economic power? Therefore, this multidisciplinary study will combine the theoretical explanations as a result of the financial innovation (digital currency) with the contexts of the political economy that prevails in the China. It will undertake to shed light on these questions by building upon the existing theoretical assertions on digital currencies and the authority's control over the Chinese banking industry. Using the existing policies and evidence from the partial rollout of the DCEP in the four cities as the case, it will seek to comprehend implications for party-state's control of the financial industry as a result of DCEP policies, especially with regards to the party-state's ability to control over the Chinese financial sector. Ultimately, it will attempt to provide findings by making inferences based on the existing theories and factual evidence from the DCEP's implementation thus far.

As the scholarly investigations on the DCEP are still in its infancy, especially from the domestic political economy perspective, it is hoped that the study would be able to contribute to some useful groundwork that future related researches can build upon and deepen in scope. It would also aim to provide some explanation to the nature of the DCEP in the Chinese economic and political context, particularly in terms of the party-state's governance of the national economy through its control of the financial industry. Finally, its findings could potentially identify, derive, and raise any important policy implications that could be useful to professional policy practitioners.

## 1.1 Research Questions

Aiming to be explanatory in nature, the research questions are set with an objective to shed light on the different questions listed in the introduction part. As a result, they are derived as follow:

Research Question 1: Does the DCEP affect the party-state's ability to control over the Chinese financial industry?

Research Question 2: How does the DCEP affect the party-state's ability to control over the Chinese financial industry?

In order to avoid misunderstanding, it is vital to clearly define the key terms in the research questions. The DCEP is the digital currency issued by the PBOC that is currently being partially rolled out in China. The party-state means that the authorities governing China under the leadership of the Chinese Communist Party (CCP) (Lieberthal, 2004), of which the PBOC constitutes a part. Ability to control signifies the party-state's exercise of control over the financial industry in China through regulation, supervision, and management from its different organs. This paper will use the terms financial sector, financial industry, banking sector and banking industry interchangeably.

The purpose of the first research question is to take a step back and attempt to provide the directional findings on whether the DCEP brings about any impact. The study will then continue with the second research question, which will be utilised to gauge the magnitude of the impacts.

## 1.2 Literature Review

Considering the research questions, literature review is divided into three parts. The first part deals with different types of digital currencies in order to provide readers without economic and financial background some basic understanding of the matter. A digital currency can be issued by the government (the central bank) or by a private entity). Issuers aside, it can also be differentiated by the user type. A wholesale digital currency is one that the end users are banks and other financial institutions. An example of government-issued whole sale digital currency is the Project Stella that is being jointly studied by the Bank of Japan and the European Central Bank while the privately-issued include JPM Coin by JP Morgan Chase (Bank of Japan, 2020). A retail digital currency is designed for the public. WeChat Pay and AliPay are examples of private retail digital currencies while the government-issued retail digital currencies, or the CBDCs, include Cambodia's Bakong.

The second part involves the theoretical implications of the digital currencies. Literature has provided some key impacts that could theoretically materialise as a result of the inception of digital currencies. Brunnenmeier, et al. (2019) underline two possible scenarios, both of which have important ramification of the national governments and central banks' ability of manage the economy. Firstly, digital currencies could intensify the competition among currencies for people's usage. Resulting changes in popularity of the national currency or other government-issued financial instruments will significantly alter the effectiveness of government's economic policies. Secondly, it could

generate a “digital dollarisation” as the digital currency from abroad is adopted by consumers within the country’s national border. On the contrary, it should be noted that a digital currency issued domestically in theory can also be popularly adopted abroad and thus extend the reach of the digital currency’s state beyond its national border.

Contextual details of the digital currencies also have potentially far-reaching implications. This reinforces the necessity of closely examining the DCEP’s governing policies, *modus operandi*, and evidence from the partial rollout. Carsten (2021) highlights the importance of the structural designs of the CBDC as nuances and details of the system designs can lead to hindered effectiveness of the monetary policies and risk to the overall economic management mechanism. This is because macroeconomic instability and loss of monetary control could ensue unless the CBDC is designed to be a cheap medium of exchange, secure store of value, and a stable unit account (Bordo & Levin, 2017). Fernandez de Lis and Gouveia (2019) highlight the pros and cons of different digital currency variants and note the potential disruption to the banking sector and the political economy of the central bank. Nuño (2018) and the Bank of Thailand (2021) more specifically point to the risk that the CBDC would create a risk-free asset that may affect the profitability of and divert consumer deposit funds from the banking sector, particularly during the time of crisis.

