

Risk Prevention and Regulatory Measures of Internet Consumer Finance Analysis

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Abstract. The emergence of risks has been associated with the rapid development of Internet consumer finance over the past few years, and prevention and regulation have become particularly important. This paper first defines the scope of Internet consumer finance and distinguishes it from the concept of "digital finance", and then analyzes its evolutionary motives from three dimensions: traditional financial institutions, consumer behavior, and regulatory policies. The risks faced by Internet consumer finance are categorized into five major types: operational risk, market risk, credit risk, reputation risk, and technology risk. The paper also discusses the financial regulatory model, regulatory coordination mechanism, and the role of the State Council's Financial Development Commission (FDC) in the construction of the regulatory framework. This paper discusses the feasibility of utilizing blockchain technology to enhance regulatory effectiveness and risk management ability and points out that, given the relatively short development history of Internet consumer finance and the relevant system has yet to be perfected, close attention needs to be paid to data security while utilizing blockchain technology. To sum up, to safeguard the interests of investors and safeguard national financial security, it is crucial to analyze the reasons behind risks and explore effective preventive and supervisory measures.

Keywords: Internet finance; consumer finance; financial risk; regulatory policy.

1. Introduction

The convergence and use of advanced technologies like artificial intelligence, big data analysis, and blockchain, combined with the active support of national policies, there has been a profound transformation of consumer concepts, have collectively promoted the flourishing rise of Internet consumer finance, significantly reduced the cost of financial services and enhanced service efficiency. From 11.2 trillion yuan in 2012 to 53.9 trillion yuan in 2023, China's digital economy has undergone a significant growth since the 18th CPC National Congress, an expansion of 3.8 times in 11 years. Consumers are becoming increasingly accustomed to online shopping and financial services, and the demand for Internet finance is still growing [1]. Internet finance offers convenience to groups that are not covered by traditional financial services and boosts financial services' popularity.

However, at present, China's financial regulatory system still follows a compartmentalized regulatory model, i.e., each government department is assigned to manage its own business according to its respective job responsibilities. In this context, Internet consumer finance, as a new industry, has not yet been subject to targeted supervision by a specialized government department. At the moment, China's economy is gradually becoming more open and the process of reforming the financial system is speeding up, and the links between different financial sectors and financial institutions are becoming closer. The risk of a single financial sub-market will spread to other financial institutions and markets through the market interaction mechanism, crossing the boundaries of the original financial sub-sector and triggering the cross-proliferation of financial risks. If this situation is allowed to continue, it will not only adversely affect the interests of investors but may also jeopardize national financial security.

To comprehensively and deeply understand the risks and regulatory issues of Internet consumer finance, systematic sorting and summarizing of the existing literature is a crucial task. The topic of Internet consumer finance is the foundation for this paper's overview framework, summarizes the issues as "what", "why", "what to be afraid of" and "how to do", to clarify the definition of Internet

consumer finance, the factors that shape it, and the risks and solutions available for it. It aims to help scholars understand the issue of Internet consumer finance more systematically and comprehensively by sorting out and consolidating the pertinent research literature and determining the future research direction accordingly.

2. Definition of Internet Consumer Finance

Chen Changyi, Meng Anyan, and Zhu Shoumiao believe that the Internet consumer finance business is mainly e-commerce, installment shopping, and online lending platforms [2]. Tang Wenjuan and Tang Shanshan define the main body of Internet consumer finance as Internet consumer finance are the traditional commercial banks, consumer finance companies, and other financial institutions and non-financial institutions such as Internet enterprises, such as e-commerce platform enterprises, vertical installment platform enterprises, online lending platform enterprises, which utilize the Internet technology, relying on the Internet platform, to provide credit loans to consumers for consumption (excluding the purchase of housing and automobile) services [3].

There are two different concepts of "homogeneity theory" and "heterogeneity theory" about the concepts of "Internet consumer finance" and "digital finance" in academia. The concepts of "Internet consumer finance" and "digital finance" have two different concepts, namely, "homology" and "heterology". Scholars who advocate the "homogeneity theory" believe that they share the same essence and core, while the latter believe that digital finance and financial technology are in a more mature stage of development than Internet finance. Huang Yiping and Tao Kunyu believe that Internet consumer finance is a financial form of traditional financial institutions and Internet enterprises, using Internet information technology to provide consumers of all classes with financial services to meet their consumption needs [4]. Li Maihao and Gao Xing believe that digital financial inclusion focuses on the use of Internet technology to simplify the process and reduce the threshold, so that more people, especially those low-income and unbanked people who cannot be covered by traditional financial services, can access financial services [5].

Summarizing the existing literature, this paper defines Internet consumer finance as the e-commerce, installment shopping, and online lending services provided traditional commercial banks, consumer finance companies, and other financial institutions are among those affected, along with non-financial institutions like Internet enterprises, for consumers of all classes. Different from Internet consumer finance, digital finance focuses more on inclusion, and is more often found in areas such as "coordinated development of urban and rural areas".

