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China

Authors Dr Lerong Lu, Lecturer in Law and Director of LLM Law & Technology, The Dickson Poon School of Law, King's College London. Hang Chen, PhD Candidate, University of Bristol Law School. Email: lerong.lu@kcl.ac.uk and h.chen@bristol.ac.uk

DIGITAL YUAN: THE PRACTICE AND REGULATION OF CHINA'S CENTRAL BANK DIGITAL CURRENCY

Currency, or its more commonly known name – money, is at the heart of countries' financial systems. Throughout history, currency has developed from physical commercial commodities to precious metals like gold and silver, and then to central bank-issued paper notes. The past decade has seen the rapid rise of cryptocurrencies such as Bitcoin, Ethereum, and Facebook's Diem (previously known as Libra), posing great legal and regulatory challenges for policymakers and legislators.¹ More recently, global central banks have been leveraging on the financial technologies and testing Central Bank Digital Currencies (CBDCs) to modernise the fiat money system.

Clearly, the importance of CBDCs has been well recognised by policymakers, scholars, and think tanks. According to the Bank for International Settlements, 80% of 66 surveyed central banks were engaging in the work relating to CBDCs, with 40% of them having progressed from conceptual research to experiments or proofs-of-concept and another 10% having developed pilot projects.² Some countries have made explicit plans to launch their own state-backed digital currencies, among which China is one of a few major economies starting this pioneering financial experiment. In 2014, the People's Bank of China (PBOC) started to test the feasibility of digital fiat currency, and in 2016, it established the PBOC Digital Currency Research Institute. Based on China's market conditions, the PBOC developed a quasi-production-level prototype of CBDC. In October 2020, the PBOC publicly launched the pilot experiment of CBDCs in Shenzhen which is the fully digital version of Chinese Yuan or Renminbi. This Briefing introduces and analyses China's CBDC pilot project – the digital yuan, and focuses on its legal concepts, functions, design characteristics, as well as major regulatory concerns.

THE RISE OF DIGITAL YUAN AS CHINA'S CBDC

Distinctive from privately issued cryptocurrencies like Bitcoin, CBDCs are a new form of money being issued digitally by central banks as legal tender.³ Legally speaking, they represent cash like direct claims on the central bank. The Bank of England defines CBDCs as an innovation in both the form of money provided to the public and the financial infrastructure on which

payments can be made.⁴ In China, the digital currencies issued by the People's Bank of China (PBOC) are referred to as "E-CNY" which stands for "digital yuan (or renminbi)". E-CNY is regarded as legal tender – that is real money in the legal and economic sense. Previously, the Chinese CBDCs had been known as DC/EP (Digital Currency Electronic Payment) until its recent rename to E-CNY by the PBOC. In November 2020, Mr Zhou Xiaochuan, the former governor of the PBOC, explained the differences between DC/EP and E-CNY by stating that the concept of the DC/EP was a form of two-tier research and constituted a pilot project plan with various potential payment products, while the E-CNY was the chosen product at the end of the process, ie the digital money in the wallet.⁵ The former vice president of the Bank of China, Mr Yongli Wang, also expressed that the name change was to avoid a common misunderstanding that digital yuan will create a new monetary system other than existing renminbi.⁶ Digital yuan, initially used as a substitute for cash to compete with other digital currencies, has the potential to become a regulatory toolkit if it is used on a large scale.

THE RATIONALE FOR DIGITAL YUAN

First, digital yuan substitutes cash in circulation (in economics, it is known as M0). Digital yuan works as M0 to substitute cash as the basic layer of currency on most occasions. M0 refers to the money in people's daily use in commercial transactions, which is different from the reserve money stored in banks. It is monopolistically issued by the central bank in a sovereign state and is categorised as money in the narrowest sense since there are other widely accepted means of payments like cheques and credit cards. Judged by liquidity, currencies are divided into different layers: M0 is the direct claim on the central bank with the highest liquidity; M1 contains both currency in circulation and tradable deposits, which represents the direct purchasing power of society as a whole; M2 generally consists of M1 and other non-tradable deposits such as the time deposit; and finally, M3 consists of M2 and other current assets such as government bonds, bank acceptances, and commercial papers. Accordingly, as E-CNY is defined as M0, it should, on one hand, be seen as direct purchasing power in the commodity market and be categorised as cash (rather than deposit or other current assets) when the PBOC calculates the inflation rate and when making monetary policy. On the other hand, the essence of issuing digital yuan is the digitalisation process of cash with its intrinsic value being as stable as legal tender.

