

IMPLICATIONS OF CHINA'S DIGITAL YUAN INITIATIVE

- POTENTIAL IMPACT AND FUTURE FOCAL POINTS -

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SUMMARY

- China is planning to issue its central bank digital currency (CBDC) ahead of other major countries in the world. The digital yuan, or Digital Currency Electronic Payment (DCEP), is to put into trial use in limited areas setting the Beijing Winter Olympics' opening in February 2022 as a target. However, not many anticipate that the introduction of DCEP will change China's retail payment trends drastically in the short term.
- Depending on its system design, DCEP could transform the competitive structure of China's mobile payment market and the revenue structure of private payment service providers. The system design will possibly be disadvantageous for private payment service providers in China because of the state-led economic structure.
- If DCEP overcomes technological challenges and proves useful for the increased security and convenience of payment and financial inclusion, CBDCs of the Chinese model may create a leapfrog effect and spread to other emerging countries.

China is planning to issue its central bank digital currency (CBDC)—referred to as the digital yuan or Digital Currency Electronic Payment (DCEP)—ahead of other major countries in the world. The DCEP pilot project is proceeding in four cities including Shenzhen in Guangdong province, along with the venues planned for the Beijing Winter Olympics. This report aims to provide a perspective on China's DCEP by (1) summarizing the basic characteristics and mechanism, supposed purpose of issuance, and background on the basis of papers and lectures by officials of the People's Bank of China (central bank), and (2) conducting an initial analysis of the expected impact of the introduction of DCEP, based on comments by local experts and field interviews.¹

1. THE CHARACTERISTICS AND MECHANISM OF DCEP AND RECENT DEVELOPMENTS

(1) Background and recent developments

The People's Bank of China (PBOC) began research on digital currencies in 2014 and established the Digital Currency Research Institute in 2017. Subsequently, Facebook Inc. announced the concept of its digital currency Libra in June 2019. In the summer of the same year, PBOC officials started to proactively disseminate information on DCEP, raising the profile of its digital currency. In May 2020, the Governor of the PBOC Yi Gang said that there was no timetable for an official launch (of DCEP), but acknowledged that its trials were taking place in four cities—Shenzhen, Suzhou, Xiong'an, and Chengdu—and the venues planned for the Beijing Winter

¹ In August 2020, Mitsui & Co. Global Strategic Studies Institute and an economic research team from Mitsui & Co. (China) Strategic Planning Department jointly conducted interviews (face-to-face or online format) in Beijing, Shanghai, and Hong Kong with experts from seven companies (people), including two Chinese think tanks, one Chinese journalist, three Japanese financial institutions, and one Japanese think tank.

Olympics.² The PBOC and major state-owned commercial banks are leading the pilot project in cooperation with prominent Internet service providers, in order to test various forms of use.³

(2) Basic mechanism and characteristics

Among CBDCs, DCEP is categorized as a retail-type currency (Figure 1).⁴ The PBOC has not revealed the details about China's DCEP issuance plan, but some papers, lectures, and other materials by PBOC officials show several basic characteristics and a mechanism (Figure 2).⁵ This report primarily discusses the new findings in the latest article by the PBOC's Deputy Governor Fan Yifei (published in September 2020),⁶ while reflecting on main previous studies.⁷

Figure 1: Classification of Digital Currencies and Major Examples

	Issuer	
	Private	Central Bank
Retail-type (For the public)	Alipay, WeChat Pay, Suica, Libra	digital yuan, e-krona, Bakong (Cambodia)
Wholesale-type (For financial institutions)	JPM Coin (JPMorgan Chase)	Project Stella (Joint research project by BOJ and ECB)

