

# On the Construction of China's "Regulatory Sandbox" Legal System under Fintech

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**Abstract.** In recent years, Fintech drives the innovation of finance. With the development of Internet finance, new financial innovative products such as mobile payment, unmanned bank and intelligent investment adviser are integrated with big data, cloud computing, blockchain and artificial intelligence, which deeply affect people's lives. However, Laws are lagging behind. When financial innovation is in conflict with existing regulations, strict supervision system will hinder the development of financial innovation. If financial innovation products grow barbarously, great financial risks may break out and cause social unrest. How to control financial regulation is a hot topic in the field of financial law. Combined with the international practice and China's special national conditions, we can consider introducing the "regulatory sandbox" to ease the contradiction between financial innovation and financial supervision.

**Keywords:** Fintech, Financial innovation, Financial regulation, Regulatory sandbox.

## 1. Introduction

The concept of regulatory sandbox was first proposed by the British government in March 2015, and the first regulatory sandbox project was officially launched in May of the same year. Foreign research on regulatory sandbox has developed from the introduction and evaluation of regulatory sandbox system to the improvement of existing regulatory sandbox system. There are two major dilemmas faced by the UK's financial conduct authority: one is regulatory barriers, the other is consumer protection (Charlotte Hill, 2017); therefore, to reduce regulatory rules for sandbox regulatory test subjects, consumer interests should be fully considered in the test process: improving safeguard measures and withdrawal mechanism (Christopher Woolard, 2017); regulatory sandbox itself is a financial innovation, but also promotes the development of financial innovation (Charlotte Heale, 2017). Regulatory sandbox was first mentioned in mainland China as a report—Regulatory sandbox promotes innovation and development of Fintech, which published on China urban financial news published on June 20, 2016. Mainly based on the regulatory sandbox test carried out in the UK, this paper analyzes the feasibility and necessity of introducing China and puts forward relevant plans. Since 2017, the term "regulatory sandbox" has been growing in popularity, and scholars in various fields have put forward their own academic views and system construction in this field.

To sum up, with the purpose of building China's regulatory sandbox system, this paper mainly discusses from four aspects: firstly, describe the concept and essential characteristics of regulatory sandbox system; secondly, introduce the international application and legal regulation of "regulatory sandbox" under Fintech; thirdly, elaborate the necessity and feasibility of building the legal system of "regulatory sandbox"; fourthly, consider how to establish the Chinese "regulatory sandbox".

## 2. The Essential Characteristics of "Regulatory Sandbox" System

The main foothold of Fintech is technology. The core is to use the emerging Internet information technology to transform and innovate financial products and business models. FSB (Financial Stability Board) defines it as financial innovation brought by technology, which can create new business models, applications, processes or products, thus have a significant impact on financial markets, financial institutions or the way financial services [1].

## **2.1 Fault Tolerance**

In the supervision of Fintech, regulators need to deal with the contradictions of "innovation trial and error and risk control", "legal stability and flexibility", "strict and flexible law enforcement" [2]. The development of Fintech can not avoid the bottleneck. The products and services of financial innovation need to be constantly "trial and error" in the market. Therefore, in order to better develop the financial market, financial regulators need to have fault tolerance mechanism, advocate friendly supervision, and allow innovative enterprises to have a certain degree adventure, which can stimulate the enterprises' innovation.

## **2.2 Flexibility**

First of all, regulatory sandbox makes personalized scheme for enterprises in sandbox, which is temporarily not subject to the provisions of general supervision rules. In the face of sudden financial risks, the test plan can be adjusted at any time. In the space of regulatory sandbox, we should break some regulatory rules, help regulators better find the contradictions in financial innovation regulation and conduct experiments, which can balance the relationship between financial stability and financial innovation. Secondly, Sandbox regulation is not the real market after all. It will be looser than the real market in terms of exit mechanism, and the conditions for exit will be more flexible than the general market. Regulatory sandbox system is an effective way to solve the contradiction between prudential regulation and financial innovation competition [3].