Second, digital yuan targets the retail sector. CBDCs are generally divided into two categories: retail and wholesale. The design of DC/EP, the prototype of digital yuan, targeted retail transactions.⁷ At retail level, the simplest and most common model for completing transactions is the direct cash payment without any settlement activities through banks or other financial institutions. It is an initial and immediate method of transaction, during which services or goods are transferred from buyers to sellers without the involvement of any third-party intermediaries. In this scenario, the advantages of cash payments

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are obvious, such as flexibility, speediness, and wide acceptance. It makes cash the ideal method of payment in retail transactions, which is also what E-CNY intends to achieve. In addition, the electronic version of renminbi can reduce customers' storage costs and the risk of carrying cash. It cuts the transfer costs between different commercial banks and mitigates the time lag. E-CNY can also lower a country's public expense for maintaining banknotes and coins. It also alleviates criminal activities relating to paper money transactions such as counterfeiting and money laundering.

Third, digital yuan relies on China's "two-tier banking system" that encompasses the PBOC and financial institutions such as commercial banks. Major payment platforms and telecom operators are also involved in distributional activities. The issuance of E-CNY by the central bank represents direct liabilities between financial users and the PBOC, leading to the disintermediation of financial institutions.⁸ However, the PBOC does not intend to replace the intermediary role of financial institutions. Mr Qian Yao, the former director of the PBOC's DC/EP project, suggested that the introduction of CBDC was not aimed at disrupting the current currency issuance mechanism; on the contrary, it is necessary for the PBOC to mobilise and co-operate with commercial banks to promote the use of CBDC, to allocate financial risks, and to accelerate innovation.⁹

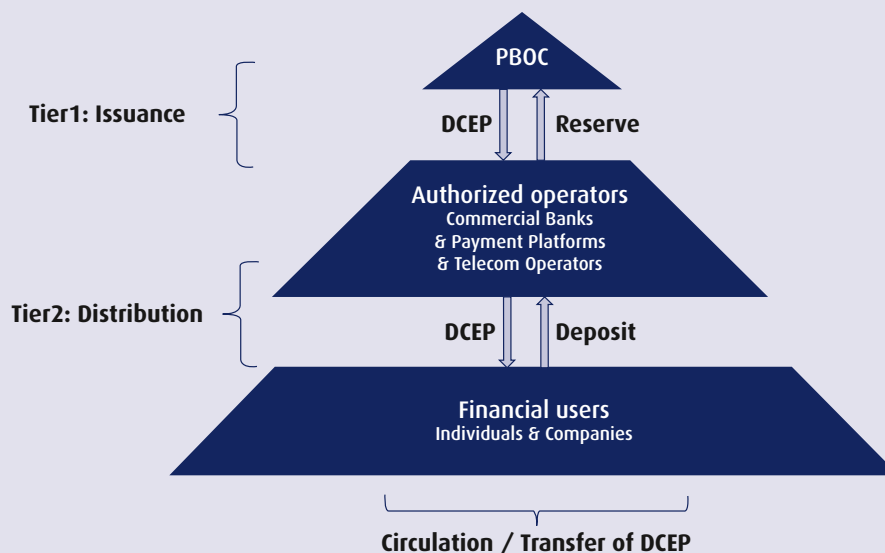
Under the two-tier system of DCEP, the core elements of digital yuan can be summarised as "One currency, two funds, and three centres." "One currency" refers to the E-CNY, issued by the central bank and backed by the state's credit. "Two funds (databases)" refers to the issuance database where the PBOC stores the issuance fund and the database where commercial banks manage their data of E-CNY. The central bank has established a digital currency fund to directly issue electronic money to commercial banks and other agencies, which is recorded in commercial banks digital currency settlement systems. Meanwhile, commercial banks would pay that same amount of digital currency issuance back to the central bank. The issuance fund of E-CNY is more like a currency conversion fund rather than the traditional deposit reserve. "Three centres" stands for the Registration Centre, the Authentication Centre, and

the Analysis Centre. It used to be the Banknotes Identification Centre of the PBOC which undertook the function of identifying counterfeit banknotes. Now, it has been reformed to become the Registration Centre as there is no need to identify banknotes anymore for digital currency. The Authentication Centre is asked to record the issuance, ownership, transfer, and withdrawal of digital yuan, while banks and other financial institutions specifically manage the daily operation of the payment and settlement systems. The Authentication Centre also authenticates the identity of payees and payers. The Analysis Centre conducts data analysis regarding abnormal payment and settlement behaviours of financial customers. The three centres are all managed by the PBOC.

MAIN CHARACTERISTICS OF DIGITAL YUAN

- Unlimited legal credit:** The digital yuan is the fiat currency issued by the central bank. As legal tender, it is subject to the same legal indemnity regime as physical currency consisting of banknotes and coins. Accordingly, when digital yuan is used to pay any public and private debts within the territory of China, no units or individuals could refuse to accept it if the conditions for acceptance are met.
- Loosely coupled account:** The digital yuan is based on the general account system. It supports the loosely coupled accounts of banks, which means that an E-CNY wallet can open without a bank account, and individuals are able to decide whether or not to connect it to a bank account. Thus, the E-CNY and its related services will be accessible for those who are not able to have bank accounts, which contributes to a more inclusive financial system.
- Controllable anonymity:** As for privacy and data protection, the authentication of E-CNY users' identity relies on the "controllable anonymity" mechanism, the design of which makes the full use of the digital currency's special features: "front-end voluntary" and "back-end real-name". It is anonymous when transactions are made among users, however, all transaction data will be kept by the central bank under users' real names.