Note: Including those currently being researched and planned

Source: Created by MGSSI based on materials by the Bank of Japan

Figure 2: DCEP Basic Characteristics and Mechanism

Legal tender	Cannot be rejected in usable environment
Digital format	Can be used through digital wallets
Retail-type	Can be used as an alternative to cash for small payments
Two-tiered operating system	Issued by PBOC and circulated through commercial banks
Manageable anonymity	Transaction details can be kept anonymous to related parties other than PBOC
Loosely tied to savings account	Payment possible without using savings account
No interest	Control of fund outflow from savings account

Source: Created by MGSSI based on studies and lectures by PBOC officials

In his article, Fan defined the “two-tier operating system” more clearly. By his definition, a commercial bank with a strong capital base and high technological capabilities will act as a “designated operating agency” to open digital wallets and convert to and from DCEP for customers. Additionally, those agencies will be responsible for services such as payment products, innovation, market development, system development, business processing, and

² DCEP worth 200 yuan per person (a total of 10 million yuan or about USD 1.53 million) was distributed for free to 50,000 residents of Shenzhen from October 12 to 18, 2020, for trial use of the digital yuan at 3,389 stores.

³ In June 2020, ride-hailing app Didi and, in September, subsidiaries of online shopping service JD.com announced a partnership with PBOC's Digital Currency Research Institute. Reports say that food delivery app Meituan and others have also joined the trial.

⁴ The classification of digital currencies is based on materials published by the Bank of Japan (BOJ). “Future of Payments Forum: Central Bank Digital Currency and the Future of Payment and Settlement Systems,” Bank of Japan, February 2020, page 2.

⁵ This report mainly uses (1) news releases by PBOC's review committee on digital currency (2016), (2) an article by PBOC's Deputy Governor Fan Yifei (2018), (3) a report by Di Gang, deputy head of the PBOC Digital Currency Research Institute (2018), (4) a lecture (August 2019) by Mu Changchun, Head of the PBOC Digital Currency Research Institute (Deputy Director of the PBOC's Payment and Settlement Department at the time), and (5) another article by Deputy Governor Fan Yifei (September 2020) as PBOC's materials in the form of verifiable written records.

⁶ Fan Yifei, “关于数字人民币 M0 定位的政策含义分析” [Analysis on the policy implications of the positioning of digital RMB M0] September 2020 https://www.financialnews.com.cn/pl/zj/202009/t20200915_200890.html (Accessed on October 27, 2020. Same below)

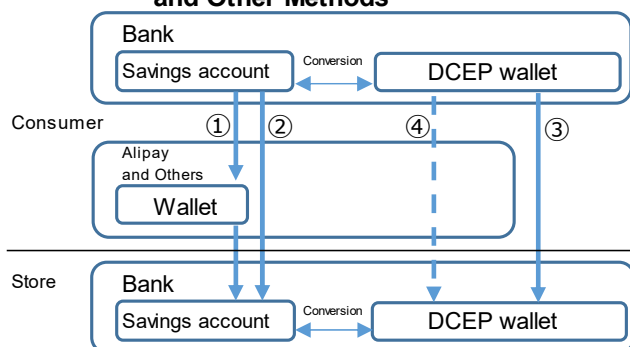
⁷ Eiichi Sekine (2020), “The Overview and Outlook of PBOC's Plan to Issue DCEP” [in Japanese], *Nomura Capital Markets Quarterly*, Summer 2020; Chi Hung Kwan, “China Aiming to Issue Central Bank Digital Currency—Expected Macro-Level Effects” [in Japanese] (December 27, 2019); Masashi Nakajima (2020), *Virtual Currency vs. Central Bank: The Next Champion of Digital Currency* [in Japanese], Shinchosha, Chapter 7.

maintenance, in cooperation with other commercial banks and the like.⁸ Major state-owned commercial banks are expected to not only handle the core operations such as opening digital wallets and providing DCEP conversion, but also offer payment services in collaboration with private payment service providers.

Fan's article also states that the PBOC and designated operating agencies will jointly develop a wallet platform, while realizing their own visual recognition and characteristic functions. Mu Changchun, Head of the PBOC Digital Currency Research Institute, said in his lecture in August 2019 that several designated operators were adopting different technical paths and that a good path to finally be accepted by the market would eventually win the race. This suggests his expectations for a rivalry among multiple major state-owned commercial banks to generate innovation.

