

Legal Regulation of Stablecoins

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Abstract

As a type of digital currency, stablecoin is expected to overcome the disadvantage of large fluctuation in the value of digital currencies through a series of mechanisms. Thus the stability of currency value could be realized to achieve its applications including payment. There are two major control capabilities in stablecoins: control over data and control over huge assets. These two capabilities enable the stablecoins to gain huge market advantages, which will actually become a new type of infrastructure and have an impact on social public life. Nevertheless, there are also huge risks behind the advantages. With the platform attribute, stablecoins will be developed to be “too large to fail”. Once it’s out of control, there will be risks in reserve asset management, data, operation, and competition. We should consider stable currency as an infrastructure, to establish a stable currency reserve management system and consumer protection system, as well as to improve the stable currency platform data access system, and the power and responsibility allocation of regulatory authorities.

Keywords

Stablecoin, Infrastructure, Data

1. Introduction

With the deep integration of technology and finance, the concept of digital currency has gradually developed into practice. However, most of the existing digital currencies are prevented from becoming a reliable payment tool due to their problems such as unstable currency value and difficult supervision. The emergence of stablecoins provides a possible way to solve the above problems. Due to the certain stability mechanism of stablecoins, it is better than most other digital currencies in terms of currency value stability, which can better realize its function as a payment tool. Discussions on the risks and regulations of stablecoins have begun since its emergence (Scott, 2018). However, the large-scale attention

to this digital currency stems from Facebook's announcement for development of the stablecoin Libra in 2019, which aims to "develop a credible and innovative network of financial interactions that benefit people and businesses within reach." The launch of Libra can be said to have caused a thousand waves with one stone. Compared with the previous issuers of stablecoins, Facebook has a large and extensive user base, and its platform strength cannot be ignored. Based on this, regulators around the world have questioned Facebook Libra and assessed its impact on financial stability. The so-called "stable currency" was proposed by the G7 Stablecoin Working Group in this situation to refer to those digital currencies with large scope of influence.

2. Stability Mechanism of Stablecoins

Stablecoins are not inherently stable, the currency value needs to rely on a certain stabilization mechanism to maintain relatively stable. Such mechanism is divided into asset-based and algorithm-based. Asset-based means that asset-linked stablecoins are in need of real estate, financial assets or other encrypted assets as collateral to maintain the currency value; while the so-called algorithmic stablecoins are still at the theoretical level. By adjusting the market supply of algorithmic stablecoins, their price stability relative to reference currencies could be maintained and users' expectations of their future values are guided. Through various stabilization mechanisms, stablecoins with relatively stable currency values can be made better advantages of digital currencies. On the one hand, stable value allows stablecoins to be better applied to all kinds of payment scenarios, especially cross-border payments, to improve payment efficiency and reduce payment costs. On the other hand, stablecoins can be widely used, with their programmability property being better exploited due to stable value.

The reason for the stablecoins to attract the attention of all circles is its potential impact. It's generally believed that the issuers of such stablecoins have broader user groups and stronger technical force than previous digital currency issuers. Moreover, the nature of being linked to legal tender or other types of assets, leading to its more far-reaching impact on the economy. Actually, stablecoins can be seen as the expansion of the platform into the financial field in the context of the digital economy. The accumulated network effect, lock-in effect and technological superiority on large digital platforms can be transformed into advantages in the financial field. And stablecoin shall be seen as a means to facilitate this transformation. Stablecoins under the platform expansion strategy reflects the trend of the digital currency and platform economy combination. It will eventually enable digital currency to develop new platform based functions while assuming the traditional functions of currency. In addition, with the deepening of combining digital currency with platform economy, a "digital currency area" with the platform as the boundary will arise to further affect the pattern of currency competition (Sanstan, 2008).

From the perspective of business behavior, the appearance of stablecoins can

be understood as an attempt by technology giants to enter the financial field, which is essentially an expansion of the platform to payment and other fields. Since the platform is a data-driven business, its profit model is to collect, analyze and monetize high-value data continuously. Payment data highly reflects different connections in the economy and society, hence to become the target of acquisition by major platforms. The platform itself has a huge advantage in data control. When it enters the financial field through stablecoins, the mortgage assets collected from users will turn into a huge asset reserve. Therefore, stablecoins have two major control capabilities over data and over huge assets. These abilities will enable stablecoins to gain huge market strengths, to affect social and public life as a new type of infrastructure. However, there are high risks behind the advantages, for stablecoins with platform attributes will develop to “too large to fail”.

