

## Opportunities, challenges and countermeasures under the background of the launch of the digital currency electronic payment by the central bank

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**Abstract:** In recent years, the upsurge of digital currency has continued to rise. China also explored the issue of digital currency electronic payment in 2014. China is expected to become the first country in the world to issue digital currency and develop real applications. On June 18, 2019, Facebook released the Libra white paper. At this node, it is also necessary for China to launch digital currency electronic payment to cope with external competition. Based on the analysis of the development of digital currency electronic payment in China, this paper analyzes the opportunities brought by the central bank's introduction of digital currency to accelerate the internationalization of the RMB, effectively respond to external competition, and develop China's economy. It also analyzes its challenges for commercial banks, financial stability and national security and related policy suggestions are proposed, in order to provide theoretical support for the central bank to launch digital currency electronic payment.

### 1. The development history of China's digital currency electronic payment

In the global financial field, the mainstream of digital currencies is Bitcoin, Ethereum, and Ripple. These three currencies occupy more than 90% of the digital currency market. With the advancement of technology and the rapid development of China's financial industry, China has also begun to develop and apply the digital currency field. Taking Bitcoin as an example, China's first Bitcoin trading platform, BTCC was formally established in September 2011. Through the trading platform, investors can convert RMB into Bitcoin for trading or withdrawal. The advent of the Bitcoin platform gives investors a window to convert RMB into Bitcoin and a "wallet" for secure storage of Bitcoin. From that moment, digital currencies appeared on the Chinese market in the form of "investment commodities".

In 2014, the central bank established a legal DCEP research group to demonstrate the feasibility of the central bank's issuance of legal DCEP, which laid the ideological foundation and general guidelines for subsequent DCEP research. In 2016, the central bank determined that it would issue legal DCEP, established a DCEP research institute on the basis of the original group, and started the closed development of digital bill trading platforms. On the eve of the 2017 Spring Festival, five institutions cooperated with the central bank to test digital bill transactions in the system. In 2018, Shenzhen Financial Technology Limited, which is wholly-owned by the Central Bank DCEP Research Institute, was established. In August 2019, the central government issued a document to launch a DCEP research and mobile payment pilot in Shenzhen. The central bank meeting requested to accelerate the development of China's legal DCEP, track and study the development trend of domestic and foreign virtual currencies, and continue to strengthen Internet financial risk management. On September 24, 2019, Yi Gang, President of the People's Bank of China, announced at a press conference celebrating the 70th anniversary of the founding of China that China's forthcoming legal DCEP will replace electronic money, parallel with the dual track of the RMB, and provide new for the country's financial market Vitality. In October 2019, Huang Qifan, deputy director of the China International Economic Exchange Center, said that the central bank will launch

DCEP DCEP based on blockchain technology. Through the development of the past few years, we can see China's initiative to try and embrace the wave of digital finance. I believe that China can make DC / EP well, stronger, and even become an international currency.

## **2. Opportunities in the context of the launch of the central bank's DCEP**

### **2.1 Help China to accelerate the process of RMB internationalization**

The popularity of mobile payment and online payment in China is very high. Basically, where there is a network, there is mobile payment. The widespread popularity of mobile payments has reduced the use of cash and laid the foundation for the promotion of digital currencies. Although China's DCEP has a good foundation, there are still many difficulties in the internationalization of the renminbi, and full freedom of exchange cannot be achieved. At present, DCEP may be an opportunity to challenge the hegemony of the US dollar. Under the current global financial structure, the RMB can rely on digital currencies to accelerate the internationalization of the RMB. Because digital currencies have traceability characteristics, money laundering, and illegal transfers of cross-border assets are difficult to hide in the context of digital currencies, and the RMB can be quickly converted freely. Once the renminbi is freely convertible, it will greatly increase the international status of the renminbi and its share of international settlement.