Regarding the difference between DCEP and private digital payment services, Mu said that the boundary between the two would not be clear to the public, adding that the basic DCEP payment function would be similar to QR code payment systems such as private payment giant Alipay. However, DCEP will be managed in a digital wallet separate from the savings account, and the payment flow should be different from Alipay and the like (Figure 3). Alipay and other methods are linked to a user's savings account for payment (1 and 2).⁹ In contrast, for payment with DCEP, the money in the savings account will be converted to DCEP first (3). Whether DCEP payment through Alipay and other methods will be possible is one of the key issues (discussed later).

Figure 3: Diagram of DCEP Payment via Alipay and Other Methods



Note: Arrows show flow of money
Source: Created by MGSSI

2. SUPPOSED PURPOSE AND BACKGROUND OF ISSUANCE

PBOC officials provide various direct and indirect indications to the aims (benefits) of issuing DCEP in their papers and lectures (Figure 4). From a domestic perspective, issuing a retail-type CBDC would make payments efficient and safe (including a reduction in cash management costs), which is one of its general benefits. Other possible benefits include financial inclusion, prevention of financial crime (money laundering, terrorist financing, and tax evasion), greater anonymity than private digital payment services, oligopoly prevention in the mobile payment market, and use for monetary policies. Of these, crime prevention and high anonymity are based on the characteristic of “manageable anonymity” (i.e., transaction data can be made anonymous to related parties other than the PBOC).¹⁰ From an international perspective, PBOC officials have also referred to the protection of currency sovereignty and the internationalization of the yuan.

From a domestic point of view, it is summarized that the aims (benefits) of issuing DCEP address the following current situations and challenges related to China's retail payment market.

⁸ Earlier explanations only stated that PBOC (the first layer) carries out conversions to DCEP for banks and other operating agencies (the second layer) and these organizations carry out conversions for the public. They did not explain the relationship between the “banks” and “other operating agencies” in the second layer. Mu Changchun, “揭開央行數字貨幣的面紗” [Unlocking features of the central bank digital currency], August 2019.

⁹ The basic payment in Alipay and other services can be divided into (1) payment after transferring funds from the savings account to the wallet and (2) bank transfer from a linked savings account.

¹⁰ In his 2020 article, Fan argues about manageable anonymity that the PBOC has full information and can use big data, artificial intelligence and other technologies to analyze transaction data and fund flows, and prevent illegal and criminal activities.

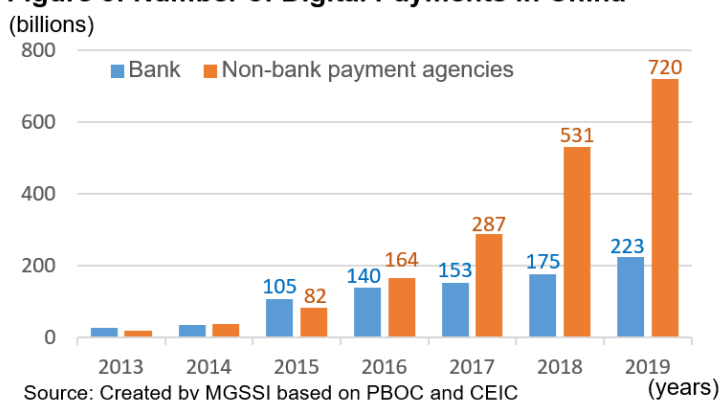
Figure 4: Direct/Indirect References to the Aims (Benefits) of Issuing DCEP

