

Development Status, Causes of Risks, and Risk Supervision Suggestions on Internet Finance in China

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Abstract: As a useful supplement to China's financial system, the development of internet finance has promoted the innovation of financial model and injected strong vitality into the financial market. Internet finance provides customers with more convenient and fast financial services, effectively alleviates financial exclusion, and reduces information asymmetry. It is of great significance to promote the marketization of interest rate and the development of inclusive finance in China. However, internet financial risk events occur frequently, posing a serious challenge. Therefore, this research analyzes the causes of internet financial risks, and provides suggestions on internet financial risk supervision, so as to promote a healthy development of the internet financial industry in China.

Keywords: Development; Risks; Risk supervision; Internet finance

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1. Introduction

With the continuous improvement of the internet and information technology, internet financial business has developed rapidly. Internet finance breaks the business model of traditional financial institutions and continues to grow by means of third-party payment platform, P2P (peer-to-peer) network loan, network finance, and crowdfunding. Relying on the internet, big data, cloud computing, and other technologies, internet finance focuses on interactive customer experience, enhances the convenience of financing for small and medium-sized enterprises, provides more financial choices to small and micro customers, meets people's personalized and inclusive financial needs, as well as improves the efficiency of financial resource allocation. On the other hand, the high leverage of internet finance results in an extensive risk spread, which has a certain negative impact on the stability of China's financial system.

2. Development status of internet finance in China

Internet finance is a new model for non-financial institutions to realize various forms of financial services, such as financing, payment, resource allocation, and information intermediary, with the help of cloud computing, big data, internet technology, and mobile communication technology. As an emerging field that combines traditional financial industry and internet technology, internet finance provides customers with more convenient and fast financial services, effectively alleviates financial exclusion, and reduces information asymmetry, which is of great significance to promote the marketization of interest rate and the development of inclusive finance in China.

At present, according to different business models, internet finance is mainly divided into third-party payment, P2P online loan, crowdfunding, and internet financial management models. The characteristics of internet finance include low transaction cost, convenient payment, high information transparency, and high risk. Internet financial enterprises integrate market data and conduct capital risk assessment through cloud computing, big data analysis, and other technologies, which are conducive to reducing the market information asymmetry between capital supply and demand. Customers can transfer and pay through their smartphones and other clients, break the constraints of space and time, as well as improve the efficiency of financial transactions. However, compared with traditional commercial banks, internet financial risk control capacity is insufficient; payment risk, transaction risk, network security risk, default risk, and other problems are prominent; it lacks a complete credit evaluation system, necessary legal supervision, and coordination mechanism.

2.1. Third-party payment

Third-party payment is the earliest internet financial model. It is a transaction support platform provided by a third-party independent institution, with certain strengths and reputation guarantee, that has signed contracts with major banks in the country where the product is located at home and abroad. With the help of advanced information technology, it connects with the bank payment settlement interface to help customers complete payment settlement. Third party payment can reduce the risk of non-payment by buyers and non-delivery by sellers as well as enhance the credit of both buyers and sellers. After the People's Bank of China issued the *Measures for the Administration of Payment Services of Non-Financial Institutions* and the detailed rules for the implementation of those measures in 2010, third-party payment was legally incorporated into the national regulatory system. In recent years, third-party payment has been developing rapidly in China. Network settlement modes such as Alipay, Fortune Pay, and WeChat Pay have the characteristics of low transaction threshold, convenient payment, and great market potential.

Third-party payment, as a new payment platform, is increasingly being accepted by consumers. For example, WeChat Pay and Alipay are emerging as third-party payment platforms. These platforms have almost spread to every aspect of people's daily lives. In recent years, the transaction scale of China's third-party mobile payment has increased rapidly, reaching 226 trillion and 100 billion yuan in 2019, respectively. Compared with 2018, it increased by 35.6 trillion yuan, a year-on-year increase of 18.69%. The transaction scale of China's third-party mobile payment has already reached 271 trillion yuan in 2020^[1]. China's third-party mobile payment market has broad prospects, and industrial payment would become an important growth point of third-party mobile payment in the future.