## **2.3 Reflect the Interests of Consumers**

The first thing to ensure financial supervision is financial security. The construction of regulatory sandbox system not only protects the rights and interests of consumers, but also promotes the stable development of financial industry. Consumers play an important role in regulatory sandbox. Consumers not only participants in the test plan, but also supervisors of the test plan, which is of great significance to the promotion of regulatory sandbox. Therefore, we should always adhere to the concept of consumer protection, protect the rights and interests of consumers, and improve the consumer protection mechanism.

# **3. International Application of "Regulatory Sandbox" System**

Under the background of the vigorous development of Fintech, the regulatory sandbox system first established by the UK has been used for reference by all countries and regions in the world. Britain, Singapore and Hong Kong are the representatives of incomplete mixed supervision system, mixed supervision system and separated supervision system respectively. As the first creation of regulatory sandbox system, Britain's advanced supervision concept is worth our reference. As the financial center of Asia--Singapore and Hong Kong, are also the focuses of our research.

## **3.1 The Regulatory Sandbox System in the UK**

The UK's regulatory sandbox was born in the context of Fintech. The implementation of quasi bimodal regulatory model in the UK belongs to the incomplete mixed financial regulatory system. On April 1, 2013, Financial Conduct Authority (FCA) was set up separately from the financial services authority. In order to build a "global Fintech center", FCA changed its previous regulatory thinking and paid more attention to the conduct and access regulation of financial enterprises in the UK. In October 2014, FCA established Fintech "Innovation Hub" to provide step-by-step regulatory support for Fintech enterprises' innovation projects and help them promote innovative products and service programs to the financial market [4]. In May 2016, FCA set up a "regulatory sandbox" system to further promote the development of financial technological innovation.

As for the qualification criteria, enterprises that meet the sandbox test must meet the five criteria set by FCA: in scope; genuine innovation; consumer benefit; need for a sandbox; ready for testing [5]. As for the operation process, the length of sandbox testing in the UK is six months, which is divided into six steps (as shown in the figure below): the first step is to apply to FCA; the second

step is to evaluate FCA and select suitable testing subjects; the third step is to establish sandbox monitoring scheme with FCA, which mainly includes the expected effect of testing, reporting requirements and protection measures; the third step is to establish sandbox monitoring scheme with FCA; the fourth step is that FCA allows enterprises to carry out regulatory sandbox, and achieve real-time supervision; step five is to test and supervise, if the situation changes during the test process, leading to the enterprise not meeting the regulatory sandbox requirements, it is necessary to deal with it in a timely manner; step six is that the enterprise submits a summary report, then FCA evaluates it; step seven is that the enterprise decides whether to further promote it to the market through the test .

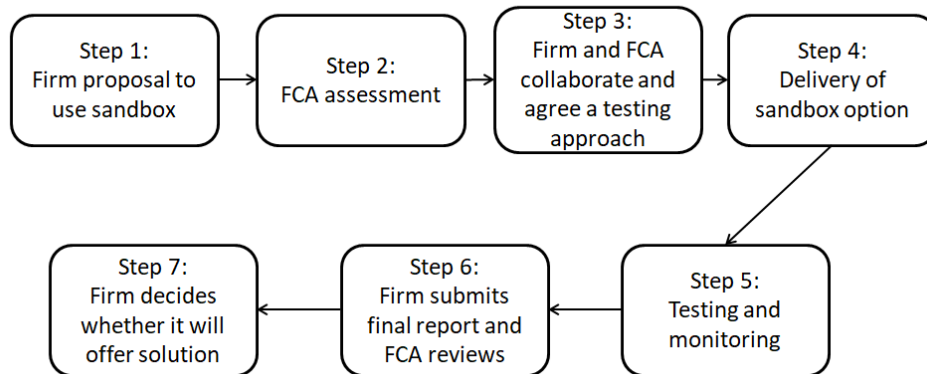


Figure 1. Flow chart of UK regulatory sandbox [6]