	Domestic Perspective						International Perspective	
	Efficiency/safety	Financial inclusion	Anti-crime measures	High anonymity	Anti-oligopoly	Monetary policy	Currency sovereignty	Internationalization of yuan
PBOC press (2016)	○	○	○					
Article by Fan Yifei, Deputy Governor of PBOC (2018)	○	○	○	○		○	○	○
Report by Di Gang, deputy head of the PBOC Digital Currency Research Institute (2018)	○	○		○	○			
Lecture by Mu Changchun, Head of the PBOC Digital Currency Research Institute (2019)	○	○	○	○		○	○	○
Article by Fan Yifei, Deputy Governor of PBOC (2020)	○	○	○	○	○	○	○	

Source: Created by MSGGI based on the five materials mentioned in the above table

First, although the mobile payments' prevalence in China has led to a decline in the daily use of cash, the amount of cash in circulation is continuously increasing. Cash is reportedly used in many suspicious transfers of money. China's cash in circulation at the end of 2019 was 7.7 trillion yuan, a 5.4% increase year on year, which means the absolute amount is on the rise even though a percentage of cash in circulation to nominal GDP declined to 7.8%. In addition to more stringent monitoring of large cash transactions, the PBOC intends to promote the use of digital yuan, which allows the Bank to keep track of the transactions. The aim is apparently to strengthen countermeasures against crime, including illicit outflows of funds (corresponding to "Anti-crime measures" in Figure 4).¹¹

Second, China's mobile payment market is an oligopoly of private payment giants Alipay and WeChat Pay. A comparison of e-payment transactions between banks and non-bank payment service providers shows that banks, which handle large corporate payments, remittances, and payroll payments, significantly outperform non-banks in terms of value. By contrast, in terms of volume, the non-banks far surpass the banks due to the rapid growth of small mobile payments (Figure 5).¹² Of the total mobile payments, Alipay accounts for 55.4%, and Tencent affiliates, including WeChat Pay, for 38.5% (Figure 6).¹³ Given that private companies have a more-than-zero possibility of business failure, the oligopoly formed by two such companies could lead to a situation where safety of payments is lost. Besides tightening regulations for private payment service providers,¹⁴ the PBOC may also be positioning DCEP as a backstop (safety net) for the payment system (corresponding with "Efficiency/safety" and "Anti-oligopoly" in Figure 4).

Figure 5: Number of Digital Payments in China

Figure 6: Mobile Payment Share in China

(Q2, 2020)

Payment Service Providers	Share
Alipay	55.4%
Affiliates of Tencent (incl. WeChat Pay)	38.5%
Others (JD Finance, Suning Pay, etc.)	6.1%

Note: For third-party payments other than banks

Source: Created by MGSSI based on Analysys

¹¹ In June 2020, PBOC issued a notice stating the introduction of trials in three areas, including Hebei, to make it mandatory for banks to report to PBOC about cash withdrawals of 100,000 yuan (about USD 15.3 thousand) or more and other similar translations.

¹² Eiichi Sekine (2019), "The Policy Framework of China's Third-Party Payment Field and Market Development: With a Focus on Mobile Payment Systems" [in Japanese], Gekkan Shihon Shijo [Capital markets monthly], April 2019, No. 404, page 8.

¹³ Performance for the second quarter of 2020 as reported by Analysys, a Chinese research firm.

¹⁴ In January 2019, PBC made it mandatory for private payment service providers to deposit 100% of customer deposits as reserve funds.

Thirdly, a large population of China, particularly in rural areas, do not have access to banks. China's banking network had a geographical coverage of 96.3% at the end of 2018. The proportion of the adult population that have payment accounts at banks and the like reached 88.6% in 2018.¹⁵ That said, a simple calculation using the population of China over 18 years of age (1.1 billion people as of 2015) based on *UN World Population Prospects 2019* shows that 120 million people in the country do not have a bank account.¹⁶ The PBOC appears to envision DCEP as a means of providing financial services to such people (corresponding with "Financial inclusion" in Figure 4).¹⁷

3. EXPECTED IMPACT ON USERS AND PROVIDERS OF PAYMENT SERVICES

This section summarizes how the formal introduction of DCEP will affect users (consumers, stores) and providers (large state-owned commercial banks, private payment service companies) of payment services, on the basis of local experts' papers and interviews.