2.2. P2P online loan

P2P online loan is an internet platform built by the online credit company, which acts as an information intermediary and transaction intermediary to promote the capital financing of both lenders and borrowers. The two parties make a deal after free bidding, from which the online credit company charges an intermediary service fee. The P2P online loan platform mainly includes one-to-one secured mode represented by Lufax, one-to-many online mode represented by Renren Loan, and many-to-many debt transfer mode represented by Yixin. With the help of big data, online credit companies are able to gauge the credit status of financiers, further conduct risk assessment, build a communication bridge between capital supply and demand, as well as assist individuals and small and medium-sized enterprises in solving financing problems. In 2014, China Merchants Bank began to offer e-home investments and financing businesses for small enterprises, marking the official launch of China's commercial bank P2P online loan platform into the market. At present, a number of banks have launched business cooperation with Alipay,

Tianyi Pay, and other agencies. According to the latest statistics, as of October 31, 2019, the number of P2P online loan platforms in China has reached 6,698. Among them, Guangdong, Beijing, Shanghai, Zhejiang, and Shandong have the most P2P online loan platforms ^[2].

2.3. Crowdfunding

Crowdfunding is an emerging financing mode, in which project sponsors raise project funds from investors through the internet. Due to the lack of funds, small and micro companies or creative individuals publicize their projects on crowdfunding platforms to display their creativity and needs. Investors would then purchase products or ideas through group purchase or pre-purchase, provide project funds, and finally gain returns through works, services, or media content. Based on the returns, crowdfunding can be divided into equity crowdfunding, incentive crowdfunding, public welfare crowdfunding, and creditor's rights crowdfunding. It is characterized by low crowdfunding threshold, low cost, simple and transparent process, and a relatively small collection scale without relying too much on personal network resources but emphasizing more on project creativity. Compared with traditional financing methods, public financing is more open and does not take the commercial value of the project as the only criterion. In the past two years, China's crowdfunding industry has developed rapidly. By the end of April 2020, there were 59 crowdfunding platforms operating in China ^[3]. The launch of crowdfunding platforms, such as Taobao crowdfunding, JD crowdfunding, and Xiaomi crowdfunding, has effectively alleviated the financing problems of small and medium-sized start-up enterprises. At the same time, it encourages people to actively display their creativity, create a supportive innovation environment, and promote the innovation progress of the whole society.

2.4. Internet financial management

Internet financial management refers to the behavior of investors purchasing wealth management products issued by fund management companies, trust companies, and other financial institutions through the internet platform, and finally realizing capital appreciation. The internet financial platform uses the long tail effect to concentrate scattered funds into the market, so that investors can gain high returns on the premise of low participation cost. In 2019, Yu'e Bao ranked first among the top five internet financial products in China. Balance Treasure is a value-added service created by Alipay for individual users. Users can turn out the balance treasure fund at any time for online shopping, Alipay transfer, etc., without any fee. In June 2013, Alipay had a partnership agreement with Celestica to launch Balance Treasure. According to the latest data, as of October 13, 2021, the seven-day yield of Yu'e Bao was 2.064%. Although there is a certain gap compared with the glorious history of its annualized rate of return, which was once close to 7%, it still has a great advantage compared to the bank's income during the same period ^[4].

In general, internet finance uses information technologies such as the internet, big data, and cloud computing to collect, identify, and process massive unstructured data, analyze customers' consumption characteristics in real time, and accurately predict customers' behavior to meet their personalized needs. Big data is a massive, high growth rate, and diversified information asset that needs a new processing mode to have stronger decision-making power, insight, and process optimization capacity. It has huge data volume, various types of data, low value density, and fast processing speed. Today, big data plays an increasingly important role in the financial industry. Through big data analysis, financial institutions are able to screen massive data, comprehensively and accurately predict customers' behavior, reduce information asymmetry, promote financial services, reduce costs, and control transaction risks. Alipay's microlending service uses big data processing to evaluate the credit status of customers more accurately, reduce credit management risks, and improve the financing efficiency of small and micro enterprises.

