Cross-Border Credit Information Sharing Mechanism and Legal Countermeasures Based on Blockchain 3.0

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1. Introduction

A credit reporting cooperation mechanism has long been absent between the Chinese mainland and Taiwan (hereinafter referred to as “both sides of the Taiwan Straits”). This situation is not conducive to the quality improvement of regional economic development, resulting in serious dishonest conducts that damage personal rights or causes financial risks. In the long run, it will harm the economic security of both sides, increase the business cost of both sides, and reduce market efficiency. Fortunately, with the development of the internet, big data, cloud computing, blockchain, artificial intelligence, and other data technologies, the application of data technology in credit information systems has become a trend, bringing a new opportunity for cross-border credit reporting cooperation between both sides; even so, there are still many challenges in the digital transformation process of credit information systems, such as poor application efficiency of data technology, uneven quality of data information, and lack of a data sharing mechanism. These issues remain to be further studied.

Since the maturity of the regional credit system across the Taiwan Straits is an important measure of the level of regional economic coordination, it is really essential to establish a cross-border credit cooperation mechanism. This study focuses on the research of a credit information sharing platform based on blockchain 3.0 and its legal guarantee, with an aim to promote the integrated development of credit reporting across the Taiwan Straits. This study first points out the difficulties of cross-border credit information sharing; second, the technical characteristics of blockchain such as distributed storage, point-to-point transmission, security and credibility, open source, and programmability are naturally suitable for solving the information sharing problems in the credit reporting industry. So, this study proposes a framework and a specific design of a cross-strait credit information sharing platform based on blockchain 3.0 infrastructure; finally, in order to ensure the smooth operation of the platform, this study suggests signing a series of nonnormative “soft law” documents in the principles of equality, willingness, and consultation to provide legal guarantee for cross-border credit sharing.
the data-intensive credit reporting cooperation between both sides of the Taiwan Straits and lay a foundation for the integrated development of the credit reporting industry across the Taiwan Straits in the future.

2. Background

So far, the credit information system and dishonesty linkage mechanism across the Taiwan Straits have not been effectively established. So it is not easy for banks in the Chinese mainland to grasp the assets, operation, and credit status of Taiwan enterprises/individuals. As a result, Taiwan enterprises and individuals are facing credit reporting, guarantee, and financing difficulties in the Chinese mainland, which hinders their long-term development in the Chinese mainland. As both sides of the Taiwan Straits enter a stage of multifaceted exchanges and integration, the demand for cross-border credit reporting business becomes prominent. While the sharing of credit information between both sides has been tough, the digitalization of the credit reporting industry based on blockchain technology just provides a solution.

2.1. The Difficulties of Credit Information Sharing

(1) The ownership of credit data is difficult to determine. Data resources are easy to copy; their confidentiality is difficult to maintain; and the credit data of the same information provider can often be collected by multiple institutions, leading to great controversy over the ownership of personal information. Since credit data are the core interest of credit agencies, in the case of data ownership is not clearly defined, sharing data with outsiders may lead to the leakage of commercial information and cause a loss of personal interest. In other words, when the ways to measure the market value of credit data and the yields of data exchange are lacking, institutions do not have the motive to share data with the outside world. Theoretically, information providers enjoy the ownership of their data, but they do not have actual processing, use, sharing, and other control abilities of personal information. The hidden rule of the current credit reporting industry is that upon the premise of obtaining the authorization of information providers, the ownership and de facto control of personal credit information and the yields of data exchange all belong to information collectors. This mechanism obviously does not guarantee the reasonable economic interests of personal information providers.

(2) Credit data are difficult to integrate. Credit reporting is part of financial infrastructure, and the demand of the credit reporting industry for data quality is much higher than its demand for data scale. At present, China is promoting the internet financial institutions to join the credit information system of the People’s Bank of China and Baihang Credit [1]. The access to internet financial data poses a greater challenge to data quality management for credit reporting agencies. Different from the data of traditional financial institutions with a high degree of standardization, internet data are characterized by “multisource,” “multiform,” and “multidomain,” so data integration is costly and demanding. Internet financial institutions include microcredit on the internet, P2P platforms, consumer finance, internet banking, and many other fields, which have differentiated businesses, customer groups, data formats, and business levels. Once some institutions do not strictly submit data by the unified standards or submit false data, the credibility of the whole credit information system will be reduced, having a great negative impact on credit management.