FIGURE 1: THE TWO-TIER SYSTEM OF DCEP DESIGN IN CHINA¹⁰



- No interest bearing and exchange fees:** Currently, the development of digital yuan is in its initial stage: substitute of cash. There has been no interest-bearing design so far. E-CNY seeks to maximise social benefits to make it more accessible for everyone. To build the public financial infrastructure, the PBOC has made the policies consistent with cash for digital currency, a free digital currency value transfer system. All issuing, distribution, and exchanging services will not cost anything for users.

THE REGULATION OF DIGITAL YUAN

This section evaluates the regulation of Chinese CBDCs compared with that of traditional money. Although e-CNY has the same value as banknotes and coins and the issuance of E-CNY is basically in line with China's existing legal framework, its electronic nature has caused some regulatory challenges.

The E-CNY is mostly positioned at M0, so it in principle complies with Chinese laws and regulations relating to cash management, including the Law of the PRC on People's Bank of China (2003), Law of the PRC on Commercial Banks (1995) and the Regulation of the PRC on the Administrations of RMB (2000). However, as E-CNY has unique digital characteristics without physical form, it is operating beyond the scope of the current legal framework and regulatory rules for traditional physical currencies. For example, the current Law of the PRC on the People's bank of China was issued on 27 December 2003 and came into force on 1 February 2004 at a time when there were no relevant concepts relating to digital currencies, let alone any detailed articles dealing with the issuance and transaction of E-CNY.

The format of renminbi has not been specially stipulated under the Commercial Banks Law, which means it does not prohibit the digital form of renminbi. However, Art 2 of the Regulations on the Administration of Renminbi (2000) states clearly that the form of renminbi includes banknotes and coins. It seems to suggest that legitimate Chinese currencies can only have a physical form. Article 17 of the banking law has clarified the unit of the Renminbi which is to be "Yuan", "Jiao" (1/10 Yuan) or "Fen" (1/100 Yuan). There are no rules stipulating the specific units of the digital yuan. In the current pilot scheme, digital "Yuan" is by default the only unit available. Whether digital "Jiao" or "Fen" in retail transactions need to be specially designed is worth exploring in the future.

As for the penalty rules for counterfeiting currency, the criminal behaviours of counterfeiting digital currency would be completely different from that of traditional currencies. Counterfeiting can be achieved through technical means such as attacking the CBDC's registration and authentication systems or cracking the digital currency algorithm. Considering the digital characteristics of CBDCs leads to the easiness and reduced cost of making fake money, the penalty limit of financial crime perhaps needs to be substantially increased. This regulatory gap has to be closed before the official national rolling-out of digital currency. Therefore, a revised draft of the current banking law is urgently needed.

Moreover, it is also necessary to formulate detailed regulatory requirements for digital renminbi, such as its definition, entry criteria, data risks, and regulatory instruments at domestic level. The explicit rules will help individuals, businesses, and governments adapt to the profound changes brought by E-CNY's issuance and circulation system, as China will potentially be the first major economy that fully endorses CBDCs. At global level, multilateral regulatory agreements on CBDCs' cross-border transactions are called for to monitor the international circulation of digital currencies.

CONCLUSION

The era of CBDCs is arriving. The latest experiments of digital yuan in China has demonstrated the advantages of digital currencies over traditional banknotes, and digital currencies are expected to gain greater popularity due to the COVID-19 pandemic that has virtualised many economic activities. Despite CBDC's economic benefits and social welfare, policy makers, practitioners and researchers should also pay attention to legal and regulatory issues surrounding CBDCs such as how they fit into existing monetary and banking laws that were promulgated for physical money. ■

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- Figure 1 is compiled by the authors.

Finland

Authors Paula Airas, Counsel, Dispute Resolution & Insolvency and Atte Kaira, senior associate, Finance & Restructuring, Roschier

EU RESTRUCTURING DIRECTIVE: POSSIBLE IMPLICATIONS ON THE FINNISH COMPANY REORGANISATION ACT

Finnish insolvency legislation currently provides for two formal main insolvency regimes for financially distressed companies: bankruptcy (Fi: *konkurssi*) under the Finnish Bankruptcy Act (2004, as amended, Fi: *konkurssilaki*) and company reorganisation (Fi: *yrittysaneeraus*) under the Finnish Company Reorganisation Act (1993, as amended, Fi: *laki yrityksen saneerausesta*). Bankruptcy is a creditor-driven liquidation proceeding: its primary objective is to realise the assets of the insolvent debtor and distribute the proceeds to the debtor's creditors. Company reorganisation, in turn, is intended