(1) Impact on consumers and stores

For consumers (payers), the payment fees are borne by the stores, and Alipay and the like offer high convenience other than payment functions as well. Thus, "there is no strong need for DCEP on the consumer side" (a Chinese journalist). Major state-owned commercial banks have implemented DCEP wallets on a trial basis, so that their employees can use the digital yuan when sending money to each other, or while in the cafeteria and shops within the bank. However, "they say 'Alipay and WeChat Pay are good enough,' and rarely use DCEP" (a private Chinese think tank). According to Fan's articles and others, DCEP differs from private-sector electronic payments in terms of (1) its creditworthiness and legal tender status, (2) manageable anonymity, and (3) loose linkage with savings accounts, but these factors would not become incentives for consumers to use DCEP.¹⁸ If the digital yuan is equipped with an offline payment function, it would benefit consumers at such times as when the communication network is temporarily unavailable during normal times (e.g., forgetting to pay communication fees) or when the communication network is disrupted in the event of a disaster. However, it has been pointed out that technical challenges need to be addressed.¹⁹

For stores (payees), DCEP would provide the benefit of shortening their collection periods, because payments are completed (finality) the moment DCEP is delivered as legal tender. Regarding the payment fee issue, opinions seem to be divided.²⁰ Fan's article states that commercial banks will not charge service fees on individual customers for DCEP conversion, but does not clarify on payment fees. If payment fees are waived for DCEP payment, it may encourage stores to invite customers to pay using DCEP. However, since Alipay and other methods already have low payment fees,²¹ and also provide non-payment financial services, such as low-

¹⁵ PBOC "中国普惠金融指标分析报告(2018年)" [China inclusive finance indicator analysis report (2018)].

https://finance.sina.com.cn/money/bank/bank_hydt/2019-10-21/doc-iicezuev3745583.shtml

¹⁶ The World Bank reported that 225 million people in China did not hold an account with financial institutions in 2017. International Bank for Reconstruction and Development/The World Bank, "The Global Findex Database 2017" (2018), p.35. <https://globalfindex.worldbank.org/>

¹⁷ As far as financial inclusion is concerned, PBOC is focused on not only those unable to use financial (banking) services, but also people who are unable to use smartphones and the Internet. For the latter, it appears to be considering a mechanism to receive payments through some kind of cards that can be charged with DCEP and other methods. Eiichi Sekine (2020), *ibid.*, pp. 191-192.

¹⁸ For consumers in rural areas, where financial services are unavailable, DCEP can become a new mode of payment in place of cash if it comes into wide use. However, DCEP is expected to be used on a trial basis in limited areas for now, including the five cities in which trials are underway. Nationwide use, which is the premise for financial inclusion, may take substantial time.

¹⁹ Wang Yongli, former Vice President of the Bank of China, argues that offline payment should not be emphasized on too much because it can only be used for accepting small amounts in general due to a high risk of overpayment. Wang Yong Yi, "央行数字货币只是人民币现金的数字化" [The central bank's digital currency is just the digitization of RMB cash], April 2020.

<https://finance.sina.com.cn/blockchain/roll/2020-04-23/doc-iirezymi7867059.shtml>

²⁰ Even in China, people appear to recognize that "the level of the DCEP fees will depend on the government's policy" (a Chinese private think tank).

²¹ The listing prospectus of Ant Group, which manages Alipay, shows that service's average payment fee rate was 0.05% from 2017 to 2019. Sun Yuanjie, "Alipay's Ant Group Listed Simultaneously in Hong Kong and Shanghai: Explaining the Biggest Fintech Company's Business Model" [in Japanese], MUFG BK China Weekly, September 30, 2020, pp. 5-6. WeChat Pay's website says that the company's payment processing fee rate is 0.0-1.0%. https://pay.weixin.qq.com/static/protocol/partner_fee.shtml

interest microloans, stores may not be much motivated to use DCEP.

