

Research on Legal Risks of Legal Digital Currency

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ABSTRACT

The rapid development of financial technology has accelerated the process of currency digitization. Legal digital currency, endorsed by national credit, has inherent advantages such as low circulation costs and high transaction efficiency. The issuance and circulation of legal digital currency will surely bring profound changes to society. From a legal perspective, the advent of legal digital currency will face multiple risks such as frequent crimes, lack of law, and system incompatibility. Therefore, it is necessary to upgrade technology, improve legislation, strengthen the application and supervision of the legal system, and provide strong legal protection for the central bank to issue legal digital currency.

Keywords: Law, Legal digital currency, Issuance, Legal risk.

1. INTRODUCTION

The advancement of financial technology has accelerated the pace of world economic development. As a typical application of financial technology, digital currency has strong market potential and development momentum. In 2009, Bitcoin came out. Because Bitcoin is a private digital currency with low creditworthiness, it triggered heated discussions. At the same time, the birth of Bitcoin has also promoted the research process of digital currencies in various countries, and some countries are already preparing to try to issue legal digital currencies. In 2014, the central bank of China established a legal digital currency research group and began preliminary exploration; in 2017, the central bank established a digital currency research institute in Shenzhen; in 2018, the research institute established a trade finance blockchain platform; in 2020, China began to conduct internal testing of legal digital currency, and held a pilot promotion meeting of legal digital currency, and the time for China to issue legal digital currency gradually matured. In the new era, while technology brings great convenience to work and life, it will inevitably bring legal discomfort and risks. Therefore, in the preparation stage before the advent of legal digital currency, the corresponding laws and regulations should be further improved in content and system to prevent possible legal risks in the future.

2. AN OVERVIEW OF LEGAL DIGITAL CURRENCY

2.1 Definition of Legal Digital Currency

At present, academic circles and the international community have not yet formed a unified and authoritative definition of digital currency, but it is generally agreed that digital currency has the characteristics of electronic, virtual, and transactional. Legal digital currency is a special form of digital currency, which corresponds to the concept of private digital currency. The biggest difference between it and private digital currencies such as "Bitcoin" is that the issuer is different. On the contrary, legal digital currency and Central Bank Digital Currency (CBDC) can be regarded as equivalent concepts. The Bank for International Settlements defines CBDC as: CBDC is a new type of digital central bank currency, which can be distinguished from the reserves or settlement balances held by commercial banks in the central bank. [1] Legal digital currency is a representative of national credit, with unlimited legal payment power, and is a new manifestation of credit currency against the background of the times. Therefore, legal digital currency refers to a legal compensation currency issued by a central bank or authorized institution of a country, supported by national credit, and presented in digital forms such as encrypted strings. Legal digital currency is a new type of legal currency and digital currency. Its emergence will inevitably lead to

a change in the legal relationship between currency and the currency system, and between currency and the market. [2]

2.2 Legal Status of Legal Digital Currency

2.2.1 National Credit Endorsement

From the perspective of the nature of currency, only the currency issued by the country is the real currency. [3] Legal digital currency is a digital form of legal currency. Under the unified issuance of the central bank, it can obtain legal status and perform corresponding currency functions with the guarantee of national credit. At the same time, the digital currency endorsed by national credit has obvious legal compensation and compulsion, which can effectively control the development of private digital currency, while ensuring the effective supply of currency and the stable development of the market, and gradually building a high-level currency system. This is also the value of the functional currency in fulfilling its monetary function in the market economy.

2.2.2 Base Currency MO

At present, the legal currency issued by the central bank belongs to the base currency MO in the broad currency. However, because MO cannot meet the needs of cross-regional circulation, the central bank partially authorizes commercial banks to issue currency according to specific needs, which creates broad money M1 such as demand deposits. Based on the characteristics of legal digital currency endorsed by national credit and issued by the central bank in accordance with the law, legal digital currency should belong to the base currency MO, and then flow into the commercial banking system through procedures such as deposits and withdrawals. [4] As a legal currency, legal digital currency has rigid redemption characteristics. Therefore, after the issuance of legal digital currency in the future, the demand for cash will gradually decrease, and legal digital currency will replace traditional cash. At the same time, currency circulation will be faster, the efficiency of currency deposits and withdrawals will be greatly improved, and transaction costs will also be reduced, so as to objectively activate the market and stimulate market potential.