The currency competition in the digital economy era presents a multidimensional trend. Among all the digital currencies, the stablecoin has become the most widely and closely linked with other economic fields due to its centralized design and the stability mechanism of anchoring assets, and with strong publicity. Once stablecoin is launched, the platform based will become a new infrastructure. The source of its advantage lies not only in the control of data, but also in the control of funds.

For stablecoins, the biggest competitive point is the control of data. Data ownership can bring economies of scale: the more data be collected and analyzed on a platform, the higher the quality of various financial services provided to users. Such data-driven scale is typically reflected in the network effects and economies of scale embedded in software. All the cost of design, development, and coding are borne by the first version, while the production cost of all subsequent copies is actually zero. The scale driven by data is also the foundation for its development towards a larger digital financial platform.

The huge capital control superiority of stablecoins cannot be underestimated. One major advantage of investment platforms comes from their aggregation of liquid assets, basically the flow of user funds is under their control. Users are attracted by high-quality payment services and are willing to transfer control of their assets to platform providers. In this way, the operator has a favorable position when negotiating with custodians, other advisors, brokers, and stock exchanges, allowing them to sign more favorable contract terms for the users. The main method adopted by investment platforms to ensure the best conditions for themselves and users may not necessarily be the threat of defecting to other service providers; On the contrary, if there are enough users on the platform, the platform provider itself can provide hosting, consulting, brokerage trader, and even exchange services. Hence, the true value lies in the bundled consumption ability of the users. This ability can be used to obtain better conditions from the counterparties or to assume their functions if the counterparty does not yield to the pressure of the investment platform. Through this approach, investment platforms squeeze out profit space from the backend of the investment chain and

respond to the threat of backend platforms approaching their users by integrating more and more front-end institutions. In order for this strategy to succeed, the number of front-end users and asset flow are crucial, which explains the widespread competition between user numbers and asset size.

3. Specific Risks of Stablecoins

Based on the control capabilities of stablecoins on data and assets, once the ability is out of control, risks including reserve asset management risk, data risk, operational risk, and competition risk will arise. Firstly, the risk of reserve asset management mostly comes from the fact that the stablecoin issuer invests the stablecoin reserve assets in high-risk financial products, resulting in the shrinking of the assets in the event of a huge loss, which in turn damages the rights and interests of stablecoin users. More seriously, the shrinking of stablecoin reserve assets will lead to a decline in user confidence, leading to a run on the stablecoin. That's to say, a large number of stablecoin users request to redeem the mortgaged assets within a short period of time, which eventually leads to the stablecoin collapse. Secondly, data risk mainly means the improper use of collected user data by the stablecoin issuer, resulting in the leakage of personal information (Taylor & Sangstein, 2015). Thirdly, operational risk means the risks inherent in the stablecoin system itself, which can be divided into internal risks and external risks. Internal risk refers to problems such as the collapse of the stablecoin operating system; external risk refers to the possibility that the system may face external network intrusion. Finally, there is the issue of competition risk, which contains the competition between stablecoins with both other related private entities and legal tender.

4. Shortcomings in Current Legal Regulations

Firstly, there is insufficient tolerance and guidance for innovation. Currently, central banks, financial regulatory authorities, and international financial regulatory organizations in major economies around the world are paying attention to the application and compliance of digital currencies and conducting research. In addition, some countries have begun to make relevant attempts, for example, the United States, the European Union, Japan, and other countries have started legal construction related to digital currencies. In contrast, although China is at the forefront of the digital economy application, and the volume of related digital platforms ranks among the top in the international community, China's regulations on innovation in financial fields such as digital currency lag behind the developed economies. In 2017, the seven ministries jointly issued the "Announcement on Preventing the Risks of Token Issuance Financing", which prohibited token financing trading platforms from engaging in legal currency transactions and coin-to-coin transactions. In other words, there is actually no legal space for digital currency transactions in China, with the truth that there is also no legal space for the transaction of stablecoins.

Admittedly, such a ban can protect Chinese market from the negative impact of overseas stablecoin in a short term. However, such regulations will also greatly impact the development of private digital currencies in China. Furthermore, the existence of regulatory legislation in China and the suppression of the private sector in the field of financial market infrastructure have resulted in shortage of innovation space and flexibility (Hayek, 2007). Due to the current inadequate regulations on digital currencies in China, there is also a lack of corresponding legal preparation.