(2) Impact on major state-owned commercial banks and private payment service providers

Major state-owned commercial banks will open digital wallets and convert to and from DCEP as designated operating agencies. Thus, the banks could have the benefit of directing consumers to their own banking services through mobile payment, where Alipay and WeChat Pay are dominant market players, by obtaining more touchpoints with consumers. The banks are expected to increase the number of stores and services where DCEP is available, through collaboration with leading Internet services (referred to as “platforms” later) that connect consumers with stores, restaurant chains, etc. In contrast, Alipay and other service providers made large investments in developing a base of consumers and stores in the initial stage of expanding their payment network. “If DCEP is not forced into use, the same effort would be needed” (a private think tank in China). Elimination of payment fees for DCEP would be advantageous in encouraging stores to use it, but charging no fees seems to be difficult on a commercial basis. Therefore, one of the factors that will affect the spread of DCEP is how and to what extent the PBOC will bear the associated costs for the major state-owned commercial banks that will provide DCEP as a public good.²²

The impact of DCEP on Alipay and WeChat Pay will differ significantly, depending on whether DCEP will be available for their payment services, on top of whether payment fees will be charged.²³ If DCEP payment via Alipay and the like becomes possible ((4) in Figure 3), the current oligopoly by the two companies in the mobile payment market will likely continue. However, payment is expected to shift from (1) or (2) to (4) in Figure 3 if there is no DCEP payment fee, and this means a decrease in income from payment fees. Furthermore, the “manageable anonymity” feature may limit the use of payment data in (4), compared to (1) and (2). Another assumption is that DCEP will not be available in mobile payments via the two companies whereas the PBOC will push the digital yuan as a policy, the two companies’ payment services and DCEP payment could enter into rivalry

DCEP could be a new payment service option for platformers other than Alibaba and Tencent (e.g., ride-hailing app Didi, online shopping service Jingdong Group (JD.com), and food delivery service Meituan). Jingdong Group and some other platformers offer their own payment services, but they have a very small share under the two-company oligopoly. If a consumer uses any service from such a platformer and make a payment through Alipay or the like, it would mean that the platformer is handing over an important business resource—payment data—to a competitor. “If platformers do not want to use Alipay or other services for data protection reasons, they will likely try to encourage consumers to pay with DCEP, which has more neutral features” (a Chinese journalist). Such platformers may proactively participate in the DCEP initiative.

4. DISCUSSION ON MONETARY POLICY

Regarding the impact of the introduction of DCEP on monetary policy, the article by the PBOC’s Deputy Governor Fan Yifei mentions that commercial banks will be able to increase the speed and efficiency of recovering funds by offering DCEP and will provide a direct and highly efficient channel for the transmission of monetary policy. However, DCEP is supposed to be an alternative to cash with no interest attached. Interest could possibly be attached to the digital currency as part of China’s monetary policy in the future, but it can only

²² Fan states in his article that “in order to fully mobilize the enthusiasm of all participants and achieve sustainable operations, it is necessary to refer to the current arrangements for banknote issuance, allocate issuance costs, and establish a reasonable and effective incentive mechanism,” suggesting that PBOC should bear associated costs.

²³In his October 2020 lecture, Mu Changchun said that people will still be able to use WeChat and Alipay after DCEP is issued. He said that DCEP will simply become a new addition to their wallet, suggesting that payments using DCEP will be possible through Alipay and other services. He also argued that DCEP is not a rival because the commercial banks of Tencent and Ant Group belong to operating agencies, which implies that the two companies’ commercial banks will become designated operating agencies. However, details remain unclear. Duan Siyu, Zhou Ailin, “央行詳解数字人民币：和微信、支付宝什麼關係” [The central bank explains the digital renminbi in detail: what is the relationship with WeChat and Alipay], October 26, 2020 https://finance.sina.com.cn/money/bank/bank_yhfg/2020-10-26/doc-iiznezxr8062611.shtml

be an effective policy tool when the CBDC has spread far and wide.²⁴ Therefore, DCEP and monetary policy will have no direct relation for the time being. Nonetheless, the PBOC seems to be exploring various possibilities in leveraging it in future monetary policy.²⁵