(3) Data security is challenged. The security of systems and data must be technically guaranteed on top of promoting the fusion and sharing of credit data among institutions. It is necessary to conduct strict access mechanisms, authentication, and permission control overinvolved institutions, and make reliable database access security settings. Otherwise, potential data security hazards such as vulnerability exploitation, DDoS, and brute-force attack may appear.

(4) Data acquisition is costly. Credit reporting agencies usually have limited self-owned data resources, so they need to obtain external data from other data service providers by means of purchase, exchange, cooperation, and so on. Traditional centralized databases feature high construction costs, complex authorization mechanisms, and unguaranteed data security, so they are not conducive to mutual trust and cooperation between institutions. In addition, a competitive relationship is common between institutions. Every credit reporting agency wants to pursue a business closed loop with unique competitive advantages relying on data technology so that the information chain in the credit reporting industry is broken, restricting the exchange and sharing of data information between institutions/platforms. A fierce battle for data sources brings credit reporting agencies huge time and economic costs in the process of data collection, resulting in the waste of resources and the poor evaluation effectiveness of credit reporting reports. Ultimately, the overall efficiency improvement of the credit reporting industry is curbed.

(5) Legal barriers exist between the two sides of the Taiwan Straits. Complete legal norms are fundamental for the sound development of social credit on both sides of the Taiwan Straits. The coordination and cooperation on law are important cornerstones for the high-quality integration, connectivity, and reunification between both sides. In fact, due to the unique “one country, two systems, two scopes of law” across the straits, a legal system for the cross-border credit reporting cooperation between the two sides is absent at present. Thus, the cross-border
credit reporting cooperation between both sides faces many legal contradictions. In addition, the development level and pace of law are differentiated between the two sides, which to some extent hinders the coordinated development of law across the straits. Hence, it is imperative for the cross-border credit governance across the straits, as a new institutional arrangement, to break the legal barrier between both sides to advance cooperation in cross-border credit information sharing.

2.2. Blockchain is a Natural Solution to Cross-Border Credit Information Sharing. Blockchain is not a new technology but a technical system integrating a P2P network, a distributed database, Merkle tree, hash function, asymmetric cryptographic algorithm, consensus mechanism, smart contract, and other computer technologies. Blockchain has the technical features of distributed storage, point-to-point transmission, quasi-anonymity, security and credibility, and programmability. It naturally fits in with personal credit reporting [2] and is able to precisely solve the problems of cross-border credit information sharing and form a strong joint force for the construction of the social credit system.

Many scholars have realized the application advantages of blockchain technology in credit reporting. Liao believed that blockchain technology can be applied to the collection, transmission, processing, and inspection of information, bringing new development opportunities for the credit reporting industry [3]. Shusong proposed that blockchain is a good recipe for sharing credit information for its tamper-proof, traceability, privacy protection, and other technical features [4]. Zhu pointed out that the functional attributes of consortium blockchain, including access mechanism, distributed database, multicluster, desensitization mapping, encrypted transmission, smart contract, and incentive mechanism, are applicable to the collection, storage, transmission, verification, and supervision of credit data [5]. Liu et al. believed that blockchain, as a new credit reporting perspective, can provide technical architecture support for traditional credit information systems and solve the current headaches of the credit information systems [6].

The technical path of applying blockchain to credit information sharing has been a hotspot of academic research in recent years. Ju et al. designed a big data credit reporting platform for multisource heterogeneous data fusion based on blockchain technology and developed a prototype system [7]. Li and Zhao designed a cross-platform credit data sharing model based on blockchain and verified the reliability of the model via empirical analysis [8]. Xie and Yao analyzed the flaws of the blockchain technology model under the current regulatory framework and organically combined “decentralization” with “centralization” to put forward a supervised credit reporting market environment based on a “central authorized agent” model [9]. Wang et al. proposed a multiparty computation model framework based on blockchain information sharing and security and carried out a detailed design of the storage model, consensus algorithm, and computing model [10]. Chen et al. designed and implemented a decentralized credit information system model, and the experimental results showed that the model could ensure high data security [11].

Foreign research literature available mostly focuses on the effects and constraints of blockchain application to credit information sharing. Lemieux implemented blockchain in a land registration system of a developing country, to study the performance of blockchain in creating and saving reliable digital records [12]. Gonzalez (2018) applied blockchain technology to P2P loan platforms and conducted a behavioral experiment. The results showed that blockchain could help make up for behavioral bias and strengthen regulation. Hofman et al. discussed the contradiction between the tamper-proof characteristic of blockchain data and “the deidentification of personal information” stipulated in the EU’s “General Data Protection Regulation” [13].