### **2.2 Help China to cope with external competition**

Libra, Facebook's new virtual cryptocurrency. Libra is an encrypted digital currency that does not pursue stability against the exchange rate of the US dollar, but pursues relatively stable actual purchasing power. A basket of low-volatility assets originally denominated in four legal currencies, the US dollar, the British pound, the euro and the Japanese yen, was used as collateral. Currently, the Libra advocated by Facebook is on the verge of launching. For companies with 2.3 billion active user groups, the launch of Libra, a super-sovereign currency, will certainly have a certain impact on the traditional global currency system. For China, once Libra is first introduced and the RMB is excluded from the pegged object, then in the new round of restructuring of the global currency system, the RMB is likely to miss the first opportunity of layout. Therefore, the launch of the central bank's DCEP will help China cope with external competition.

### **2.3 helps to develop our economy.**

DCEP is equivalent to issuing an "identity card" number to each currency unit. This "identity card" number cannot be tampered with, so every step in the circulation of DCEP can be recorded. In this way, criminal activities related to money will be difficult to hide, and the source of illegally obtained money can be traced-where it comes from, through which links, and where it ends up, all transparent. Once the central bank's DCEP is issued, it can clearly trace the whereabouts of currency flows. As long as the funds leave the entity and enter other areas, the central bank will immediately discover. If the country wants to control the flow to a certain field, this goal can be easily achieved in the era of DCEP. In the era of DCEP, the allocation of capital resources can be carried out strictly in accordance with the requirements of macro managers, and the use efficiency of funds will be greatly improved, which is conducive to the development of China's economy.

## **3. Challenges in the context of the launch of the central bank's DCEP**

### **3.1 The DCEP introduced by the central bank may impact the existing commercial bank operating system.**

#### **3.1.1 The relationship between commercial banks and central banks will change.**

The central bank's RMB DCEP is a fiat currency, and its purchasing power can be guaranteed by the state. The RMB legal DCEP still functions as a traditional currency, but its innovation has a greater impact on the existing banking system. In the past, the central bank had a regulatory and supervisory relationship with commercial banks. After the issuance of RMB legal DCEP, the central

bank and commercial banks have added a layer of competition. For example, when the economic situation fluctuates, the public is more inclined to deposit money. The transfer from the commercial bank to the RMB legal DCEP account is due to the higher security of the RMB legal DCEP on the private cloud server of the central bank.

### **3.1.2 The functions of commercial banks and central banks will also change.**

Traditional central banks are the country's only currency issuers, and commercial banks are credit intermediaries. The deposit transfer generated by the issuance of RMB legal DCEP has caused the original binary banking system to transition to a full reserve system. Commercial banks' deposits have been absorbed by the central bank. This trend and phenomenon of nationalization of deposits will The bank's ability to grant credit and the ability to create credit money are damaging, which will reduce the bank's credit support to the real economy.

## **3.2 Digital currencies introduced by the central bank pose challenges to financial stability and national security.**

### **3.2.1 The distributed accounting model will lead to decentralized transaction information processing and increase the difficulty of supervision.**

In the future, businesses related to the RMB legal DCEP may simultaneously create new financial forms, such as online payments, asset custody, digital wallets, and supply chain finance. These areas can easily evolve into new speculative or arbitrage exports. If not technically, Achieving a regulatory breakthrough will pose a huge challenge to the existing financial stability and regulatory system.

### **3.2.2 Lagging supervision will cause national security problems.**

Because the advent of fiat digital currencies has increased the space for cross-border capital flows in various countries, the security of monetary finance will be threatened. After the emergence of fiat digital currencies, a country's currency can be transferred to other countries by purchasing fiat digital currencies, but it is free from regulation. It is easy for the people to realize the irrational large-scale cross-border transfer of capital by buying and selling RMB legal DCEP, which may cause financial stability problems.