3. Causes of internet financial risks in China

3.1. High risk characteristics of the financial industry itself

As the financing and trading activities of money and funds, finance is directly affected by the macroeconomic situation and the complex financial relations of stakeholders. It itself has high risk. The basic function of internet finance is essentially the same as the financial service function of traditional banking. The financial function theory remains as its basic theory, but the operation mode of financial services has changed. Therefore, the high-risk characteristic of the financial industry itself is inevitably reflected in the internet environment. Internet financial services based on traditional financial services, including the basic functions of operating monetary funds and financial products, such as cross period and cross region resource allocation, payment and clearing, risk management, price discovery, as well as investment and wealth management, still face the possibility of losses such as credit risk, liquidity risk, and operational risk ^[5].

3.2. Internet features amplify financial risks

The financial system under the internet environment is developed around the needs of financial business, and various intelligent terminal technologies such as mobile internet, desktop internet, big data, and cloud computing are applied to provide customers with more services. Efficient, flexible, convenient, and all-round financial services further integrate financial functions into daily economic activities. However, it increases the risk of traditional financial business to a certain extent. Once there is a risk, the transmission speed is fast, and it becomes a situation that is highly systematic and difficult to control. If the current internet credit investigation system is fallacious, the compression of traditional financing procedures by P2P and crowdfunding financing modes as well as the strong relevance and virtuality of the internet would dramatically amplify the credit risk. The rapidity of the internet increases the liquidity risk as well as the payment and clearing risk. Some innovative financial products such as Yu'e Bao, WeChat Pay's Wealth Management, and other products are short-term, while their projects invested in the capital market are generally long-term. There are often serious mismatches between assets and liabilities, increasing the risk caused by the interruption of trading links. In addition, the dependence of internet finance on big data and cloud computing ensues a new challenge in terms of information security. Improper operating procedures and internal control, illegal intrusion, as well as information disclosure would pose a serious threat to the internet financial service system ^[6].

4. Suggestions on internet financial risk supervision

4.1. Improve internet financial risk supervision standards

Facing the current situation of the lack of laws and regulations on internet financial risk supervision and the inability of regulatory subjects to rely on, the legislative department should take the lead in improving the relevant laws and regulations, so as to provide basis and regulatory standards for internet financial innovation supervision. Under the existing laws and regulations combined with the actual situation of internet financial development, they should also make up for the regulatory loopholes existing in the current regulatory subjects in internet financial supervision according to local conditions, especially for internet financial innovative businesses, such as crowdfunding and P2P online loan; official legal supervision standards should be issued, which is conducive to guiding a healthy development of the industry and providing a basis for the regulatory authorities to implement industry supervision ^[7]. At the same time, in the legislative process, the internal innovation of internet finance should be reasonably considered. On the one hand, the legislation should be prevented from being too strict or too conservative, which inhibits the vitality and innovation power of the development of internet finance. On the other hand, it is necessary to

timely make up for regulatory loopholes and gaps in combination with the pace of internet financial development; especially for cross and complex businesses, the regulatory standards should be clarified, and financial risks should be effectively prevented.

4.2. Clarify the regulatory body and its distribution of rights and responsibilities

In view of the difficulties in defining the main body of internet financial supervision, the supervision pattern of “one bank and three meetings” from the traditional financial supervision pattern should be mirrored, and the responsibilities of each supervision subject under the established supervision legal system should be clarified, so as to solve the problems of repeated supervision and unclear supervision responsibilities in reality. For example, it would be beneficial to learn from the unified supervision mode of the People’s Bank of China, which was implemented in the early stage of China’s financial supervision. The banking department, the article and law department, the management department of non-bank financial institutions, the insurance department, and the management department of foreign-funded financial institutions set up under it would undertake the specific supervision responsibilities of each business as well as adopt the reporting system and annual inspection system. The rating system and other regulatory issues would be uniformly reported to the People’s Bank of China. This kind of supervision mode with unified supervision “commander” and mutual cooperation as well as collaborative division of labor among peer business divisions can effectively solve practical problems, such as repeated supervision and unclear supervision responsibilities. The current separated supervision mode leads to parallel supervision subjects at all levels. In addition, the lack of a unified supervision “commander” would easily lead to various phenomena, such as pushing, inducing, and wrangling. Therefore, in order to prevent this, a coordination and cooperation mechanism should be established among various regulatory subjects; first, clarifying the business boundaries of internet finance in terms of content, and then formulating special regulatory rules in terms of system, so as to clarify the regulatory scope and content of various regulatory subjects as well as strengthen the cooperation and coordination among regulatory subjects. By forming a comprehensive regulatory mechanism for internet finance, regulatory efficiency can be improved ^[8].