3. A Cross-Border Credit Information Sharing Platform

Under the background of digital transformation and based on the particularity in credit reporting cooperation formed by cross-border factors between both sides, this study advocates building a cross-border credit information sharing platform with “blockchain 3.0 technology.”

3.1. The Digitalization Path of the Credit Information System

In the context of digitalization, the internet, big data, cloud computing, blockchain, artificial intelligence, and other data technologies constantly impact the traditional credit reporting industry and have a profound influence on the credit reporting technology and the scope of credit reporting services. In the future, data technologies will be further integrated with the credit reporting industry and constantly improve the credit information system [14]. Table 1 provides the differences between a traditional credit information system and a big data credit information system.

In the digitalization of credit information systems, it is necessary to take into full consideration the characteristics of the digital era to motivate the active participation of high-quality institutions in the top-level design of big data credit information systems. The top-level design should revolve around how to guide market actors with data sources, capital, technology, and risk control ability into credit system construction, and consider how to encourage all kinds of market actors to actively use the internet, big data, cloud computing, blockchain, and artificial intelligence to drive the digitalization of credit system. As shown in Figure 1, the digitalization of the credit information system should be carried out from three aspects: data mining, data processing, and data analysis.

3.2. Credit Information Sharing Platform Based on Blockchain

The cross-strait credit information sharing platform should be decentralized, open, and mutually beneficial. A real-time data sharing model should be built by data technology innovation so that the members of the consortium can share data through a unified credit reporting platform.
3.2.1. Consortium Blockchain. Blockchain can be divided into three types: public blockchain, consortium blockchain, and private blockchain. As an integral part of the national financial infrastructure, the data security and data quality in the credit reporting business are extremely important. Therefore, when applying blockchain to the field of credit reporting, a public blockchain where nodes can freely enter or exit the network is inappropriate. Instead, we should adopt a consortium blockchain with strong controllability [15]. The members of the cross-strait credit reporting consortium blockchain include the credit reporting agencies, regulatory authorities, internet financial enterprises, and data service providers on both sides. These institutions form an interest-related consortium to jointly maintain the sound operation of the consortium blockchain. The consortium blockchain implements strict access control, privacy protection, controllable supervision, and other mechanisms to better meet the needs of credit reporting businesses for operation efficiency, security and privacy, authority management, monitoring management, and operation cost, and make it easier to realize application implementation.

3.2.2. Blockchain 3.0 Architecture. As a cutting-edge technology, blockchain has seen its infrastructure architecture and application scenarios constantly extended. Blockchain 1.0 is represented by Bitcoin, used as a support platform for digital currency; blockchain 2.0 introduces Ethereum smart contract, serves as a programmable distributed credit infrastructure, and has its application scenarios extended to payment and settlement, credit financing, financial transactions, securities, insurance, leasing, and other broader financial fields; blockchain 3.0 has stricter access mechanism and authority control, and is dedicated for enterprise-level application scenarios beyond the scopes of currency and finance, represented by Hyperledger. Considering credit reporting business has high requirements for data security, a partially decentralized hybrid architecture is more suitable—through a strict access mechanism, consortium members read and write blockchain data according to their authorization. A blockchain-based credit information sharing platform infrastructure can be designed using blockchain 3.0 architecture as the framework, as shown in Figure 2.

<table>
<thead>
<tr>
<th>Items</th>
<th>Traditional credit information system</th>
<th>Big data credit information system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data sources</td>
<td>Declared by financial institutions, government departments, and individuals. Single sources and low frequency of acquisition</td>
<td>Third-party data: credit, justice, and water/electricity/gas payment; internet data: education, and occupation, collected in real time</td>
</tr>
<tr>
<td>Data formats</td>
<td>Structural data</td>
<td>Structural data and massive nonstructural data</td>
</tr>
<tr>
<td>Analytic techniques</td>
<td>Linear regression, privacy layout, classification trees, and others</td>
<td>Machine learning, neural network, cloud computing, artificial intelligence, page rank, and other big data processing methods</td>
</tr>
<tr>
<td>Service targets</td>
<td>People with credit loan records</td>
<td>People with credit loan records, and people with enough imprints in daily life</td>
</tr>
<tr>
<td>Application areas</td>
<td>Finance, including credit loans</td>
<td>Finance, all walks of life</td>
</tr>
</tbody>
</table>