One of the characteristics of UK regulatory sandbox is the protection system for consumers. Article 3.15 of the regulatory sandbox stipulates four methods of consumer protection. The first method is that the subject of regulatory sandbox testing can only test the scheme that has been informed to the consumer, and the consumer has the right to know about the potential risks and available remedies; the second method is that FCA and the testing agency negotiate and reach an agreement on a case; the third method is that the consumers of regulatory sandbox agency enjoy the rights of ordinary consumers, when their rights and interests are damaged, for example, it can get the protection of Financial Service Compensation Scheme (FSCS) and Financial Ombudsman service (FOS); the fourth method is to bear the loss by sandbox regulators, provided that sandbox regulators have funds to realize it [7]. Among them, the second method is more practical. On the one hand, this method is in line with the FCA's responsibility--to review whether the protection measures of consumer information disclosure and compensation arrangements are implemented, and to urge enterprises to take corresponding consumer protection measures according to the specific test situation.

FCA has announced to accept the first batch of sandbox regulatory test applications since June 2016. As of July 8, 2016, FCA has received 69 application enterprises, 24 of which have been qualified and started sandbox regulation in October 2017, with 6 months' test period [8]. In the first test, 75% of the enterprises passed the test, and 90% of the enterprises passed the test continued to push forward to a broad market [9]. On October 15, 2018, FCA began to accept the application of the fifth batch of sandbox regulators and conducted the fifth sandbox test. FCA received 99 applicants, 29 of whom were accepted as the test subjects of sandbox regulators. At present, the Sixth Batch of regulatory sandbox projects have been applied for as of December 31, 2019.

### 3.2 The Regulatory Sandbox System in Singapore

Singapore has a mixed financial supervision system. The central financial regulatory body shall exercise unified management over the financial industry. After the Asia Pacific crisis, Singapore, as one of the world financial centers, according to its national conditions, Monetary Authority of Singapore (MAS) established Fintech Department in May 2016 to manage Fintech and financial innovation related affairs, aiming to support the innovation of Fintech enterprises, and protect

consumers' benefits. MAS issued the sandbox guidelines for Fintech supervision [10] on November 16, 2016, which decided to relax the supervision on the basis of strict supervision, reduce financial risks and optimize the allocation of financial resources through regulatory sandbox.

In terms of qualification review, Section 4.1 of "Regulatory Sandbox Guidelines" points out that testing subject are Financial Institutions, Fintech Firms and Professional services firm partnering with or providing support to such businesses. MAS adopts the principle of "filling in the gap", and 5.5 of the guidelines stipulates that sandbox regulation cannot be applied under the following two conditions: firstly, the financial services provided are already existing in Singapore, unless different technologies or the same technology application mode are different; secondly, the applicant fails to conduct due diligence, including the financial services under test in the experimental environment and knows the relevant laws Laws and regulations. In terms of operation process, Singapore's regulatory sandbox system is divided into three major steps: firstly, application phase, where the applicant submits an application form with relevant supporting materials, and the regulatory authority reviews it within 21 days; secondly, assessment phase, to review whether the applicant is qualified; thirdly, test phase, adjust the sandbox regulatory plan appropriately according to the actual situation. The specific process is shown in Figure 2:

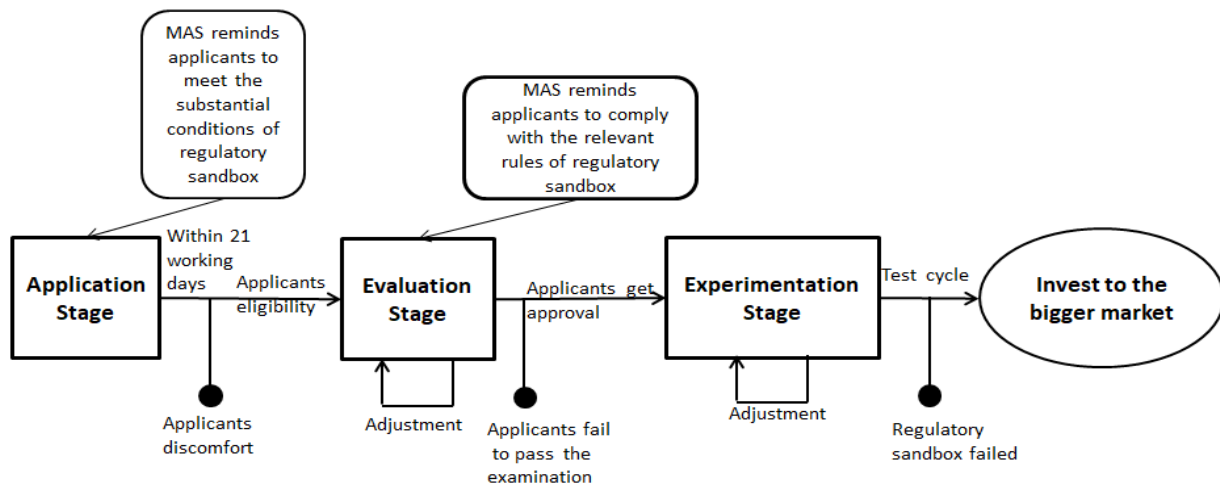


Figure 2. Flow chart of Singapore regulatory sandbox

### 3.3 The Regulatory Sandbox System in Hongkong

In September 2016, the Hong Kong Monetary Authority (HKMA) issued the "Fintech Supervisory Sandbox" and established the regulatory sandbox system. The system allows banks and their partner technology companies to invite a limited number of customers to participate in the operation of Fintech projects without fully complying with the regulatory requirements of the HKMA. This arrangement allows banks and technology companies to collect data and user opinions in order to make appropriate changes to new technology products, so as to speed up product launch and reduce development costs[11].

Hong Kong's regulatory sandbox system was initially applied to the banking sector, including banks and Fintech enterprises cooperating with banks. On the basis of the introduction of the regulatory sandbox system by the Hong Kong Monetary Authority, in September 2017, Securities and Futures Commission of Hong Kong and Insurance Authority of Hong Kong set up their respective regulatory sandbox systems, forming the Hong Kong separate regulatory sandbox system.

In November 2017, HKMA upgraded the sandbox and launched the sandbox 2.0 (FSS 2.0), mainly adding three aspects: firstly, set up the Fintech Supervisory Chatroom, and feed back to banks and technology companies at the early stage of the development of Fintech projects. Besides, enterprises contact HKMA through email, video conference, and face-to-face chat. The chatroom system has increased the communication channels between enterprises and HKMA, so as to get financial feedback more quickly. It is more conducive to the implementation of the sandbox system; secondly, technology companies can directly communicate with the HKMA through chatrooms

without going through banks, which makes the communication smoother and improves the efficiency of communication; thirdly, the sandbox of the HKMA, Securities and Futures Commission of Hong Kong and Insurance Authority of Hong Kong coordinate with each other to provide "a single point entry", which makes the relationship closer among three regulators.

As of the end of January 2020, 111 new technology products have been put into trial use with sandbox (see Figure 3)[12]. Of all the regulatory sandbox projects, 73 are the cooperation between banks and technology companies, which promotes banks and their partner technology companies to launch Fintech projects faster, while reducing costs and improving product quality.