3. Internet Consumer Finance Impact Factors Analysis

There are numerous factors influencing Internet consumer finance, covering multiple dimensions such as economic environment, technological advancement, and market demand. Among them, traditional financial institutions, consumer behavior, and regulatory policies are the three most critical perspectives. The involvement of traditional financial institutions directly affects the diversity and degree of innovation of Internet financial products. The acceptance, frequency of use, and risk preference of consumer financial products determine the capacity and development trend of the market. Formulating and implementing regulatory policies, on the other hand, play a decisive role in upholding market order, defending consumers' rights and interests, and fostering the healthy growth of the industry. These three factors interact and influence each other, together shaping the advancements of Internet consumer finance.

3.1. Traditional Financial Institutions

Tang Wenjuan and Tang Shanshan believe that the limitations of traditional financial institutions in the approval process, risk control, product design, and cost structure have led to their inability to adequately meet the consumer credit needs of the middle and low-net-worth groups, which has

theoretically fueled the development of Internet consumer finance [3]. However, in recent years, more and more traditional financial institutions have been carrying out Internet consumer finance business, which makes the competitive relationship between them gradually transition to a cooperative relationship, and enhances their resource-sharing and market expansion capabilities. At the same time, backed by traditional financial institutions for Internet consumer finance to provide sufficient funds and more mature management experience, the risk management expertise of traditional institutions helps Internet finance to establish a more robust risk control system. In addition, the large customer base of traditional financial institutions can help expand the customer base of Internet finance and promote the market penetration of its products.

3.2. Consumers

Consumers are at the heart of the Internet financial ecosystem, and their behavior and preferences play a decisive role in the health of the industry. With the increase in digitalization, consumers expect more convenient, faster, and personalized financial services, which has prompted fintech companies to continuously launch new products to meet these needs. Cheng Xuejun believes that the Internet consumer finance market is a typical multi-party game, including the capital side (i.e., seller), the platform side, and the asset side (i.e., buyer), which applies the theory of the bilateral market, distinguishing it from the unilateral market where only buyers and sellers are in the game [6]. In this model, according to the theory of Yang Qing, Huang Junjie, and Xiao Liwei, the price of bilateral users is mainly determined by the consumer's will and is also affected by the bilateral demand elasticity, the observability of the transaction volume, the cross-network externality, and the degree of product differentiation [7].

3.3. Supervision

The Guiding Opinions on Promoting the Healthy Development of Internet Finance issued by the People's Bank of China (PBoC) and others defines the categorization and guidance of Internet payment, Internet lending, equity crowdfunding, Internet fund sales, Internet insurance and Internet trust and consumer finance, and clarifies the regulatory responsibilities [8]. Cheng Xuejun believes that the current regulatory challenges of China's Internet consumer finance are mainly credit issues, including the credit system is not yet complete, many financial institutions are not connected to the People's Bank of China's credit system. The effectiveness of credit information is lacking, compared with the Internet big data in the context of financial technology, traditional data, such as basic personal information, credit information, etc., is static data, which is not connected and shared [9].

4. Internet Consumer Finance Risks and Countermeasures

4.1. Risk Classification of Internet Consumer Finance

The risks faced by Internet consumer finance can be mainly categorized into operational risk, market risk, credit risk reputation risk, and technology risk. According to the Core Principles for Effective Banking Supervision formulated by the Basel Committee on Banking Supervision in 1997, market risk, credit risk, reputation risk, and operational risk are inherent risks in the banking industry, and the Principles for Risk Management of E-Banking issued in 2003 suggests that technological risk is unique to Internet consumer finance.

First, operational risk is the risk of loss directly or indirectly triggered by an imperfect internal operation process, faulty employee behavior, or other external events, which are endogenous, controllable, and reducible. Secondly, with the continuous development of information technology, market risk nowadays refers to the possibility of inconsistency between the expected target return and the actual realized return due to uncertainties in market development in the Internet consumer finance business. Third, credit risk can also be understood as default risk, the whole process of the Internet consumer finance business relies on Internet technology and is carried out in the virtual space, and most of the Internet consumer finance products belong to unsecured, unsecured credit loans, which

increases the difficulty of verifying the transaction identities of both parties to the transaction as well as the authenticity of the transaction. Fourth, reputation is a value judgment of the public for the enterprise, a good reputation can attract more resources for the enterprise, and reputation risk will bring a negative impact on the development of the enterprise. Reputation risk is characterized by complexity, concomitant and derivative, diversity, normality, and difficulty in measurement.

