

The Impact of Sandbox Mechanism on China's Financial Innovation Supervision

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Abstract: In recent years, the financial crisis triggered by the economic recession out of the mobile Internet, cloud computing, big data, block chains and other cutting-edge technologies represented by the rapid rise of financial technology (FinTech) industry. In the combination of modern information technology and traditional finance, financial technology plays an important role in promoting financial innovation and forms a financial form to enhance the quality of financial services. However, the active development of financial technology has also put forward high conditions for monitoring financial innovation. In order to prevent the risks brought about by financial reform, there has been a “regulatory sandy ground”. On this basis, “regulated sand field” as the research object first understands the operation mechanism of “regulated sand box”, compares the “regulated sand field” policies of different countries and regions, and analyses the application of “regulated sand field” in China. Finally, combining with the reality of China's financial innovation and development, we should make positive progress in innovating the financial supervision mode of “regulatory sandbox”.

1. Introduction

With the development and high-level of China's economy, the traditional financial service system has been unable to meet the financial needs of economic and social development. Therefore, they also pointed out that at the 19th National Congress of the Communist Party of China, we should deepen the reform of the financial system, actively carry out financial innovation, and reform through innovative financial commodities. Financial service model and financial service process make financial services more efficient and transparent. However, financial innovation should be related to innovation collusion risk. Focusing on the lack of innovation and supervision, financial risks can even lead to financial crises. Therefore, in order to promote the healthy and controllable development of financial innovation, China can control risks within the manageable scope and promote financial innovation, which can be learned from the “regulatory sandbox” mechanism of foreign countries [1].

“Regulatory Sandbox” is a demonstration square for financial innovation supervision. Financial institutions can solve the problem of information asymmetry and interconnection risk, and provide clear policy guidelines for financial innovation and financial supervision [2]. In April 2018, the “Closed-circuit Seminar on the Supervision of Sand Box and Application Program” sponsored by the Provincial Association of Monitoring and Sand Prevention and Promotion Industries and Information Technology discussed the operation mechanism and application of “Sand Box for Supervision” from the perspectives of science and technology, laws and regulations and financial supervision. Scenario, and explore how to use regulatory technology (RegTech) to identify and measure the new financial innovation risks brought by financial technology.

2. Analysis of Operation Mechanism of “Sandbox for Supervision”

In recent years, the financial innovation of financial technology has developed rapidly, and the efficiency of financial resources allocation has been effectively improved. However, the financial and cyclical risks brought by information technology risks and operational risks are more complex

and hidden, so it is necessary for financial regulatory authorities to balance financial innovation and risk prevention urgently. In order to achieve this balance, regulatory sandbox can play an important role in improving the efficiency of financial innovation and preventing financial risks [3].

2.1. The connotation of “supervision sandbox”

In March 2015, the British Financial Corporation (FCA) recognized that the financial technology industry plays an important role in promoting economic and social development, and proposed the concept of “Regulatory Sandbox”. Sandbox's so-called “rules and regulations” mainly protect consumers'rights. Financial innovation provides “safe space” for enterprises. Under the new financial premise of the testing principle of “supervising sandbox”, the significance of existing restriction rules. Victory for product safety and precision, financial innovation and financial supervision.

2.2. Operation mode of “supervisory sandbox”

Determine that the test subject “regulatory sandbox” mainly takes financial science and technology as the test object. Enterprises test and predict the risks brought by technological innovation through the traditional financial industry and solve the problems. In order to encourage and support financial innovation, all countries and regions have relaxed the conditions of the demonstrators, which has stimulated the innovative enthusiasm of financial technology enterprises. Whether financial science and technology enterprises can use the “regulatory sandbox” to test is mainly judged from the following four aspects: whether financial science and technology enterprises have test enthusiasm; whether financial innovation products are conducive to the development of the financial industry; whether financial innovation brings convenience to consumers and investors; and the purpose of the test is very clear [4].

Choosing test items, the necessity and adequacy of examination are the benchmarks for choosing test items in different countries and regions. The necessity of testing is an innovative project, which can not be tested by any other means except “regulatory sandbox” [5]. For the adequacy of testing, it means that testing has theoretical and practical importance: on the one hand, testing can convey new ideas of financial regulation, improve the weakness of poor interaction of traditional regulation; on the other hand, testing can balance the interests of regulators, enterprises and consumers, and establish a good relationship. Cooperation mechanism.

After entering the test, if the regulator determines the object of the test and test project, then the testing company enters the test procedure. The testing process of “supervised sandbox” includes the following three steps:

First of all, the Office of Supervision issued the test application process and inspection standards. Since then, financial technology companies have submitted test applications in accordance with the rules and rules of the review department, test purposes and basic principles. Regulators receive applications and review them in accordance with inspection standards; control agencies and contractors agree on test dates and test plans, and help contractors develop market plans. If the examination fails, the exam will be over.