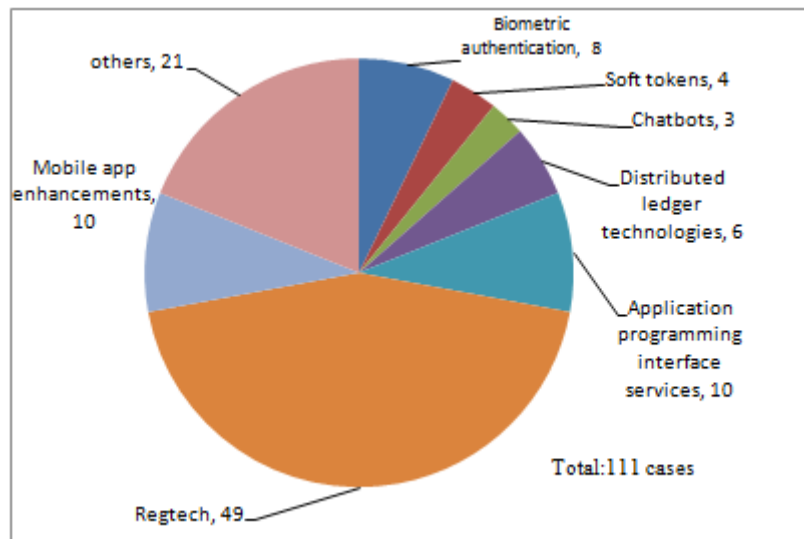


Figure 3. Technical distribution of sandbox projects in Hong Kong (By the end of January 2020)

## 4. The Necessity and Feasibility of Constructing the Legal System of "Regulatory Sandbox" in China

### 4.1 The Necessity of Constructing the Legal System of "Regulatory Sandbox"

It is of great significance for the healthy development of the financial industry to build a regulatory sandbox legal system. First of all, for financial innovative enterprises, Regulatory sandbox is conducive to optimizing corporate governance, reducing the time to enter the market at a lower cost. Besides, a certain fault tolerance mechanism is conducive to innovative enterprises to be more active in improving their products and services. For regulators, it is conducive to updating regulatory concepts, and strengthening the relationship between financial regulators and technological innovation companies. For consumers, financial innovative products and services can obtain high-quality and high-tech experience at a lower cost through monitoring.

### 4.2 The Feasibility of Constructing the Legal System of "Regulatory Sandbox"

From the perspective of historical experience, China's reform of the financial industry in the way of reform pilot, in line with the concept of regulatory sandbox. For example, the establishment of special economic zones and the establishment of Shanghai Free Trade Zone, in principle, experimental reform programs within a fixed administrative area, which can be adapted to relevant laws and regulations in the experimental area, or special economic policies can be formulated to facilitate regional tests. Such reform and test methods are similar to the "limited authorization", "license exemption" and "differentiated supervision" of regulatory sandbox" [13]. From the reality, the rapid development of Fintech needs supporting measures of financial supervision. For example, consumers are increasingly using mobile quick payment for transactions, which is a major challenge to traditional financial institutions[14]. Accordingly, regulatory agencies need to issue relevant laws and regulations to regulate emerging affairs. Legislators should correctly deal with the contradiction

between legal compulsion and flexibility, and coordinate the relationship between financial risks and financial innovation and development.

## **5. The Construction of Chinese Legal System of "Regulatory Sandbox"**

The risk of Fintech is latent and sudden. If it is not handled properly, it is easy to have systemic financial risk. Therefore, we need to change the traditional regulatory thinking, deal with the relationship between financial innovation and financial supervision, learn from other countries and regions on the advanced experience of regulatory sandbox, and build Chinese regulatory sandbox legal system.

### **5.1 Update the Concept of Financial Supervision and Coordinate the Relationship between Financial Technological Innovation and Supervision**

We need to update our regulatory thinking and properly handle the relationship between Fintech and financial innovation. First of all, reduce the administrative intervention in financial supervision and give full play to the role of financial supervision institutions. On the one hand, regulatory agencies should regulate the behavior of enterprises; on the other hand, they should establish friendly relations with enterprises to guide and evaluate the testing enterprises. Secondly, financial regulation should be flexible and targeted. Facing the rapid development of Fintech in China, financial regulatory agencies should adjust regulatory policies in time according to the actual situation, fully grasp the direction of financial innovation, and control financial risks within an appropriate range. Regulatory sandbox system is a long-term mechanism to coordinate Fintech and financial supervision, which embodies the idea of early prevention and early intervention. Technology innovators need to communicate with regulators to find new technologies, which ensure that the regulatory framework remains adaptive [15].