Secondly, the ability to prevent risks is deficient. In China, usually a direct prohibition approach is adopted for the regulations on digital currencies, in which the risks caused by digital currencies cannot be effectively regulated. The prohibition results at the level of necessity may not be exactly as expected by regulatory entities, and some digital currencies will still circulate in the domestic market in various ways. Although a ban policy on digital currency trading platforms has been adopted in China, such policies may not be effectively implemented from a practical perspective. After the launch of Libra, in order to obtain the incremental capital inflows brought by it (Li, 2020), major digital currency trading platforms from domestic and abroad will definitely hold a positive attitude towards Libra and have it listed at top speed. Therefore, regardless of China's regulatory attitude towards stablecoins, such private digital currency will have an impact on China in different ways. With simple and crude bans there will be no expected effect, but a result that all digital currencies are rejected. Only by facing up to the existence and development trend of digital currencies including stablecoins, practically formulating corresponding legal systems and improving regulatory capacity, can we effectively prevent all kinds of risks brought by stablecoins and benefit from the development of digital currencies.

Thirdly, the regulation of market competition is incomplete. Because of the platform attribute of stablecoins, now there are some platforms currently use their own advantageous to harm competition. It is conceivable that after the platform enters the payment field by issuing stablecoins, the competition in the payment field will be affected. In the recent practice of payment platforms, digital platforms involved in the payment field have accumulated considerable market advantages and used it to consolidate their superiority position. Specifically, it is manifested as refusing third-party intervention in one's own database for data sharing. In fact, in the field of payment, the core of fairness lies in maintaining fair competition and appropriately leaning towards vulnerable participants. In an open payment and clearing system, more qualified entities should be allowed to enter, and become operators as well as participants. Besides, multiple measures need be taken to improve direct and indirect access to payments which promote beneficial competition.

At present, there is not a sound legal system established in China for open sharing of data between enterprises, including regulations on the ownership, the boundaries and methods for open sharing of enterprise data. In the absence of a corresponding legal system, powerful digital platforms will occupy a

large amount of data without regulation, which will lead to data monopoly issues. Other enterprises are prevented to enter the field, with innovation and development to be hindered.

Fourthly, regulatory authorities are lack of data accessibility. In an era of ever-changing, complex, and disruptive innovation, determining regulatory targets, timing, and methods is not an easy task. Regulators may find themselves trapped in the inherent dilemma of blind regulation without sufficient information or passive regulation without action. This is actually a manifestation of regulatory capacity lagging behind the regulated object. With nowadays rapidly developing financial technology, existing regulatory measures are becoming increasingly weak. The innovations often deviate from the existing regulatory framework, causing serious risks. As a connection of digital currency and legal tender, stablecoins are with great potential in the field of payment, especially cross-border type. However, it should be noted that stablecoins are based on distributed ledger technology. The traditional payment supervision system is bypassed by such paradigm, so risks are difficult to be grasped by the regulatory authorities. The absence of supervision will increase the risk of stablecoins. For now, China is in a stage where traditional regulatory measures are weak, while new regulatory measures have not yet been established. To effectively regulate the stablecoins, it is necessary to establish a set of supervision mechanism with data as the core.

5. Regulation Path of Stablecoins

Stablecoins are with large amount of data, funds, and high publicity. As a result, it has become an important systemically base installation, which belongs to a “financial new infrastructure”. In a narrow sense, it is equivalent to base construction of financial market, which places emphasis on the hardware facilities for financial market transactions. In a broad sense, it involves all aspects of financial stability. Therefore, the best way to deal with the risks of stablecoins is to build an infrastructure system for digital currency platforms represented by stablecoins.

First, building a stablecoins reserve management system. As the value support of stablecoins, stablecoin reserves play an important role in maintaining the stability of stablecoins (Li & Li, 2020). Ensuring the benign operation of stablecoin reserve assets, the risk of stablecoins could be blocked to a large extent. The key point of the management is to ensure that the value of the reserve fund is sufficient to support the consistency of the currency value. Thereby, it is essential to legally require stablecoin issuers to only invest in high-liquidity, low-risk financial products to ensure adequate reserves. Furthermore, it is needful to require the stablecoin issuers to deposit the reserve fund in a reliable financial institution, like the custodian institution; and the bank verifies at least every day whether the balance of the reserve account is always equal to or greater than the number of outstanding stablecoins issued. Besides, the external audit system for stablecoins should also be improved, which means to regular audit whether the

stablecoins have achieved the above-mentioned requirements.