4.3. Establish an early warning system based on big data

In view of the backward means of internet financial supervision, relevant regulators should innovate the means of supervision and try to establish an early warning system based on big data to strengthen the risk control of the internet financial industry. With the help of the internet, internet of things, human-computer interaction, and other technologies, big data analysis would be able to meet the current processing and analysis needs of massive data. As a representative of emerging finance, internet finance does not only need to clarify the internal development status through big data analysis, but also to warn its own risks based on the analysis results, which provides an advanced means for regulators to strengthen the risk supervision of internet finance. As internet finance can generate huge data information, regulators should collect and summarize transaction data uniformly, establish a perfect dynamic database on the premise of unified data format, and then use the data analysis model provided by the big data analysis center to establish a risk identification model and early warning system to monitor online transaction records and information in real time. The corresponding early warning report regarding the risk can then be issued. Relevant regulatory entities would be able to appreciate the overall risk status of the industry via the early warning report formed by the system and provide direction for clarifying the key points of supervision and completing risk management in the future ^[9].

4.4. Establish a differentiated supervision and evaluation system

In view of the loopholes in internet financial supervision policies and measures, the current situation of risk supervision can be effectively rated on different business platforms on the basis of improving the credit investigation system and drawing lessons from the rating system formed by traditional financial institutions [10]. As the traditional financial supervision has formed a relatively perfect rating system, and internet finance, as an emerging industry, still lacks special regulatory institutions to carry out supervision and evaluation, this situation results in a mixed industry and uneven platform quality. The outbreak of many platform scandals drilled the loophole of the lack of a regulatory evaluation system. They have successfully robbed investors of their funds and brought negative reputation to the industry. Therefore, the rating system of traditional financial institutions should be exemplified, and regulatory evaluation on different businesses of internet financial institutions should be carried out. First, internet financial institutions have the ability to gradually establish credit investigation systems, relying on cloud computing and other information technologies. The credit risk should be evaluated through big data to control the credit risk at the source and form a unified credit evaluation system. According to the actual situation of the internet financial market, an early warning mechanism should be established through different index systems, and the monitoring of credit risk should be strengthened, so as to effectively curb the risks brought by internet financial innovation. The regulatory body should solve the imbalance between the government-led credit investigation system and the private credit investigation system as well as promote their coordinated development, so as to strengthen the control of the credit risk. Secondly, it would be beneficial to mirror the rating system of traditional financial institutions, carry out supervision and evaluation on different business operations of internet financial institutions, form differentiated evaluation systems such as third-party payment platform, P2P online lending platform, and internet financial platform, as well as objectively and fairly reflect the current situation of risk supervision on different business platforms under the internet financial environment. The establishment of differentiated regulatory evaluation system also provides favorable conditions for the regulatory body to make up for the loopholes of regulatory policies and measures as well as improve the regulatory capacity.

5. Conclusion

The development of internet finance is the trend of the development of the times. Its penetration into the economy and society is increasing day by day, which would become a new trend in the industry development. The marriage of internet and finance via technologies, such as big data, social networks, cloud computing, mobile internet, and voice transmission, has brought innovation to China's financial institutions and internet enterprises, improved the efficiency of capital allocation, accelerated the capital flow, promoted the reform of the financial system, intensified the competition in the financial market, and is actively changing the whole financial ecology. At the same time, in this surging wave of internet financial development, it is vital to understand that internet finance still has major problems, such as credit and risk of the financial industry. In the face of risks and challenges along with opportunities, it is important to standardize a healthy and orderly development of internet finance, seek advantages but avoid disadvantages, and promote internet finance to play its role in filling the gap in the financial service market, financing funds, and improving market efficiency.

Disclosure statement

The authors declare that there is no conflict of interest.

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