Finally, it is also worth outlining the discussion of the theoretical explanations to China’s approaches and policies to control over the financial sector. On one hand, the party-state’s majority ownership of the banking sector is argued to be in line with the financial repression theory (Shawn, 1973; McKinnon, 1973; Ito, 2008). Based on this perspective, the party-state needs to firmly control the financial system to distribute rewards to its core constituencies in normal time, as well as to deliver strong economic growth and to weather the economic or political problems that threaten the party-state’s rules when they arise, all of which serve to maintain its performance-based legitimacy (Xu, 2018).

On the other hand, studies also note that China’s actions vis-à-vis its economy represent the long process of incremental liberalisation (World Bank, 2011; EY, 2019). Cho (2000) and Huang and Ge (2019) support this explanation, noting that the Chinese financial industry as a whole has become more independent from the party-state and efficient, but full liberalisation will only take place once the government manages to incrementally get rid of remaining inefficiency such as the relatively weak institutionalisation of the financial system and the incomplete commercial orientation of the state-owned banks. Against the backdrops of the DCEP deployment and theoretical implications of the digital currency, the financial repression and the incremental financial liberalisation theories form the alternative hypotheses that the analysis of DCEP’s implementation to date will attempt to verify, reject, and confirm.

## 2 METHOD

This qualitative study will first examine the landscape within China’s financial industry and the party-state’s key undertakings in maintaining control over the sector through its policies. It will then discuss the current status of digital currencies in China as well

as a snapshot of international digital currency development. Having garnered the overall big picture of the party-state's control over the pre-DCEP financial industry and the state of a wide range of digital currencies in the country and abroad, the research will subsequently move on to the case study which will analyse the DCEP's policies, features, characteristics, system design and evidence. Findings and conclusion will be provided by making inferences from the evidence gathered.

It is also important to spell out the perceived limitations of this study. This research had also intended to study policies of the local governments in Chengdu, Shenzhen, Suzhou and Xiongan in order to identify any local variations in an attempt to provide additional empirical contributions and findings. However, after attempting to gather data, the unavailability of English-language policy data at the city level and the author's limited proficiency in the Chinese language mean the research must be confined to the policies of the higher, national level, particularly ones surrounding the formation of the DCEP and its corresponding system design.

Due to the time limitation of the research, data and information collection from the Chinese financial industry, party-state's corresponding policies, and the DCEP will be accumulated from different types of publicly available sources. These may include government bulletins, speeches and interviews by authoritative sources, announcements, news articles, analyst reports, etc. It should also be noted that, given the expressed linguistic constraints of the author, data gathering of this study may still involve limitation to a certain degree. This can be particularly pronounced for data and information that are solely published or available in the Chinese language.

### 3 Results and Discussion

#### 3.1 China's Financial Industry and Major Corresponding Governance Policies

This part of the research is divided into four parts: China's Financial Industry and Major Corresponding Governance Policies, the Pre-DCEP Landscape of Digital Currencies in China and Abroad, the Modus Operandi of the DCEP, and Findings.

**China's Financial Industry and Major Corresponding Governance Policies.** Before the reforms were initiated, the People's Bank of China (PBOC), then a part of the finance ministry, was the only bank which served to collect revenues from the state-owned enterprises and coordinate investment allocation in accordance with the party-state's budget plan (Walter & Howie, 2011; Pei & Shirai, 2004). After inception of the Reform and Opening Up in the late 1970s, key moves toward relative professionalisation and liberalisation of the financial sector have been detected with the PBOC's functions becoming more similar to most other foreign central banks. Later, state-owned specialised banks such as the Bank of China, the Industrial and Commercial Bank of China, the China Construction Bank, and the Agricultural Bank of China – collectively known as the Big Four – were allowed to commercialised while the government set up

separated policy banks for policy-related lending in the mid-1990s including the China Development Bank, Export and Import Bank of China, and the Agricultural Development Bank of China (Turner, et al., 2012). Once recapitalisation and non-performing loan revamps took place in the 2000s, the commercial banks were permitted to partially float their shares in the Hong Kong and Shanghai stock markets to further enhance their commercially-oriented business practice (Werner & Chung, 2010). Reinforced the industry's important to the national economy, China's growth throughout this period has been hugely reliant on the credit expansion of the banking sector (Gruin, 2013).