Table 1: Differences between traditional credit information systems and big data credit information systems.
Consensus layer: blockchain technology uses mathematical principles to create trust among nodes, and uses a consensus algorithm to ensure data consistency and determine data ownership. The most commonly used algorithms by consortium blockchain are practical byzantine fault tolerance (PBFT) and proof of stake (PoS). The basic idea of PBFT is as follows: when a node receives information uploaded by another node, it does not immediately make a judgment on whether to write the information into a block, but forwards the information to other nodes to exchange views with other nodes and make a consistency judgment [17, 18]. The basic idea of PoS is as follows: when a node uploads information to the
blockchain network, the information is not immediately written into a block but is stored in a candidate block as unidentified information; all nodes compete in stake, and the node with the highest stake obtains the right to record. The winning node broadcasts a candidate block to the whole network. After the block is verified and passed by the other nodes, the new block is connected to the blockchain; under the action of the PoS algorithm, the higher stake a data service provider owns (such as data assets), the more likely it is to obtain the right to record of a new block [19, 20].

③ Contract layer: in order to guide data service providers to actively participate in data sharing, it is necessary to incorporate economic factors into the blockchain technology system, design reasonable distribution rules, give more rewards to nodes that contribute more data resources, and punish nodes that do not obey the rules. Through smart contracts, the incentive rules can be written in the form of computer programs and automatically executed when certain conditions are met, to achieve automated and equitable incentives for data service providers. Smart contracts are usually written in the contract-dedicated programming language Solidity and run in Ethereum virtual machine (EVM). After compilation is finished in the EVM compiler, they can be uploaded to a blockchain network via an Ethereum client. The execution of smart contracts requires no participation of intermediaries or manpower, thus saving time and cost; smart contracts have higher computing efficiency and accuracy; and they cannot be reversed once automatically executed, thus offering higher transaction security [21, 22].

**Figure 2:** An architecture diagram of the credit information sharing platform based on blockchain 3.0.
Application layer: the application layer of blockchain can achieve good scalability through the distributed application (DApp) and application program interface (API). Various products and services in the field of personal credit reporting, such as authentication, credit score, user portrait, and antifraud service, can be encapsulated into the application layer of the blockchain as DApps to serve diversified credit reporting application scenarios. Credit service institutions can quickly develop various blockchain applications through API and flexibly connect their own applications to the blockchain, thus realizing the reuse of credit services, expanding the application scope of credit reporting products, and improving the utilization rate of credit service resources.

3.3. Detailed Design and Advantages of the Platform.
Blockchain has the technical characteristics of distributed storage, partial decentralization, quasi-anonymity, security and credibility, open source, and programmability, so it can effectively solve the difficult problems in cross-border credit information sharing.

(1) A hybrid P2P network realizes the distributed storage of credit data. Blockchain uses a P2P network structure to organize all the network nodes. Without a centralized node, it uses distributed storage technology, where each node holds a copy of the complete data. In the field of personal credit reporting, centralized credit reporting agencies are indispensable, so a “partially decentralized” hybrid P2P network (as shown in Figure 4) can be adopted to ensure the controllability of the system. Credit reporting agencies, regulatory authorities, and data service providers form a distributed network as supernodes, and each supernode joins several normal nodes (users) to form a local centralized network. The data need not be globally shared, and only supernodes have the right to read and write data.

The P2P structure can effectively use massive scattered storage resources in the network to realize the distributed storage of credit data. Each node keeps a complete database, which means that all business data are open, transparent, and completely consistent. There is no need for data integration in the later stage, reducing the cost of mutual trust between nodes. Data can be directly transmitted between nodes without a third party, reducing the risk of data leakage. The damage to any node database will not cause the loss of block data, improving the anti-damage capability and recoverability of data.

(2) Hash function enables the anonymization of personal information. Each business datum in a blockchain can be mapped by a cryptographic hash function into a string of garbled-like hash values composed of numbers and letters to hide specific information. The hash function is unidirectional and cannot be reversed or decrypted. So, it can be used to
The asymmetric cryptographic algorithm strengthens the security of credit data. Each node in a blockchain has a unique key pair: the public key is disclosed, indicating the identity of the node; the private key is not disclosed, indicating the control over information. Information encrypted by one of the keys can be decrypted only by its pair. Elliptic-curve cryptography (ECC) is a classical asymmetric cryptographic algorithm. Its equation is as follows:

\[ y^2 = x^3 + ax + b \pmod{p}, \]  

where \( a \) and \( b \) are the coefficients, \( p \) is a prime number greater than 3, and \( G(x, y) \) is a discrete point on the finite field \( \mathbb{F}_p \).