3. THE ISSUANCE AND CIRCULATION MECHANISM OF LEGAL DIGITAL CURRENCY

3.1 The Issuance Mechanism of Legal Digital Currency

According to existing research, there are two main types of issuance models for legal digital currencies: the first is a unary issuance model. Under the unary model, the central bank directly issues legal digital currency to the public. The central bank determines the specific currency issuance volume according to the national monetary policy, and directly issues legal digital currency to the public on the basis of purchases by the capital. The second is the binary issuance model, that is, the "central bank — commercial bank" model. China's current renminbi issuance model is an indirect binary model. In the binary model, the central bank first puts legal digital currency into commercial banks by purchasing assets, and commercial banks use the same method to put currency into the market. According to the current research report on legal digital currency issued by the central bank, China is more inclined to the second binary system model. Under the binary system issuance model, first, digital encryption technology creates a corresponding amount of digital currency, and the central bank deposits it as a liability in the currency issuance library [5]; secondly, the central bank will use open market operations and other methods to put the money deposited in the currency treasury into commercial banks [6]; finally, in combination with specific market conditions and their own conditions, commercial banks put the legal digital currency in their currency treasury into the circulation area.

3.2 Circulation Mechanism of Legal Digital Currency

The circulation mechanism of digital currency mainly has two models: "centralization" and "decentralization". The "centralized" issuance mechanism is similar to the circulation mechanism of traditional legal currency. The central bank plays the role of fiat currency circulation manager. While protecting the privacy of users, it also maintains the stability of the social and economic order. In addition, the "decentralized" circulation model, as the name implies: the central bank is not the main body, but only plays a role in maintaining the operation of the monetary system at the macro level. Under this model, the "decentralized" currency mainly uses

blockchain, digital encryption, distributed accounting and other technologies to realize circulation among different entities, and is separated from the central bank's transaction mode. And there is almost no supervision of currency circulation, which will increase transaction risks and increase the difficulty of supervision and maintenance of the currency system. This excessively free circulation mode will seriously affect information security and threaten the monetary rights of the central bank. It can be seen that the "centralized" circulation model will be the inevitable choice for China's central bank to issue legal digital currency.

4. LEGAL RISK ANALYSIS OF LEGAL DIGITAL CURRENCY

4.1 The Issuance Basis Is Absent

At present, China has not issued any laws and regulations related to legal digital currency. Such legal gaps can easily lead to information fraud, speculative transactions, financial crimes and other behaviors. The "Regulations of the People's Republic of China on the Management of Renminbi" specify that China's legal currency is Renminbi.¹ Renminbi includes banknotes and coins, excluding digital currency types. The "People's Bank of China Law of the People's Republic of China" stipulates that the People's Bank of China performs the function of issuing legal currency.² The Renminbi should be uniformly printed and issued by the People's Bank of China, while the legal digital currency is a virtual currency, and the issuance model is completely different from that of the Renminbi. Therefore, if the central bank wants to issue legal digital currency in the future, it should first allow legal digital currency to obtain legal status so that it has a legal basis for issuance. Secondly, the introduction of laws and regulations regulating the circulation of legal digital currency will increase the cost of illegality, regulate illegal and criminal behavior, and maintain the stability of social and economic order.

4.2 Digital Information Leakage

Compared with traditional currencies, digital currency has the advantages of lower cost and faster transactions due to its virtuality. However, digital currency has extremely demanding requirements on

network platforms and Internet technology. The legal digital currency issued by the central bank will inevitably require a highly secure network platform and technology as support. The issuance of legal digital currency by the central bank to the society requires a huge and stable network information system. Every node on this platform will become an entry point for criminals to infringe. Any problems in any link will cause immeasurable losses such as consumer information leakage and financial market turmoil. [7] Both the country and the individual will face the theft of their fundamental information by criminals, as well as the information leakage caused by the defects of network information technology. Coupled with the rapid and irreversible characteristics of virtual currency transactions, it will accelerate the deterioration of the situation and greatly increase the difficulty of control and supervision. Therefore, before the issuance of legal digital currency, it is necessary to consider how to protect relevant financial consumer information and remedies from a legal perspective.