In addition, when China joined the World Trade Organisation in 2001, a five-year time period was established to gradually permit foreign competition within the Chinese financial sector. To create the segregation of duty within the party-state's apparatus, the China Banking Regulatory Commission (CBRC) was also established to be responsible for regulating and supervising the financial institutions, while the PBOC continued to focus on presiding over monetary policy and the stability of the financial system. Qualitatively, the state-owned banks became more commercially driven, and the PBOC also enjoyed a growing degree of independence when it came to the implementation of the monetary policies (Cho, 2000).

Nonetheless, Turner, et al. (2012) note that foreign banks represented only a small percentage of China's total banking industry as they faced regulatory restriction on local currency serviced and issuance of local financial instruments. They also argue that, whereas the ownership of the financial industry in many countries is predominantly in the private hands, the party-state remains substantially influential in the Chinese banking sector through different means. Firstly, it maintains majority of shares in most of largest Chinese commercial banks. By 2014, the government still controlled at least 85% of total assets of the sector (Naughton, 2017). As the majority shareholders, the government effectively has the power to appoint or dismiss senior executives of these financial institutions. Secondly, the PBOC's control of money supply means the government can potentially influence commercial activities such as lending practices and preferences. This can be exercised through, for example, the adjustment Reserve Requirement Ratios (RRRs) and benchmark interest rates. Consequently, depository funds in the banks can be allocated to support growth in industries and state-owned enterprises that the party-state's policy prioritized (Gruin, 2013). A study by Xu and Gui (2013) argues that China's financial sector demonstrates attributes of financial repression because the government's ownership of major banks effectively subsidized investment and production within the Chinese economy at the expense of overall efficiency.

On the other hand, proponents of the financial liberalization explanations can further point out to seemingly corresponding measures. Since the fifth generation of the CCP's leadership took charge in late 2012/early 2013, some important liberalizing measures have taken place (Dong & Xia, 2018; EY, 2019). Firstly, the PBOC allowed interest rate liberalization, removing the deposit rate ceilings. This gave the banks the autonomy to set interest rates to depositors and borrowers, and to compete among themselves for customers. Thus, the party-state's ability to shape state-owned banks' lending and depositing decision was arguably reduced. Secondly, the government decided to remove the foreign ownership cap for banks and allowed foreign banks to set up Chinese

branches and subsidiaries as well as to expand their business scope in the country. Technically speaking, the increase in foreign competitions can affect the traditionally predominant role of the large state-owned financial institutions.

However, deeper investigation still indicates evidence of financial repression within the Chinese banking sector thus far. While the reforms appear to contribute to reduction of financial repression in China, liberalization was argued to be limited in scope and effects (Tan, et al., 2016). China's level of financial repression remained high by global standard even when compared to less-developed economies (Huang, et al., 2018). In addition, it appears that the party-state still maintained a high degree of control over state-owned banks when it comes to the implementation of decisive policies of economic governance (Gruin, 2013). To this end, government's ownership of large banks provides it an important tool in steering the direction and the pace of China's economic development.

**The Pre-DCEP Landscape of Digital Currencies in China and Abroad.** As scholars debated the policy tendency of the party-state on the financial sector, the arrival of digital currencies arguably involves potential ramifications that may influence the very policy tendency (if any). This part of research will be separated into discussion of domestic digital currencies before continuing to outline the prime examples and the nature of digital currencies of foreign origins which may have a huge impact on the Chinese financial industry.

*Domestic Picture: Alipay and WeChat Pay.* China has a large mobile payment market. The Chinese tech giants Tencent and Alibaba were the pioneers of privately-run digital payment. By 2017, they collectively managed more than 90% of China's USD 17 trillion mobile payment transaction (CGAP, 2019). In 2018, there were about 900 million active users of Alipay and almost 1.1 billion for WeChat Pay (Klein, 2020). In 2020, almost 60% of Chinese consumers were already using mobile payments which in the previous year accounted for 64% of personal consumption payment in China (Zhou, 2020a). When Alibaba's e-commerce platform faced trust issues between strangers conducting online transactions, it introduced Alipay in 2004 as an online payment solution and reformatted it into a mobile e-wallet in 2008. Tencent, meanwhile, started off as an online messaging operator. When it entered the online gaming industry, it launched Tenpay in 2005 to handle related online transactions. In 2013, it added Tenpay into its WeChat super-app, and in turn created WeChat Pay. These platforms are connected the consumer's bank account, enabling plethora of transactions from cab hailing, bills payment, and financial investment to be made within their apps. Both companies generally charge between 0.6% and 1% of total value from merchants with significant monthly transaction amount, and 0.1% from consumers withdrawing funds from their e-wallets (CGAP, 2019).