### **3.2.3 The Renminbi DCEP has expanded the scope of its impact on national security.**

At present, some people buy various digital currencies in order to preserve the assets in their hands. The typical example is the public issuance of crowdfunding by the virtual currency of blockchain companies. However, these investments have suffered losses and even runaways. As China has clearly banned all types of ICO financing, it is still difficult for the regulatory authorities to closely monitor some hidden ICO financing. If large-scale capital participation in the ICO occurs in the society, it may lead to investment risks, money laundering, or large outflows of funds In the same way, the RMB legal DCEP is also a DCEP asset, and the national security caused by such problems cannot be ignored.

## **4. Countermeasures**

### **4.1 In the ongoing internationalization of the RMB, the government should give full play to the advantages of the DCEP issued by the People's Bank of China to effectively assist the internationalization of the RMB. In this regard, Huanhuan Yi made the following suggestions:**

#### **4.1.1 Find the key nodes of DCEP applications.**

For central bank digital currencies, if they want to increase market share in global circulation, on the one hand, they should actively promote the settlement mechanism of oil and central bank digital currencies, on the other hand, they must also find other key trading nodes, The efforts of the nodes to overcome them ultimately achieve the effect of connecting points and replacing faces with lines.

#### **4.1.2 Form a complete central bank DCEP promotion system.**

For the internationalization of the central bank's DCEP, on the one hand, it should lead the establishment of international organizations like the Asian Investment Bank, mobilize a group of local financial institutions with international capabilities, and match a group of Chinese enterprises that focus on overseas operations and international trade. They have become important players in the internationalization of the central bank's DCEP. On the other hand, in the current context of Libra's desire, it is also necessary to accelerate the construction of various infrastructures based on the central bank's DCEP, and grasp the level of international implementation of DCEP. And rhythm, thereby effectively achieving the purpose of "going out" of the central bank's DCEP.

#### **4.1.3 Establish a global ecological cycle based on central bank digital currencies.**

For the central bank DCEP, if we want to achieve the internationalization of DCEP and enhance the global liquidity, stability and sustainability of the DCEP, the focus is to establish a set of ecosystems around the central bank DCEP, effectively realize the ecological cycle of "going abroad-returning" digital currencies. The cross-border use of RMB requires a special account system. Institutional enterprises' digital currencies. E-commerce platforms. Private individuals can use RMB for payment and settlement. This is a boost to the internationalization of RMB.

#### **4.2 Improve the legal system and regulatory framework related to digital currencies.**

The legal RMB DCEP has great advantages for the entire economic and financial system, but it still cannot be separated from related institutional and legal guarantees. First, regulations such as the Banking Law and the Regulations on the Administration of the Renminbi clarify the legal status of the renminbi's legal DCEP, as well as the issuer, issuer channel, and issue order. Secondly, it is necessary to establish a regulatory mechanism for the statutory DCEP of the renminbi, establish regulatory authorities, entry barriers and regulatory frameworks, as well as the responsibilities and authority of the departments at all levels. Regarding the new situations that occur during the research and issuance of the statutory DCEP of the renminbi, attention must be paid to the supervision. Moderate flexibility to find a balance between innovation and risk. Thirdly, it is necessary to make a pre-judgment and follow-up on the unknown risks of the renminbi DCEP research and development, and to timely supplement the provisions on digital currencies in Internet financial regulations to avoid the risk of risk spread due to the absence of supervision.

#### **4.3 Establish a big data monitoring and early warning system to prevent the operational risks of the RMB legal DCEP system.**

The RMB legal DCEP system means an increase in financial efficiency, and it also implies unpredictable financial risks. Therefore, it is necessary to build a big data monitoring and early warning prevention mechanism that is compatible with it. The operation of the Renminbi legal DCEP will generate a considerable amount of currency data information flow. Through the use of big data and cloud computing and other scientific and technological means to discover the correlation behind these data in massive data information flows, timely identify the sensitive information of currency circulation and increase the risk. The ability of early warning enables early warning and prevention and control of various types of abnormal currency financial activities, thereby providing a reliable guarantee for monitoring the effective operation of the RMB legal DCEP.

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