4.3 Anti-counterfeit Currency Legal Dilemma

In the future, the issuance of legal digital currency by the central bank will inevitably be accompanied by the emergence of fake legal digital currency, driven by huge interests. However, the current and future anti-counterfeit legal systems are not ready. The existing anti-counterfeit work mechanism is not perfect. At the same time, there is a blank in the anti-counterfeit currency laws and regulations governing legal digital currency. If this legal dilemma is not changed, the phenomenon of being unable to follow and having laws difficult to follow will appear. First of all, the dilemma of the existing anti-counterfeit work mechanism is mainly reflected in two aspects: On the one hand, in terms of organizational form, China currently applies the anti-counterfeit work joint conference system. Although there are many departments, the division of labor is unclear and the organization is loose, being unable to give full play to the combined advantages. On the other hand, China has a vast territory and uneven economic development. The existing anti-counterfeit currency joint conference is only set up at the county level, so the corresponding work is difficult to reach a larger scope, which is slightly narrower than the currency involved. If legal digital currency is issued in the future, these areas that have not been radiated are more likely to become the targets of criminals.

1. Article 2 of the "Renminbi Management Regulations of the People's Republic of China".

2. Article 4 of the "Law of the People's Republic of China on the People's Bank of China".

In addition, the non-applicability and lack of laws and regulations also need to be paid attention to. According to current laws and regulations such as the People's Bank of China Law of the People's Republic of China, the "Regulations of the People's Republic of China on the Management of Renminbi", and the "Administrative Measures for the Collection and Appraisal of Counterfeit Currency of the People's Bank of China", at present, legal regulations on the production and circulation of counterfeit currency in China are mainly divided into three aspects: counterfeit currency production, counterfeit currency circulation, and counterfeit currency collection. These three aspects mainly regulate the two forms of legal tender paper money and coins. However, once legal digital currency comes out, the laws and regulations on counterfeit currency manufacturing and counterfeit currency collection will be challenged. Specifically, first of all, counterfeit currency manufacturing methods mainly include forgery and alteration.³ According to the specific definitions given by the corresponding regulations, forgery and alteration are only for physical currency.⁴ Therefore, the counterfeiting methods of legal digital currency cannot currently be regulated by laws and regulations. Secondly, the regulations clearly stipulate that the counterfeit currency collection method is to be collected in person and stamped with the corresponding stamp.⁵ Since legal digital currency is a virtual currency, this regulation cannot be applied.

4.4 Anti-money Laundering Legal Issues

With the continuous upgrade of "Internet +" and 5G technology in recent years, private digital currencies have emerged, which has led to more rampant money laundering, which also brings new challenges to anti-money laundering work. At present, China's RMB anti-money laundering legislation has been very complete, but due to the differences in the nature and characteristics of legal digital currencies and RMB, this difference will lead to the inapplicability of the original anti-money laundering laws. Since the issuance and circulation of legal digital currency of the central bank tends to be a

3. Article 31 of the "Renminbi Management Regulations of the People's Republic of China".

4. Article 1 of "The Supreme People's Court's Interpretation on Several Issues Concerning the Specific Application of Laws in the Trial of Counterfeit Currency Cases (2)" and Article 3 of the "Management Measures for the Collection and Appraisal of Counterfeit Currency of the People's Bank of China".

5. Article 34 of the "Renminbi Management Regulations of the People's Republic of China".

binary issuance model and a "centralized" circulation model, this shows that the central bank always takes the leading position. The central bank is responsible for the issuance of legal digital currency, authenticates transaction users and issues keys. At the same time, in circulation, the central bank plays the role of legal digital currency administrator. Based on this, compared with other departments, the central bank will be more effective and convenient in understanding, implementing, and supervising money laundering activities using legal digital currencies. But in terms of current laws and regulations, anti-money laundering work is mainly carried out by some financial institutions and non-financial institutions, and the central bank is not among them. The central bank cannot directly perform anti-money laundering work, but only has the function of guidance and supervision, which will not be conducive to the development of legal digital currency anti-money laundering work. [8]

5. EXPLORATION OF THE LEGAL PATH OF LEGAL DIGITAL CURRENCY

5.1 Clearing the Legal Support of Issuance

In order to guarantee the central bank's currency issuance rights, the central bank must have clear legal support when issuing legal digital currencies. To this end, the following two methods can be used: The first is to modify existing laws and regulations that are difficult to apply to the legal digital currency. In Article 2 of the "Regulations on the Management of Renminbi of the People's Republic of China", the category of legal digital currency should be added, and legal digital currency should be regarded as one of the forms of Renminbi. The "People's Bank of China Law of the People's Republic of China" should also add the expression of the source of legal digital currency, and give legal digital currency a real legal status. The second point is that my country can consider directly promulgating the "Legal Digital Currency Law (or Regulations)", which provides detailed and comprehensive regulations on the issuance method, production method, circulation channel, and supervision methods of legal digital currency. This path can also enable legal digital currency to obtain a legal basis for issuance. However, compared to the first point, this path is more cumbersome and time-consuming, and may affect the issuance process of legal digital currency.