An elliptic curve has the following characteristics: given a point \( G \) on the curve, we can easily find point \( kG \); in turn, given points \( G \) and \( kG \), it is very difficult to solve \( k \). In practice, asymmetric encryption can be realized by using \( k \) as a private key and \( kG \) as a public key.

Elliptic curve secp256k1 is the most commonly used ECC algorithm. We take a base point \( G \) on it and make \( k \) the receiver’s private key, and the public key is \( K = kG \). The information transmission process is (as shown in Figure 6)) as follows:

1. The sender selects a random number \( r \) and encrypts information \( M \) with the public key \( K \) to generate the ciphertext \( C = rG, M + rK \).
2. Information is transmitted on the network in the form of ciphertext \( C \) and the private key \( k \) is not exposed on the network, which can reduce the risk of data leakage.
3. After the receiver receives the information, it can decrypt the information with the private key \( k \), namely, \( M + rK = krG = M \). Any other node that receives the information cannot decrypt it.
4. Timestamps ensure that credit data are traceable. Timestamps are valid proof of sequence in a blockchain. They record the generation time of each block and the entry time of each credit reporting datum, accurate to milliseconds. Timestamps add a temporal dimension to the data in a blockchain, making the data easier to trace. At the same time, it provides proof of the existence of data, ensures the authenticity and anticounterfeiting of data, further increases the difficulty of tampering with data, and improves the credibility of credit data.
5. Digital signature realizes user authentication. We take a base point \( G \) on the elliptic curve secp256k1, and make \( k \) the sender’s private key and \( K = kG \) the public key. The specific process of generating and validating a digital signature is shown in Figure 7:

   a. The sender selects a random number \( r \) and calculates the point \( rG(x, y) \).
   b. The sender maps the information \( M \) into the hash value \( h \) with a hash function.
   c. The sender encrypts the hash value \( h \) with the private key \( k \) and calculates \( s = ((h + kx))/r \) to obtain the digital signature \( \{rG, s\} \).
④ The sender sends the information $M$ and the signature $\{r_G, s\}$ together to the receiver.

⑤ The receiver solves the hash value $h$ based on the information $M$.

⑥ The receiver decrypts the signature with the public key $K$, calculates $hG/S + xK/s$, and compares whether the result equals $r_G$, thus verifying whether the information is from the sender.

(7) The consensus mechanism ensures the consistency of credit data. A consensus mechanism is a mechanism that uses mathematical algorithms to create trust between nodes in the absence of centralized control. A consortium blockchain has high requirements for consistency, so the consensus mechanism is usually practical byzantine fault tolerance (PBFT). The PBFT divides the nodes into two categories: one host node and several slave nodes. The host node is responsible for sorting the requests sent by each node, and the slave nodes perform the requests in that order. After a node broadcasts information to the network, each node makes consistent judgment with a pairwise interaction method. When $2/3$ of the nodes in the network reach a consensus on storing the information, the information can be stored in a block, thus ensuring the consistency of data storage. The basic process of applying PBFT to a platform is as follows:

① We select the consortium member $R_0$ as the host node and the other $3n$ consortium members as the slave nodes. A new block is generated by the host node;

② The consortium member $R_1$ sends REQUEST to write in a credit datum with a private key signature and timestamp to the blockchain network;

③ The host node $R_0$ receives REQUEST, determines its ranking among multiple credit data to be
written into a new block, synthesizes the serial number $M$ and REQUEST into the message PRE-PREPARE, and broadcasts the message to all consortium members.

④ All consortium members receive the message PRE-PREPARE, generate the message PREPARE after verification, and broadcast PREPARE to the other consortium members.

⑤ When the consortium members receive $2n$ messages PREPARE, we confirm the messages PREPARE, generate the confirmation message COMMIT, and broadcast to other consortium members.

⑥ When any consortium member in the network receives $2n + 1$ confirmation messages COMMIT, a consensus is reached that the credit datum can be written into a new block.