Second, building a stablecoin consumer protection system. Regulatory authorities can establish stablecoin-related management regulations to ensure that the users can clarify the nature of the stablecoins at the legal level, as well as the redemption rights and redemption of the assets paid. Moreover, comprehensive and transparent information should be ensured to provide to users and relevant stakeholders by stablecoin issuers, so that the users and stakeholders can understand the function, operation, and details of the stability mechanism of the stablecoins. Specifically, the content that should be understood by users and relevant stakeholders concludes: 1) the management structure of stablecoins; 2) the distribution of responsibilities for stablecoin operators or service providers; 3) the mode of operation for stabilizer of stablecoins; 4) the investment plan for stablecoin reserve assets; 5) custodian bank's management plan for stablecoin reserve assets, specifying the way to distinguish user assets from platform-owned assets; 6) resolution mechanism for stablecoin disputes and relevant risk notifications for users. Regulatory authorities are supposed to ensure that the stabilization mechanism adopted and relevant information about the assets linked to the stablecoins should be disclosed to their users and relevant stakeholders reasonably. The number of stablecoins in circulation and the total value and specific composition of the stablecoin reserve assets should be regularly disclosed to their relevant stakeholders. In addition, the information ought to be independently audited and regularly disclosed in a comprehensive and transparent way. At the same time, other information related to the function of the stablecoins need to be provided as much as possible, such as a list of exchange platforms and wallet providers that support the stable currency transaction. The stablecoin issuers should also assure that there are protection mechanisms for their stakeholders when they have substantial adjustments that affect the currency value, stability and risks.

Third, building a platform data access system for the stablecoins. In the platforms attached by stablecoins, a large amount of data could be obtained through the stablecoin business. With above data, the platform owners may gain a dominant market position and maintain the dominance by denying other companies access to their own data. Thus a monopoly is formed, and leading to a "too big to reach" dilemma. As a consequence, it is vital to explore the construction of financial market infrastructure data access system.

Regulators could mandate that owners of stablecoin platforms with market dominance open up certain user data to new market entrants. New entrants can use this to reduce user switching costs and enter the market more smoothly. Although the standardization of user data is a key prerequisite for a successful migration, it remains questionable whether small new entrants will benefit from this rule in practice. Particularly in the case of the EU's Open Banking initiative, access to user data appears to be helpful for large technology companies to enter the market. With existing resources, these enterprises are able to attract a plenty number of new users, also to plan large-scale data transfer interfaces.

As a result, it's reasonable to only require companies with strong potential dominance to provide open user data. To discourage further concentration in the digital payments industry, once market share exceeds a certain percentage of the market, open data and data governance requirements could be attached in order to break data-based scale economy and make entry easier for smaller competitors.

Fourth, improving the allocation of powers and responsibilities of regulatory agencies. When the platform becomes a facilitator of stablecoins, the platform regulation needs to be taken in to account in considering the govern of stablecoins. Generally speaking, when it comes to issues related to financial market infrastructure, the competent department is the People's Bank of China. Relevant problems including the implementation of financial infrastructure principles, financial risk prevention, payment system access are all in the charge of the People's Bank of China. Nevertheless, with the rise of platform power, the market fair competition and data security issues caused by stablecoins cannot rely solely on the Central Bank. Consequently, the Central Bank, market regulators, and other relevant institutions should have powers consistent with their relevant responsibilities to obtain timely information needed for effective supervision and regulation. In particular, they should use these powers to obtain information for their understanding and assessment. There should be appropriate legal safeguards to protect all confidential and non-public information obtained from stablecoin systems, while the information is ought to be shared to minimize gaps and reduce duplication in management and oversight.

6. Conclusion

The stablecoin is poised for take-off, which has attracted the attention of regulatory authorities around the world. If we only regard stablecoins as the variant of original digital currency and ignore the platform power behind it, we won't have complete analysis of its risks, or effectively regulate it. The platform operators aim to enter the financial field by transferring its accumulated data and algorithmic advantages in other fields to the payment field, ultimately obtaining a larger quantity and richer variety of data; the development of stablecoins is one of the means. Compared with other methods, data will be further monopolized by payment business through stablecoins. In this process, the capital and data advantages could be gathered in stablecoins gradually, to form a quite powerful market competitive advantage.

Nevertheless, if the capital and data control of the stablecoins are not effectively regulated, the issuers of the stablecoins may abuse the above advantages. Once the "database" or "treasury" of stablecoins is out of control, risks including reserve asset management, data risk, operational risk and competitive risk will arise. Because of the huge scale, numerous users and extensive connections of stablecoins, any kind of risk will lead to a very serious impact. It is the so-called "too large scale to fail" and "too wide connection to fail". This is also the view of major regulators that the regulatory framework of the stablecoins should be

launched simultaneously, so as to minimize the risk of stablecoins. As a technological and financial innovation, stablecoins may be beneficial to the strategy of RMB internationalization. Technology accumulation and circulation infrastructure can be obtained for China's Digital RMB research and development. Thus, we should aim to reverse market failure when regulating the stablecoin, to improve efficiency and promote market fairness while preventing risks.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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