In the testing stage, the regulatory authorities should continuously monitor the testing process. If the testing process is safe and effective, the examination authorities must give their consent at the end of the test.

Table 1 “Sandbox of supervision” in different countries and regions

Region	Britain	Singapore	Hong Kong
Publish time	2016.5	2016.6	2016.9
Supervisor	FCA	MAS	HKMA
Test subject	Financial institution	FinTech	Local Bank
Application of Technology	Big Data, Block Chain, Artificial Intelligence, Mobile Payment, Electronic Transaction	Artificial intelligence	Digital Identity Recognition
Test Quantity	42	1	15

At the end of the evaluation phase, the applicant submits a summary of the examination to the

regulatory body based on the testing of innovative products. If the test results meet the purpose and evaluation criteria of “supervised sandbox” test, then the applicant enterprises can formulate development strategies and conduct extensive marketing [6].

2.3. The role of the sandbox mechanism

That will further help you remove regulatory barriers. In addition, “regulatory sandbox” can eliminate regulatory barriers and re-determine the relationship between government and market. It can not only promote financial innovation, but also prevent and control the effectiveness of financial regulation. In addition, financial innovation has relaxed the provision of the financial environment, and “sandbox” is a financial technology enterprise. Financial technology enterprises timely and effectively prevent risks brought about by risks and restrict the feedback analysis from the authorities for consumers. I will expand my experience in financial markets in the future.

It helps to further protect financial consumers. The protection of financial consumers'rights is reflected in the following three aspects: first, organizational integrity, testing time, potential risk and risk compensation machinery; second, organization, consumers can timely recognize the testing situation of the project, can confirm the testing; and third, active investment funds. The market of financial technology products will promote the continuous improvement of service quality and level of financial technology, and enterprises will provide better products and services to consumers [7].

Further strengthen information sharing. In the “regulatory sandbox” pilot plan, the exchange of statistical data in various fields can be strengthened through settlement, investment, fund management, insurance and other methods, so as to achieve information sharing. At the same time, auditors should establish a risk early warning management mechanism based on the feedback information of testing companies, strengthen risk prevention, and improve the effectiveness and accuracy of supervision. In addition, innovative enterprises and regulatory authorities have established good communication mechanisms. In order to make financial innovation more flexible, we must continue to improve the regulatory system through information sharing [8].

3. Policy Analysis of “Sandbox of Supervision” in Different Countries and Regions

Since 2015, the United Kingdom, the United States, Singapore, Canada and Hong Kong have all implemented the “regulatory sandbox” mechanism. Through this restrictive measure, these countries and regions have created a good environment for local financial development. It will also improve the existing financial regulatory system and promote financial innovation and development.

3.1. Implementation of “sandbox for supervision”

Table 2 Standard types and cycles of “regulatory sandbox” areas in different regions

Region	Britain	Singapore	Hong Kong
Application area	Investment Management, Payment and Liquidation, Market Infrastructure, Financing	Investment management	Market infrastructure
Audit criteria	It is helpful to solve the problems of financial industry; enterprises have perfect exit mechanism; enterprises have a sense of social responsibility and can create social value.	Favorable to consumers and investors; able to solve major problems at present; Market promotion plan has been formulated after the completion of the test.	Innovative products and services; complete response to risks
Business type	Retail of Financial Institutions Products such as Intelligent Investment, Electronic Money Platform, Software Platform, Banking Insurance, etc.	Intelligent Insurance Accounting	Fast Payment, Virtual Bank, Application Programming Interface to Identify Customers by Voice and Vein
Test cycle	Six months	Elasticity	Depending on the project

The report cites examples from the United Kingdom, Singapore and Hong Kong to reanalyze,

analyze and compare the similarities of the three aspects of regulatory bodies, auditing standards, the strength and scope of application of the rules and regulations, and the current rules and regulations (see table). This is to provide reference for the development and application of “supervised sandbags” in China [9].

3.2. Implementing characteristics of “supervisory sandbox”

Through the comparison of the “regulatory sandbox” policies of the United Kingdom, Singapore and Hong Kong, we can see that the specific implementation of the three “regulatory sandboxes” is similar, but because of the different government policies, financial environment and expected objectives, they also have their own characteristics.

Britain. In order to realize the combination of financial technological innovation and financial supervision, FCA introduced the “Sandbox of Supervision” system in May 2016. Since its establishment, the UK's “regulatory sandbox” has adopted conventional centralized detection methods and strict screening standards. In October 2017, there were 146 project applications, 44 of which were tested. In three to six months, the FCA will allow financial innovation products to pass the exam into the financial market. At the same time, the testing process of “supervisory sandbox” should be improved in time, and the monitoring depth should be improved continuously according to the monitoring differences in the testing process.