Alibaba then set up Ant Financial as its affiliate on financial businesses including Alipay. Financial services were added to Alipay including Yu'e Bao's money market services, insurance, Sesame Credit, and Ant Micro Loan, which based its credit decision on applicant spending habits that Alipay had accumulated (Xiao, 2017). Ant Financial's Initial Public Offering (IPO), which was supposed to be the world's largest

ever, was cancelled by the Chinese regulator in late 2020, just two days before its planned launch date (Curran, et al., 2020). Almost 600 million Alipay users invested more than USD 168 billion in total in Yu'e Bao, and received investment returns that were greater than deposit interests of a Chinese bank (Xie, 2019). Ostensibly, this represented a move into the state-owned banks' financial services by a private entity with a large consumer database and a comprehensive financial ecosystem of its own. Tencent, on the other hand, is less aggressive in its financial services, but used its social leverage to expand peer-to-peer money transfers and transactions (Xiao, 2017). The large amount of payment value that circulated within Alipay and WeChat Pay also affects banks' long-established role as the transactional intermediaries, depriving them of an important source of revenue and posing the risks of financial disintermediation (Klein, 2020).

**Foreign Digital Currencies.** Digital currencies from abroad, when widely adopted within the country, can potentially bring about digital dollarisation and compromise the monetary sovereignty of the state (Brunnenmier, et al., 2019). The now-cancelled Diem, formerly known as Libra, is one of the plethora of foreign digital currencies that is worth examining. Originally planned to be launched in 2020, so far it has yet to be released. Diem is designed to provide both single national currency or multiple currencies tokens (Diem, 2019). A single-currency token will be backed at parity by the currency's cash, cash equivalents or short-term government-issued bonds denominated in the currency. Different single-currency tokens will in turn support the value of the multi-currency coin. Diem is different from most other cryptocurrencies in a way that its value is supported by the values of fiat money (the respective national currencies). Technically, its multi-currency tokens – being supported by the value of different national reserve currencies – could be more stable than many national currencies, especially during the volatile economic period. Thus, mass adoption of Diem by consumers and businesses within a national jurisdiction can create competition for usage with the domestic currency (Le Maire, 2019) and hamper the government and the central bank's ability to manage the national economy, particularly at the time of crisis.

Many other digital currencies come in the form of cryptocurrencies with notable examples include Bitcoin, Dogecoin, Ethereum. The cryptocurrencies are decentralised systems without central banks or regulators to preside over and monitor the transaction which are made at the peer-to-peer level without any financial intermediaries (Shasky Calvery, 2013). The lack of centralised regulatory authority and underlying assets (unlike Diem) of cryptocurrency mean they can be prone to uncontrolled volatility and speculations (Chavez-dreyfuss, et al., 2021). It also creates a loophole for money to be funnelled out of the national economy and reduces the central bank's visibility of the country's overall monetary flow. In May 2021, the PBOC banned the Chinese companies and financial institutions from providing cryptocurrency services (Reuters, 2021).

**The Modus Operandi of the DCEP.** The DCEP, or the digital yuan, is a CBDC initiated by the PBOC. The central bank found the Digital Currency project group in 2014, established Digital Currency Institute in 2016, and began research project on the DCEP



in the following year (Zhou, 2020a). In the initial stages, Shenzhen, Suzhou, Chengdu and Xiong'an, as well as the forthcoming 2022 Beijing Winter Olympics were selected for pilot programme of the DCEP (Union Bancaire Privee, 2020). It was designed to replace bank notes and coins, not to form long-term digital bank accounts (John, 2020). Unlike many other digital currencies, the DCEP does not use the decentralised blockchain technology (Zhou, 2020). The PBOC can still maintain the presence within the DCEP system, giving it greater control of the flow and the volume of money supply in the Chinese economy (Yeung, 2020), which will be discussed later in this part of the research.