Finally, technology risks arise from the insecurity, overpenetration, relative lag, and openness of Internet technology. The insecurity of Internet technology is due to the inability of online systems to achieve absolute security protection and the limited platform capacity of each platform. Nowadays, the interaction and transmission of all kinds of information has a wide range, fast transmission speed, and large coverage, however, the excessive penetration of Internet technology makes the product and customer information security have a high risk of leakage. The relative lag of Internet technology is due to the current development of Internet technology, which is not sufficient to meet the speed of business development. In addition, due to the openness of the Internet, it is susceptible to viruses as well as hacker attacks, leading to risks.

4.2. Regulatory Measures

4.2.1 Regulation theory

Different financial systems are adapted to different regulatory models, and the discussion on single or multilateral regulatory models has been a hot topic of discussion in both academic and practical circles. Jonathan emphasized that the core businesses of different financial sub-sectors are distinguishable but not replaceable and that a complete use of a single regulatory model may lead to regulatory failure [10]. Masciandaro et al. showed that the smaller the market size, the lower the involvement of the central bank, and the better the environment, the easier it is to realize single regulation [11]. Cao Fengqi argues that China should establish an umbrella regulatory system with unified supervision and division of labor [12]. Chen Binbin points out that China cannot hastily adopt a single regulatory model [13].

At the same time, it is important to focus on the coordination between macroprudential and microprudential. Hu Liqin et al. investigated the coordination between macroprudential and microprudential policies in China by constructing dynamic panel equations [14]. Their findings show that the two are not coordinated, so regulators should continue to improve the system and tools of macroprudential policy in the cross-sectional dimension and time dimension, and coordinate with microprudential policy to maintain financial and economic stability. Liu Yuan believes that the separate regulatory system leads to inconsistent standards and regulatory arbitrage in the asset management industry and that regulatory standards should be unified, regulatory arbitrage space should be eliminated, and efforts should be made to achieve regulatory coordination [15]. Gou Wenjun advocates that the concept of penetrating regulation should be introduced into the regulatory system of capital management business to strengthen regulatory coordination [16].

4.2.2 Specific measures

In 2017, the Financial Stability Development Committee of the State Council was established, positioned as A body that is responsible for deliberating and coordinating major issues of financial stability, reform, and development of the State Council, with its office located in the People's Bank of China. Its establishment plays an indispensable role in improving the financial regulatory system, avoiding a regulatory vacuum, and thus preventing and resolving systemic risks.

Blockchain technology has been formally included in China's "13th Five-Year Plan" since the end of 2016. According to Zhang Rui, the use of blockchain technology in the financial field can effectively reduce the risk of financial institutions [17]. Zhu Jinyu defines blockchain technology as a decentralized distributed ledger, relying on consistent consensus mechanisms and encryption technology to ensure data accuracy and security, to build a continuous extension that cannot be tampered with in the data chain [18]. Zheng Yao and Dong Dayong suggested that blockchain has a significant role in helping enterprises improve the quality and speed of information utilization and

reconstruct their risk system [19]. Blockchain technology can effectively alleviate the traditional "information asymmetry" on the right of enterprises, and Jacmle argues that blockchain technology can help supply chain finance to solve the cooperation and synchronization obstacles arising from upstream and downstream enterprises' joint production [20]. Make full use of the information-sharing characteristics of blockchain technology to reverse collateralize accounts receivable on supply chain finance, to achieve more efficient note financing [21].

5. Conclusions

Scholars at home and abroad consider the causes of Internet consumer finance risks to be the exposure of risks due to the relatively short development time of Internet consumer finance and the imperfection of various systems. These include credit risk caused by information asymmetry and imperfections in the credit system, regulatory risk caused by imperfections and lags in policy and supervision, market risk caused by fierce competition, technical risk caused by technical defects, reputation risk caused by product defects, etc., as well as the unavoidable risk factors of emerging physical objects. In terms of regulation, China should establish an umbrella regulatory system with unified supervision and division of labor, while focusing on the coordination of macro-prudential and micro-prudential. When it comes to developing blockchain technology, China is already on the same level as international advanced research. Domestic and foreign scholars agree that the mutual integration of blockchain technology and supply chain finance can effectively solve the problems that SMEs will face when applying supply chain finance, improve financing efficiency, and reduce the cost of financing when enterprises carry out supply chain financing. In addition, scholars at home and abroad generally agree that data has great value in the context of big data and that data, as an important production factor, should receive focused attention for its security.

However, the Internet consumer finance industry spans the two dimensions of finance and information, involves a large number of laws and regulations, and complicated standards, and is still improving, so there may be problems of insufficient research depth and breadth, and untimely updating of research materials. Secondly, the regulation of consumer data security in the Internet consumer finance industry involves more subjects, the stakeholders involved are more complex, and it is more difficult to collect first-hand data. Summarizing the discussions in the existing literature, for future policymaking and academic research, it is recommended to give more attention to the development of regulatory technology, regulatory frameworks for cross-border cooperation, and consumer education and protection measures. In addition, research on international regulatory cooperation and standards for Internet consumer finance is also an important direction for the future.

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