Singapore. In order to promote the construction of a “smart country” and the healthy development of financial technology, Singapore Financial Institutions (MAS) was proposed in June 2016 as a “standardized sandbox” mechanism. In November of the same year, “Financial Technology Regulation Sand” was promulgated. The box guide defines the objectives and principles of regulation. This mechanism is different from that of Britain. The purpose and principle of Singapore is to select an approved recruitment method for the test project. The test time is unlimited and the management mode is more flexible. However, its main scope of application is limited in the field of insurance. Singapore launched its first project in May 2017. Next are customer authentication, personal customer acquisition guide, artificial intelligence calculation premium, mobile applications of face recognition technology. Compared with traditional insurance companies, this model not only enriches the types of insurance companies, but also provides more convenient and efficient services for consumers. This also brings win-win help to financial companies and traditional insurance companies.

Table 3 Implementation of “sandbox for supervision” in different countries and regions

Region	Britain	Singapore	Hong Kong
The relationship with the current regulatory system	Financial innovation may conflict with the current regulatory system and violate regulatory rules.	Supervised by MAS	Mainly engaged in HKMA permitted business, business scope is narrow
Exit mechanism	The test period expires	Failure to complete the deadline for extension	The scope of testing is beyond the scope of HKMA supervision
Supervision	In the testing stage, the supervision requirements should be reduced appropriately, the enterprises under test should be given trial and error space, and flexible supervision should be implemented, but supervision can not be evaded.		

4. Feasibility of the Application of Sandbox Mechanism in China

Because information technology such as big data, cloud computing and block chains penetrate into the financial industry, China's financial system, center, network, and electrical characteristics, as well as the current regulatory system can no longer meet the requirements of financial regulation in the new era, China is basically the realization condition of “regulatory sandbox”. Therefore, it is necessary to explore the establishment of a Chinese-style “regulatory sandbox” with three possibilities.

4.1. It has a good foundation for development.

Firstly, financial innovation represented by financial technology is developing rapidly. The regulatory authorities recognize the importance of regulatory innovation and provide a useful “soil” for the implementation of the “regulatory sandbox” mechanism. Second, China's financial control system implements macroeconomics. Careful supervision (similar to the “regulatory sandbox” mechanism) provides a policy basis for financial innovation supervision; once again, financial regulatory authorities support the “regulatory sandbox” model. The work of supervision has been carried out more smoothly.

4.2. Is the need to guard against risks

China's financial technology has realized the integration of information technology and financial industry. It also plays an important role in promoting the comprehensive national financial strategy and effectively allocating financial resources. However, with the development of financial technology, the risk of management institutions is relatively late, so it is very likely to lead to erroneous operation and safe trading information. In order to interfere with the regulation of financial science and technology innovation, it is chaotic and chaotic and will be arrested. China can learn from the experience of implementing “regulation of beaches” overseas to strengthen credit management and dynamic supervision for financial innovation.

4.3. It can be an important supplement to the existing laws and regulations.

Financial supervision laws and regulations are the necessary guarantee for financial innovation. However, due to the lag of laws and regulations, China has not yet formed effective financial innovation regulatory regulations. Under the background of China's mixed operation, the contradiction between financial innovation risk and financial supervision is becoming increasingly prominent. The “sandbox” mechanism can reduce certain regulatory and legal framework requirements during the testing period of new products. In a relatively relaxed financial environment, the best way to prevent risk investigation is to make an important supplement to the imperfection of the law.

5. Conclusion

Financial innovation relying on information technology has greatly broken the boundaries between industry and geography. However, countries and regions have published relevant research reports on financial reform, and so far no unified regulatory model has been formed. Therefore, it is very important to strengthen the restrictive cooperation between cross-industries and regions. Under the background of globalization of financial reform, banks, insurance, securities and other regulated departments in various countries are facing the problem of financial supervision reform. Therefore, China's financial authorities have indicated that the relationship between other countries and regions should be restricted, the regulatory beach sharing mechanism should be strengthened, rules and regulations experience established, cooperation exchanged and strengthened, coordination and integration should be improved, and the fruits of financial technological innovation should form a common supervision for sharing, market, industry and region. In addition, financial supervision departments and economic free trade circle construction experience can learn from the “regulatory sandbox” pilot area, financial industry groups, rational allocation of social resources, promote social co-governance, enhance regulatory synergy.

The unification of Finance and technology and sandbox supervision mechanism are flexible coaches of financial technological innovation. In order to realize modern information technology, they use the shortcomings of traditional regulation mode, in order to make up for rules and regulations, cut costs, and improve management efficiency, and then truly realize the social value of financial innovation. However, with the change of financial market form, the implementation of “sandbox supervision” is restricted in order to make it easier for people. As the information security and legal issues of supervision have not been effectively solved, the mechanism of “sandbag

supervision” needs to be further improved and developed. Challenges and opportunities coexist, and the “sandbox supervision” mechanism really promotes the flow of financial regulation and the healthy development of financial innovation.

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