The DCEP is a two-tiered system: the PBOC in the first tier permits the use of DCEP to the second-tiered entities to distribute and circulate the digital yuan to the public (Yeung, 2020). In exchange, they must deposit one yuan reserve to the central bank for every one digital yuan they distribute (John, 2020). This means that, while itself is not a payment product, the DCEP may host and promote different payment products (Zhou, 2020). The arrival of the DCEP with its multitude of second-tiered parties offering payment products can challenge the duopoly in the digital payment market currently enjoyed by Alipay and WeChat Pay. On top of that, the two-tiered system effectively prevents financial disintermediation (the removal of banks as the middlemen in the financial system) and its associated risks (Zhou, 2020a).

Former PBOC's governor Zhou Xiaochuan (2020) describes the roles and responsibilities of each tier of the DCEP. The central bank, as the first tier, has a few main responsibilities and supervisory powers. Firstly, it will be in charge of maintaining the stability of the digital yuan through capital or reserve requirement of the second-tier parties like it does to the commercial banks in managing the money supply of physical cash. Secondly, it will govern the settlement and clearing infrastructure. Thirdly, it must promote the interoperability of different payment products – which, crucially, would make monopolistic power of certain payment products much harder to achieve. Finally, it must develop backup plans to deal with emergency and contingent events to ensure the DCEP can function smoothly regardless.

The second-tier entities are commercial banks, telecom firms and other online payment platform providers which will provide different payment products. As of December 2020, China Mobile, China Telecom, Ant Group, Tencent, and, crucially, the Big Four state-owned commercial banks are taking part in the second tier. Individual payment products within the second tier will be responsible for maintaining sufficient capitals to back up the digital currency circulation within their payment products. This is important to note that, by looking at the second-tier parties and the reserve requirement, the competition rules among the tier two players appear to favour state-owned banks with comparatively large volume of consumer deposits, particularly the Big Four who are among the world's largest banks. Next, the second-tier distributors must also make sure that the user data privacy will be protected and money laundering activities curtailed. Finally, as providers of the digital payment products, they must ensure continued operation by carrying on with investing in the payment products' technology and equipment.

The DCEP also has some key advantages over existing domestic options like WeChat Pay and Alipay. First, unlike the two mobile payment platforms, the DCEP

system can transact offline payments, enabling digital money transfers to be made even in the off-the-grid areas and on the plane (Zhou, 2020a; Wall Street Journal, 2020). Technically, this would allow the DCEP to entirely replace the use of physical cash as the consumers and businesses will be able to transact anytime like normal cash payment without having to rely on internet coverage (Yeung, 2020). Secondly, based on the evidence from the partial rollout of the DCEP in the five cities, merchants were incentivised to choose the digital yuan over that mobile and card payment methods because, unlike WeChat Pay and Alipay, it charged no transaction fees (Wall Street Journal, 2021). Thirdly, due to its status as a central bank-approved digital legal tender, it will be accessible to consumers without Chinese bank accounts which were a condition for setting Alipay and WeChat Pay's e-wallet (Sharma, 2020). Finally, the DCEP's legal tender status bestowed by the PBOC also makes public adoption inside China much more feasible than digital currencies of foreign origins.

The technical setups of the DCEP give significant monitoring presence to the PBOC on what are being transacted digitally. While the marketers cannot see what consumers spend and different users cannot see the identities of others (Wall Street Journal, 2021), the Chinese regulatory bodies will be able to access transaction data under controllable anonymity (Wall Street Journal, 2020), especially for anti-money laundering purpose (Zhou, 2020). Qualitatively and quantitatively, widespread adoption of the digital yuan will allow the PBOC to better see the circulation of money around the Chinese economy, providing it with firsthand data for policy responses and tools to track illegal transactions (John, 2020).

### 3.2 Findings

As the phenomenon continues to develop, evidence from the partial rollout of the DCEP and its (occurred and projected) impacts to the existing digital currencies and financial landscape in China appears to support the hypothesis for the financial repression theory. This is because, in line with the financial repression tenet, the DCEP will enhance the party-state's control over the financial sector and the economy in many ways. Firstly, the setup of the DCEP provides the PBOC with the channel to have a greater visibility to monitor money circulation digitally. Secondly, the inclusion of the state-owned banks, particularly the Big Four, into the second tier of the DCEP in effect reduces the perceived threats to existing architecture of the financial industry posed by financial innovations of private firms such as Ant Group's Alipay and Yu'eobao. It helps also shoring up the banks' role in and relevance to the Chinese economy, particularly their continuity to serve as conduits for reallocation of resources for the party-state. Thirdly, the early, widespread adoption of the DCEP with a well-developed ecosystem would also inhibit the risks of digital dollarization from the future introduction of foreign digital currencies.