5. DISCUSSION ON INTERNATIONAL IMPACT

The aims (benefits) of issuing DCEP that are stated by PBOC officials from an international perspective include the “protection of currency sovereignty” and the “internationalization of the yuan.”

Regarding the protection of currency sovereignty, Deputy Governor Fan’s article points out that centralized management of DCEP (by the PBOC) will be effective in hampering the entry of crypto assets and global stablecoins and preventing the right to issue a currency from being taken away in the digital economy era. PBOC seems likely to have accelerated its initiatives to issue DCEP, after the Libra concept by Facebook Inc. floated in June 2019. Therefore, one of the aims of introducing DCEP is to prepare for the influx into China of foreign digital currencies that are difficult for the PBOC to control.

The internationalization of the yuan was mentioned in Deputy Governor Fan’s 2018 article and Mu Changchun’s lecture.²⁶ This reflects PBOC officials’ aspiration to take advantage of DCEP for that purpose in the future. That said, DCEP is expected to be used for small payments within China. Large payments will likely be restricted²⁷, which indicates that DCEP payment for trade or other fields may not occur in the near term. Moreover, given China’s strict capital controls, it is generally believed that “there is no direct relation between DCEP and the internationalization of the yuan” (a Chinese journalist). As the friction between China and the US intensifies, China has been stepping up its efforts to internationalize the yuan. However, it seems still too soon to discuss the relationship between DCEP and the internationalization of the Chinese currency.

Although not mentioned in by PBOC officials’ articles or lectures, the following has been pointed out as the aims of introducing DCEP from an international perspective: (1) “China is trying to obtain a (global) standard of CBDC in terms of technology and mechanism, rather than internationalizing the digital yuan itself” (a Japanese financial institution in China), and (2) “it is possible that China will export the technology and mechanism used in the CBDC to other countries” (a Japanese think tank in China). According to a report (February 12, 2020) by the UK’s *Financial Times*, the PBOC has obtained 84 patents domestically in relation to the issuance of its digital currency.²⁸ The PBOC is likely to establish a technological advantage in CBCDs first, eyeing the provision of its DCEP mechanism and technology to other emerging countries that consider introducing a CBDC.

²⁴ Masashi Nakajima, *ibid.*, p. 264

²⁵ According to a paper by Yang Xiaochen, a researcher of University of Science and Technology of China, and Zhang Ming, a researcher of the Chinese Academy of Social Sciences, the PBOC’s patents on CBDC include those intended for use in monetary policies. The following steps seem to be under review for the PBOC to issue the CBDC to financial institutions: (1) First, the PBOC provides unissued CBDC (i.e., a kind of issuance limit); (2) Financial institutions apply to the PBOC for issuance of CBDC before lending; (3) the PBOC examines the application, considering conditions such as the economic situation, financial market trend, and the borrower; and (4) If the application meets the requirements of the PBOC, the bank will issue the corresponding amount of CBDC and the loan will be granted. This “delays monetary policy decisions until funds are injected into the end user, . . . provides a whole new idea to the implementation of monetary policy,” according to the paper. However, as the paper also points out, in this case, the possibility of using such a policy tool is small in the short term, as the digital yuan goes beyond its basic positioning as a “cash substitute” and enters the domain of M2, which includes bank deposits. Yang Xiaochen, Zhang Ming “央行数字货币的五個“能”与“不能”” [The five “cans” and “cannots” of central bank digital currency], April 2020. <https://finance.sina.com.cn/blockchain/roll/2020-04-29/doc-iirczymi8965102.shtml>

²⁶ These articles and lectures state that DCEP will be advantageous to the circulation and internationalization of the yuan because of its “loose linkage to (bank) accounts,” which “can greatly reduce the dependence on bank accounts in the transaction process (i.e., it can be delivered without going through a bank account) and make it easier to circulate in the same way as cash.”

