The Innovation Model of Risk Control of Fintech and Regulatory Sandbox

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Abstract: The rise of anything is by no means an accident. As a new financial form brought about by technological innovation, the emergence of fintech is the result of the interaction between certain external conditions and internal needs. Relying on the application of cutting-edge technologies such as blockchain and big data, financial science and technology subvert the credit center service model in the banking sector, forming a huge impact and challenge to the traditional financial industry. However, its rapid development brings difficulties to financial regulation, which brings forth the contradiction between the traditional regulatory mode and the current development of financial technology. The proposal of regulatory sandbox mode opens the way for innovation of risk prevention and control mode, and it is also a new thinking for the development of regulatory science and technology in China.

1. Impact and Challenge of Financial Risk Prevention and Control by the Development of Fintech

1.1. Connotation Analysis of Fintech.

The fintech ecosystem is maturing. However, so far, the definition of fintech has not been unified at home and abroad, and the understanding of fintech is basically the same: it refers to financial innovation driven by scientific and technological progress. With the advent of the Internet big data era, fintech is the product of the mutual integration of modern technology and traditional finance. It USES information technology to improve and innovate financial products and services as well as relevant business models. Released in March 2016, the financial stability board, the financial technology framework of description and analysis of a panoramic view of report, in the report, the financial technology made a comprehensive standard: the definition of "financial" science and technology is a technology to promote financial innovation, the innovation can lead to the production of a new business model, products or services, and to the whole financial market and financial market related substantive impact of related party.

Financial technology is an innovative product of the financial industry in the Internet era. It innovates financial services and a series of products based on Internet, cloud computing, big data, block chain, artificial intelligence and other high and new technologies, so as to improve the efficiency and reduce costs of the financial industry. In general, technology has always been an important part of financial innovation, but technology has not changed the nature of finance, only made it more efficient. Second, fintech is a product of the interaction between supply and demand in society. It is factors such as new technologies, changes in the global financial system, and changes in the financial environment that have converged and interacted over a relatively narrow period that have led to a series of fintech innovations.

1.2. Impact Path Analysis of Financial Risk Prevention and Control by Fintech.

From the scandal-plagued business model of lending platforms, P2P, to the fact that icos have been labeled illegal fundraising and closed down domestic bitcoin exchanges, we can see that the risks of fintech cannot be ignored. The main body of fintech is still finance, and technology is only the carrier serving finance. Therefore, the financial attribute of fintech itself determines its high-risk characteristics, and the application of technology in financial products makes the risk more difficult to find. At the same time, the business exchanges between different industries in the market make

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all kinds of risks interwoven and difficult to distinguish, so in the process of separate operation and supervision, it is easy to see the omission of the regulatory department and shirking responsibility events.

Firstly, China's existing laws and regulations do not match the development speed of fintech. When new financial products emerge, it is difficult for laws to adjust to the new regulatory environment in time. Second, there is a mismatch between fintech innovation and regulatory development. Digital, intelligent, mobile and other means used in banking, securities, insurance and other Internet institutions make the financial system more efficient, but it will lead to the gradual blurry of the boundaries of different financial institutions, make it difficult to promote the separation of supervision in China, serious will lead to the instability of the entire financial field.

Therefore, while enjoying the convenience and prosperity brought by financial technology, we should pay more attention to guard against and defuse the possible financial risks. We will continue to improve the legal and regulatory system without hindering the normal development of fintech. At the same time, we will further explore the functional framework of regulatory authorities and establish a new model of good supervision and control of risks.

2. Analysis of the Fit between Regulatory Sandbox and Fintech Induced Risks

2.1. Analysis on the Connotation and Operation Mechanism of Regulatory Sandbox.

Sandbox, also known as sandbox, is a computer language. Early on it was used to test suspicious software, providing a test environment that did not pose a threat to the security of real systems. Regulatory sandbox is to introduce the sandbox into financial regulation and provide a safe test environment for fintech innovation through new regulatory technologies. In this special environment, the regulatory sandbox will also enable companies to achieve real financial innovation while effectively controlling financial risks through special authorization, providing regulatory advice to test companies, and not taking mandatory measures during the test phase. In March 2015, the UK government first proposed the concept of "regulatory sandbox", which was defined by the financial conduct authority as a "safe space" where fintech products could be tested, so as to achieve the compatibility between financial regulatory authorities and fintech companies.

The main operating mechanism of the regulatory sandbox is to examine the qualification of the enterprises entering the regulatory sandbox, provide a variety of options for different enterprises and set consumer protection measures. These three parts combine and promote each other to "escort" fintech products in the sandbox, and it is also an innovation of regulatory technology. The specific steps are as follows: the first step is to apply for approval, and the regulatory authorities will conduct qualification examination on the enterprises applying for entering the regulatory sandbox. If the fintech innovative products meet the requirements for entering the regulatory sandbox, they will enter the next step. The second step is the stage test, which is also the process of simulated market trading of fintech innovative products. In this stage, regulators will play an important role, not only monitoring the specific trend of products in real time, but also monitoring and adjusting according to the specific situation, so as to protect the legitimate rights and interests of consumers in the market. The third step is summary evaluation. Regulators analyze and evaluate the performance of products in the sandbox, summarize the conclusion of whether they conform to the real market and timely feedback to fintech companies.