5.2 Enhancing the Information Protection Mechanism

Regarding the risk of information leakage that may arise after the emergence of legal digital currency, the first is that the law should clarify the subject of the obligation. No unit or individual may privately disclose or inquire about other's user information and national data, and introduce corresponding regulatory measures; the second is to determine the scope of information protection. For example, the user's basic information and internal confidential data are inviolable; the final is that specific laws and regulations must be formulated. Given the protection of laws and regulations, the central bank and commercial banks should also continue to improve their own network information technology, and do their best to protect the basic information of individuals and the country. In addition to the legal protection of data and information, technical means can also be used to strengthen information protection. Payment tokenization technology is a third-party organization that anonymizes the source of personal information. This technology can effectively solve the problem of individual user technology weakness, so that payment flow information in transaction activities can only contain basic token information, which can effectively avoid the appearance of private information such as card numbers in transactions between two or more parties, and reduce the possibility of fraud. In addition, the technology can also use the domain control function to intelligently perceive and control the user's transaction scenarios, making transactions more secure. [9]

5.3 Improving Laws and Regulations on Currency Crimes

5.3.1 Anti-counterfeit Currency Laws and Regulations

Due to the issuance of legal digital currency, the laws and regulations on counterfeit currency manufacturing and counterfeit currency collection will face new challenges. Therefore, in view of the characteristics of legal digital currency, it is necessary to further improve the laws and regulations in these two aspects. First of all, in the manufacture of counterfeit legal digital currency, the central bank should formulate a unified standard for the identification of counterfeit currency. Two-tier method can be used for identification: the first layer is to use the exclusion method, and no other digital currency except legal digital currency can be

circulated as legal digital currency; the second layer is to use specific provisions, formulate relevant legal provisions, and use specific methods expressly stipulated by the law to regulate counterfeit currency behavior. As long as illegal technical means are used to imitate or tamper with the original code of legal digital currency, it can be determined that it is making counterfeit currency. Secondly, in terms of counterfeit currency collection, the central bank can embed a set of professional procedures in legal digital currency to collect counterfeit currency. This program can detect abnormal currencies in the process of transaction settlement, and report them to the central bank in a timely manner. At the same time, it can decide whether to implement the collection procedure or directly freeze the account according to the specific circumstances. Of course, the central bank should also transmit the violation information and transaction records to other state agencies in a timely manner to coordinate and jointly combat counterfeit currency behavior.

5.3.2 Anti-money Laundering Laws and Regulations

It is a must to improve China's anti-money laundering-related laws and regulations according to the dilemma of anti-money laundering laws and the characteristics of legal digital currency. The first point is to revise and improve existing relevant laws and regulations, comprehensively detect and estimate risk points during the issuance of legal digital currency, and establish an effective correspondence between the law and money laundering risks, so as to avoid situations where there is no way to follow or there is no law to follow when cracking down on money laundering. [10] The second point is to use stricter regulatory standards and enforcement measures. The central bank organizes the establishment of a supervisory coordination mechanism and gives the central bank executive functions to respond to the risk of money laundering under new technologies in a timely manner, thereby promoting the smooth operation and sound development of legal digital currencies. The third point is to strengthen supervision and cooperation with other countries and international organizations in the fight against money laundering, jointly build an international platform and standards for fighting against money laundering, cooperate with each other, and implement coordinated implementation to jointly combat digital currency money laundering crimes. [11]

6. CONCLUSION

The issuance of legal digital currency is an inevitable trend of sustained economic development. Legal digital currency is endorsed by national credit, which has natural advantages compared with traditional currencies and other digital currencies. The application scenarios of legal digital currency continue to be enriched, which will bring many problems while facilitating people's lives. Therefore, the law must go first, and only under the sun of the law can the legal digital currency land smoothly and benefit the society. From a global point of view, China has achieved a dominant position in the technological innovation of legal digital currency, but the exploration is still in the preliminary stage. China should accelerate the construction of legal digital currency legal system to provide a solid legal guarantee for the promotion and application of legal digital currency in China in the future.

AUTHORS' CONTRIBUTIONS

This paper is independently completed by Zhuoer Zhang.

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