While it would be premature to assume that their leverage in the financial market will entirely be wiped out, non-state-owned players like Alipay and WeChat Pay faced a few detrimental effects brought about by the DCEP. Despite the inclusion of private firms into the second tier, the DCEP will accommodate several parties including the

well-resourced Big Four that can distribute the digital yuan, creating greater competition to their mobile payment platforms and e-wallets. The competition for usage between the DCEP, and Alipay and WeChat Pay also favors of the former's payment products due to incentives in place for their widespread adoption such as the absence of transaction fees, the access for unbanked consumers, and the viability for offline payments. Any profound migrated usage from Alipay and WeChat Pay's own platforms to the DCEP would inhibit these companies' further capital accumulation for greater expansion into other financial services that were traditionally the cash cows of the state-owned banks. In the process, the inception of the digital yuan helps containing the real or perceived threat to the business viability of the state-run financial institutions, enabling the party-state to continue to control the financial sector through its majority ownership of these banks. Even though Alipay and WeChat Pay were part of the second tier, PBOC's rules for capital and reserve requirements forestall the likelihood that they could use their presence in the DCEP to accumulate enough capitals from consumers, relative to the Big Four, and gain leverage from their footprint in the financial sector.

Contrary to the theoretical assertions that a CBDC can bring about reduced monetary control of the authority, or the financial disintermediation of the commercial banks, the structure of the two-tiered DCEP and the largely state-owned Chinese banking industry suggest the digital yuan will produce the opposite effects. The DCEP's concept of controllable anonymity allows the PBOC to oversee the flow of digital yuan in both quantitative and qualitative aspects. The central bank can also impose capital and reserve requirements on second-tier operators like it does to commercial banks when it comes to physical money. In addition, the inclusion of banks as the distributors of the digital yuan means disintermediation is effectively prevented. This is on top of the fact that, unlike many other countries, the Chinese banking sector is still a very much state-owned industry. From the ownership and control point of view, the role within the DCEP that is accorded to the state-owned commercial banks helps preserving their relevance to the financial system.

Although the financial repression is theoretically believed to generate business discrimination and be bad for economic efficiency, the introduction of the DCEP represents a caveat. It is vital to note that some government's repressive financial intervention may be helpful in economies that do not yet have a fully effective and efficient financial system (Huang & Ge, 2019). Under this notion, policies on reforms and liberalization can take place, but under continued control by the party-state (Gruin, 2013). Thus, to carry on with this path, the emergence of a monopolistic, non-state-owned entity inside the financial system which could potentially challenge that very control must be prevented.

To this end, the introduction of the DCEP gives the party-state greater control of the economy by expanding its reach through state-owned second tier parties into the digital sphere, and at the same time increases competitions within the digital currency market – a rapidly emerging field within the financial sector. From the perspective of the party-state's control of the banking sector, the financial repression as a result of the DCEP does not always lead to inefficiency. In contrast, data to be accumulated by the party-state means the policy intervention likely be more spot on. While the issues of user privacy merit greater scrutiny, the possessed data increase the probability that future

targeted macro-economic measures becoming economically more effective and efficient.

## 4 Conclusion

This study represents a groundwork for future researches on the impacts of digital currencies both in China and elsewhere. In the Chinese case, it argues that the evidence thus far of the DCEP seems to conform with the explanation put forward by the financial repression theory. This is most notable in the fact that the structure of the digital currency enhances the ability of the party-state (through PBOC) to monitor, control and supervise the flow of digital yuan – something that the central bank could not have managed to achieve with the physical cash. In addition, it also maintains the role and relevance of state-owned commercial banks, and forestalls the risks of influential players outside the party-state's control emerging within the economically strategic financial sector.

Nonetheless, the DCEP is different from most other financially repressive policies in some important aspects. First, it promotes competitions among digital yuan payment products and inhibits the perceived duopolistic nature of the existing, private-dominated landscape of the digital currency market land. Secondly, data to be possessed by the party-state give it the tool to increase the effectiveness of its macro-economic policies which in turn may boost the overall efficiency of the economy.

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