²⁷ Mu Changchun argued in his August 2019 lecture that “the CBDC will be used for small retail payments, and will not create a deposit outflow effect . . . will possibly set transaction and balance limits based on different grades of wallets.”

²⁸ Hannah Murphy, Yuan Yang, “Patents reveal extent of China’s digital currency plans” (2020, Feb 12), *Financial Times*.

6. OUTLOOK AND POINTS TO NOTE: UNIVERSALITY AND SPECIFICITY OF CHINA'S MODEL

Setting the Beijing Winter Olympics in February 2022 as a target, China's trial use of DCEP is expected to progress in selected areas. However, not many people think that the retail payment trend in China will change drastically in the short term. It has been pointed out that "it is only a supplementary currency, and the current goal is to use it on a trial basis in limited five cities or so, with no intention to expand it rapidly" (a Japanese financial institution in China). It is also seen to "only play a subsidiary role in the financial system in the form of a backup for existing mobile payment systems, and the Chinese government neither intends to suspend the use of cash nor force the use of DCEP" (a private Chinese think tank).²⁹

Nonetheless, it is important to pay attention to future developments related to DCEP for two reasons.

First, depending on how the system is designed domestically, DCEP could change the competitive structure of China's mobile payment market and the revenue structure of private payment service providers. The PBOC's Deputy Governor Fan suggested in his 2020 article that the central bank will bear the costs incurred by major state-owned commercial banks providing such "public goods" as DCEP conversion and wallet opening. If the PBOC's support results in eliminating payment fees from DCEP, private payment service providers may be forced to waive their fees or lower related expenses. In other countries, if the system design were made advantageous to major state-owned commercial banks and disadvantageous to private payment service providers, it would be criticized as a private sector oppression. Yet, that kind of system design is also possible in China, which has a state-led economic structure.

The second reason is that, internationally, CBDCs of the Chinese model may spread to other emerging countries under a leapfrog effect, if DCEP can overcome technological challenges and is recognized as effective in dealing with issues such as greater payment safety and convenience and financial inclusion, which are widely faced by emerging countries. According to a report published by the Bank of International Settlements (BIS) in January 2020, the results of a survey carried out on the central banks of 66 countries and regions across the world show that 20% (about 13-14 countries) of the respondents expected to issue general-use (retail-type) CBDCs in the medium term (within six years), of which 90% (about 11-12 countries) were from emerging economies.³⁰ If China establishes a mechanism and technology for CBDCs that can be applied to other emerging countries as well, and then it may be able to take the lead at a global level, when other countries, particularly emerging nations, consider introducing a CBDC in the future.

However, because of technological superiority alone, the Chinese CBDC model will not necessarily be accepted by emerging countries. Although DCEP may spread within China to some extent, issues such as privacy protection and an emphasis on the state-owned sector may only be solved due to China's state-driven economic system. Moreover, the introduction of the Chinese CBDC model into those countries could also risk worsening those countries' relations with the US, as financial and technological conflicts between the US and China continue to deepen. The international acceptance of China's DCEP mechanism and technology is an interesting question and will serve as useful material in deliberating over the universality and specificity of the China model.

²⁹ The Chinese government is also expected to proceed carefully with the introduction of DCEP, including dealing with technological issues. There are views that "it may be mentioned in the 14th Five-Year Plan (2021-2025) as part of promoting the digital economy, but the targets will be qualitative rather than quantitative" (a think tank affiliated to the Chinese government).

³⁰ Bank For International Settlements (BIS), "Impending arrival - a sequel to the survey on central bank digital currency" (January 2020), BIS Papers No 107, pp.7-8.