### **5.2 Update Legislation and Formulate Administrative Rules and Regulations Specifically for Regulatory Sandbox**

Regulatory sandbox also needs legal rules to provide guidance and legal basis and guidelines for its specific implementation [16]. At present, we can consider to formulate "regulations on supervision of sandbox management", with the participation of Financial Stability Committee of the State Council and the People's Bank of China in legislation and the formulation of departmental administrative regulations. First of all, we should follow the principle of fairness, justice and openness. For the selection of the test subject of regulatory sandbox, it is necessary to strictly follow the rules and regulations, reduce the involvement of subjectivity, and avoid the occurrence of dark box operation; secondly, it is necessary to protect the interests of consumers. The regulatory sandbox system in the world embodies the protection of consumers' interests. When making relevant laws, we should not only protect consumers' right to know, information and privacy in the process of regulatory sandbox, but also protect consumers' right to compensation for damages in the mechanism of sandbox withdrawal.

### **5.3 The Specific Operation Mechanism of Legal System of Regulatory Sandbox**

#### **5.3.1 Select the Appropriate Regulatory Sandbox Test Subject**

The subject of regulatory sandbox testing should be in line with the current development of Fintech in the country and region. For example, the UK adopts the "substantial innovation" standard, which is different from other products; Singapore adopts the "fill in the gap" principle, which is different from the existing products and services in Singapore. The main body of regulatory sandbox in China starts from a certain industry, for example, imitating Hong Kong to formulate a conditional exemption mechanism, allowing financial innovation enterprises to break through the existing regulatory rules under certain conditions. When identifying, we should pay attention to that "complexity" is not financial innovation [17].

### **5.3.2 Select Appropriate Executive Body of Regulatory Sandbox**

From the practical experience of countries and regions, regulatory sandbox has a special executive body. For example, FCA and MAS. The main body of China's regulatory sandbox can follow the traditional supervision pattern of "one bank, two meetings" as the main body, and the local financial management departments carry out the dual peak mode of auxiliary supervision. At the same time, in terms of legal authorization, we should make separate legislation on regulatory sandbox, and fix the supervision scope, implementation procedures and other relevant specific rules of regulatory sandbox subject in the form of law.

### **5.3.3 Pay Attention to Financial Consumer Protection**

The test subject of regulatory sandbox needs to put the public interests of financial stability and consumer protection first [18]. Specifically speaking, first of all, test subjects should actively inform consumers of the risks of products and tests, and bear the obligation of risk disclosure. Secondly, we need to protect consumers' rights to compensation for damages, clear the scope, method and amount of compensation for damages. Thirdly, we need to pay attention to protecting consumers' information security; in the process of supervising sandbox testing, personal information should be fully guaranteed. Fourthly, strengthen the information disclosure system, and implement the information disclosure system into the overall process of the test. For example, the technological innovation enterprises participating in the test should regularly disclose the major events of the enterprise to consumers; regularly test reports; prompt obligations for risk events, etc. Fifthly, regulators can also set up financial consumer protection fund. If Fintech enterprises have been unable to provide full compensation to consumers participating in the test, financial consumer protection fund can replace Fintech enterprises to compensate consumers [19]. All in all, the innovative products and services provided by the regulatory sandbox institutions should seek practical benefits for consumers and avoid policy uncertainty [20].

### **5.3.4 Develop a Flexible Exit Mechanism**

According to the experience of countries and regions in the world, there are three kinds of reasons for the termination of regulatory sandbox: automatic exit, passive exit and active exit. First of all, the expiration of the test shall be deemed as an automatic exit; secondly, under certain conditions, the sandbox regulatory authority has the right to order the test subject to exit under certain conditions. For example, if there is compliance risk or financial risk in the services and products of sandbox test; the test subject violates relevant regulations or damages the interests of consumers. Finally, we can follow Singapore's "Fintech regulatory sandbox guidelines", Sandbox test subjects can withdraw from sandbox test without any reason, but they protect the interests of consumers.

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