(8) Token and smart contract realize the pricing of credit data. One of the core values of blockchain is returning data ownership to users and helping data owners get more reasonable returns by sharing data. Token is a value transmission carrier in a blockchain network. By issuing tokens, a blockchain can quantify the data contribution of each node and give corresponding token rewards to realize the value appreciation of the information sharing platform. Smart contracts are computer programs deployed on a blockchain. Economic factors and token incentive rules are written in the form of computer programs in smart contracts; once conditions are met, automatic execution is triggered to realize automated and reasonable incentives. Different from a public blockchain, the purpose of issuing tokens by a consortium blockchain is not to seek the appreciation of tokens through secondary market transactions, but to replace the circulation of currency and improve the efficiency of data transactions. When querying external data, consortium members need to pay tokens to data providers and be authorized to access data, thus protecting the economic interests of data providers and encouraging members to actively share data.

3.4. Legal Support of Cross-Strait Credit Information Sharing Platform. Under the background of digitalization of the credit reporting industry, the construction of a cross-strait credit information sharing platform has ushered in a new opportunity. In addition to the technical discussion above, a corresponding legal norm system should be established between the two sides of the Taiwan Straits to ensure the perfect operation of the platform. In the absence of a legal mechanism for cross-strait credit cooperation, this study believes that a "soft law" path should be adopted for the legal coordination between both sides and that a legal guarantee system for the cross-strait credit information sharing platform is constructed accordingly.
In terms of the “soft law” path, the competent authorities of both sides should sign a series of “declarations,” “agreements,” “planning,” or other forms of documents, that is, nonnormative “soft law” documents formulated on the basis of equality, willingness, and consultation, to carry out cross-border credit governance cooperation (including the cross-strait credit information sharing platform). In addition, the soft law of cross-strait credit cooperation must follow the concept of “connectivity,” adhere to the principles of regional equality, information disclosure, and multi-channel communication, and make institutional bilateral interaction arrangements, so as to get the support of people on both sides of the Taiwan Straits and promote the effective implementation of the soft law. Accordingly, the legal guarantee of the cross-strait credit information sharing platform will be successfully realized, thus eliminating institutional barriers, promoting the coordinated development of law across the Taiwan Straits, and contributing to the deep integration and unification of the two sides. This approach is more in line with the important national policies such as “One China,” “rule of law,” and “deepening cross-strait economic and cultural exchange and cooperation.”

In terms of specific operations, the author’s suggestions are as follows: first, the competent authorities of both sides of the Taiwan Straits should sign a “Framework Agreement on Cooperation and Co-Construction of Cross-Strait Credit Information Sharing Platform.” Second, both sides should formulate laws and regulations applicable to the coordinated development of cross-border credit information governance across the straits, revise and improve the existing laws and regulations, issue trial local regulations and departmental rules according to practical needs, and establish local legislation on the basis of the aforementioned norms. Third, both sides should formulate basic norms for the coordinated development of credit information governance across the Taiwan Straits, including norms for the collection, use, and transaction of credit information; regulations on credit information security; and specialized credit management norms. Fourth, both sides should establish a Standard Institutional System of Credit Information Governance across the Taiwan Straits, shaped by various cross-border cooperation agreements, standards, and contracts, based on improving the credit records covering all credit subjects of the whole society, supported by a compliance credit information service system, and constrained by encouraging honesty and trustworthiness and punishing dishonest conducts.

4. Conclusions

The digital transformation of the credit reporting industry brings a new opportunity to cross-border credit reporting cooperation across the Taiwan Straits. The credit information sharing platform based on blockchain technology proposed herein is conducive to data docking and information sharing across the Taiwan Straits. Under the leadership of the competent authorities, the conditions and requirements of credit data sharing will be more definite, and the incentive and punishment mechanisms of data sharing will be sounder. The introduction of a data evaluation mechanism will be able to screen credit information providers to ensure the information quality of the platform; the platform will eventually become a decentralized, open, and mutually beneficial platform, through which all consortium members on both sides of the Taiwan Straits can make up for their shortcomings in data, and realize data diversification, participants’ diversification, and information sharing.

The technological characteristics of blockchain and the existing regulatory system and methods of the credit reporting industry disagree. The main manifestations include the following: “decentralized” leads to the scattering of regulators, thus weakening the control force of regulatory authorities; “tamper-proof” collides with the provision of “credit reporting agencies shall keep personal bad information for 5 years; the bad information shall be deleted beyond 5 years” sets out in China’s Regulations on Credit Reporting Industry; the legal validity and compliance of smart contracts and token issuance remain to be discussed. These issues need to be further explored in subsequent theoretical research and industry practice.

Data Availability

The data used to support the findings of this study are included within the article.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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