2.2. Analysis of the Effect of Regulatory Sandbox on the Risk Caused by Fintech.

First, the regulatory sandbox provides a suitable space for the innovation of fintech products. Neither financial institutions nor non-financial institutions that provide technical support for financial services need to worry about whether they will violate regulatory rules or whether regulation will hinder development. Secondly, it is beneficial for regulators to supervise fintech. In the regulatory sandbox, regulators do not need to worry that excessive innovation of fintech will disrupt the order of the whole financial market, making some operators "take advantage of the loopholes", thus undermining the normal operation of the whole financial market. At the same time, it can protect consumers' own interests. The regulatory sandbox supports suitable fintech innovation projects to be launched on the market, while removing unsuitable fintech products, which to some extent protects consumers from falling into high-risk fintech products.

In June 2016, the UK closed the first phase of the application for "regulatory sandbox". Some countries or regions have recognized and learned from this initiative of regulatory tool. In early 2016, financial regulators in Singapore and Australia signed letters of intent with the UK's financial conduct authority. At the same time, Malaysia, Hong Kong and other countries and regions have also started their own (regional) pilot. Countries and regions make some changes according to their own actual conditions on the basis of learning from the British regulatory sandbox, with different regulatory strength. However, after trial and exploration, there are some shortcomings in the regulatory sandbox. Such as monitoring the authenticity of sandbox test results in doubt; Limited safety space; Challenging the current regulatory system and possibly inducing rent-seeking behavior will raise questions. With the continuous development and improvement of regulatory technology, the regulatory sandbox is also being corrected through trial and error to adapt to the current development of financial technology.

3. Build a New Risk Prevention and Control Model Based on the Rechnical Characteristics of Regulatory Sandbox

3.1. Innovative Design of Pre-Crisis Revention Mode.

The main challenge facing fintech today is the balance between development and risk regulation, and the application of "regulatory sandbox" tools can encourage fintech innovation while effectively preventing and controlling risks. The regulatory sandbox addresses the dilemma facing financial regulators. First, the regulatory sandbox provides a simulated market in which fintech products can be traded; Second, it builds a bridge between regulators and fintech firms. In this way, not only fintech start-ups can make bold innovations within the prescribed scope, but also regulators can keep abreast of financial innovations and accumulate experience for formulating policies and regulations on fintech. Regulators and fintech companies can work together to promote prosperity and stability in financial markets. Thus, any fintech innovation can be tested in a regulatory sandbox before it is launched, thereby reducing the risk of direct entry into the market.

3.2. Real-time Trading Capital Flow Monitoring.

The regulation sandbox adopts dynamic regulation to monitor the market of fintech products tested in the sandbox in real time. Whether it is the turnover of products, cash flow, the audience of products, applicable regulatory means, etc., these data are truly and completely recorded. Regulators can use the data to understand the true state of the fintech company and predict the future development prospects of the product, so as to decide whether to put the tested product on the market. What's more, the regulatory authorities should give the most reasonable evaluation standards to test products under the premise of safeguarding the rights and interests of consumers in the market. In particular, it is necessary to strengthen the monitoring of transaction capital flow so as to effectively prevent and defuse liquidity risks.

3.3. Prevention and Control of Moral Hazard.

On the one hand, the access to the regulatory sandbox is limited by the regulatory authorities. Only enterprises that meet the assessment requirements of the regulatory authorities can enter, and their entry conditions are relatively harsh. On the other hand, once the financial products or services developed by enterprises successfully pass the regulatory sandbox test and meet the corresponding evaluation criteria, they can be put into the market for large-scale promotion. Since companies need a certain time cost when submitting applications, entering the regulatory sandbox also needs to meet the required test time. Fintech innovation faces a rapidly changing market environment, which will delay the best time for the company to enter the market. This may lead to rent-seeking behavior. For enterprises applying for entering the sandbox, in order to maximize their own interests, they may violate the bottom line of morality and law and seek potential profit space from the game relationship behind the regulatory bodies. Therefore, it is urgent to establish and improve the information disclosure system, update the financial science and technology supervision concept, improve the financial supervision laws and regulations system, strengthen the construction of supervision team, improve the quality education of financial supervision personnel and so on.

4. Conclusion

In the future, the development of fintech is promising, but it still needs to improve the capacity of scientific and technological innovation and the continuous improvement of financial rules and regulations to make it more efficient, safe and transparent. It enables the traditional financial sector to keep up with the pace of The Times, constantly develop financial products and business forms, and realize the full coverage of financial services while meeting the requirements of high efficiency and low cost, making inclusive finance a reality. Fintech is an important product of the application of modern technology in the financial field, but it also breaks through the control of traditional financial industry and challenges the regulatory authorities to some extent. In order to seek the unification of fintech supervision and development, the proposal of regulatory sandbox model creates new ideas for solving regulatory problems, which can not only promote the development of fintech, but also play the role of financial supervision. According to our own national conditions, China can learn from the advanced regulatory technology of foreign countries, promote the matching of China's regulatory science and technology with the development of financial science and technology, and improve the safety and efficiency of the financial market. Therefore, only by deeply integrating science and technology with regulation without jeopardizing financial stability and consumers' rights and interests can the innovation and development of fintech be further promoted.

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