

Unofficial Translation

This translation is for the convenience of those unfamiliar with the Thai language.

Please refer to the Thai text for the official version.

The Bank of Thailand's Regulatory Sandbox Guidelines

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The Bank of Thailand's Regulatory Sandbox Guidelines

1. Rationale

1.1 Background

Technological innovation plays a significant role in the continuous development of Thailand's financial sector. It is applied to support financial services and further developed to create financial innovation, which benefits both users and financial service providers. Financial service users can access a variety of financial services that meet their needs through convenient, fast, and secure service channels. Financial service providers can improve their business processes to be more efficient, which helps to increase the efficiency of service delivery, reduce operating costs, create a competitive advantage, and set appropriate and fair service fees for users. However, the application of technology to support financial services or further development to create financial innovation may create new risks that could affect the stability of the payment system and the overall financial system of the country. Therefore, risk assessment and monitoring, as well as appropriate policy and regulatory guidelines, must be in place.

In the past, the Bank of Thailand (BOT) has set guidelines for testing and further developing financial innovation by issuing Bank of Thailand Regulatory Sandbox Guidelines dated March 15, 2019, and October 1, 2019, to provide opportunities for financial service providers to present and test the application of technology to support financial services or further development to create financial innovation under limited scope of business and conditions in 2 frameworks, namely.

(1) Testing under the supervision of the BOT's Regulatory Sandbox, which is a test of the application of technology to support financial services or further development to create financial innovation within the scope of financial services authorized under the supervision of the BOT that can be developed into infrastructure or a central standard for the Thai financial sector, or there may be laws or regulations that require testing in the BOT's Regulatory Sandbox.

(2) Testing under the supervision of the financial service provider itself (Own Sandbox), which is a test of the application of technology to support financial services or further development to create financial innovation within the

scope of financial services under the supervision of the BOT, which is not eligible to test in the Regulatory Sandbox. Testing in Own Sandbox will use the principles of the Regulatory Sandbox as a testing framework, along with risk management and customer protection measures according to relevant laws and guidelines.

However, the current context of the financial sector is changing rapidly due to technological advances following structural changes in the economy and society. The trends and directions of technological development have led to the creation of new products and services that may become financial innovations, which are not yet within the scope of financial business under the supervision of the BOT and the BOT has not yet allowed financial service providers under its supervision to operate. In addition, these financial innovations do not meet the criteria for testing through the Regulatory Sandbox or Own Sandbox mechanisms.

For this reason, the BOT has established additional Enhanced Regulatory Sandbox to accommodate the testing of new financial products or services that may further develop into beneficial financial innovation. The Enhanced Regulatory Sandbox will be a mechanism for testing new products or services that are in line with the trends and directions of technological development (Thematic Approach) and can effectively assess the benefits and risks of new products or services and lead to the establishment of appropriate policies or regulatory guidelines.

1.2 Expected Outcomes

The financial sector has Regulatory Sandbox Guidelines as a mechanism to help increase flexibility in assessment, monitoring, supervision, and promotion of appropriate financial innovation development. The financial sector can benefit from technology to support financial services and further develop financial innovation in a sustainable manner, taking care of risks based on social responsibility (Responsible Innovation) and enhancing the potential and productivity of the economy. Without affecting the stability of the payment system and financial stability.

Testing under the Regulatory Sandbox Guidelines is a platform for financial service providers to present and test the application of technology to

support financial services or further development to create financial innovation within a limited scope. The BOT expects the following outcomes:

(1) Promote the application of technology to enhance efficiency of financial services and to provide more options for users.

(2) Support the development of financial innovation through testing in a real-use environment to reduce the time to market and increase the chances of widespread adoption of such financial innovations.

(3) Limit the risks to users and the financial system that may arise from the application of technology to support financial services or financial innovation, considering the benefits that users and the financial system will receive.

(4) Promote learning and exchange of experiences between the BOT, participants in the sandbox, and other relevant regulatory bodies to consider implementing appropriate policies or regulatory guidelines that are consistent with risk and do not hinder the development of financial innovation.

2. Repealed Guidelines

2.1 The Bank of Thailand's Regulatory Sandbox Guidelines dated March 15, 2019 (B.E.2562)

2.2 The Bank of Thailand's Regulatory Sandbox Guidelines dated October 1, 2019 (B.E.2562)

3. Scope of Application

This Guidelines shall apply to:

3.1 Financial institutions, companies within the financial business groups, specialized financial institutions according to the Financial Institution Business Act B.E.2551 and the amendments thereof

3.2 Non-financial institution businesses under the supervision of the BOT

3.3 Other businesses seeking to offer financial services using financial innovation

4. Contents

4.1 Definitions

“Regulatory Sandbox” means testing the application of technology to support financial services or financial innovation, which is testing under the supervision of the BOT and within limited scope and business conditions.

"Own Sandbox" means testing the application of technology to support financial services or financial innovation, which is testing under the supervision of the financial service provider itself and within limited scope and business conditions. Operating under the framework of risk management and customer protection according to relevant guidelines for the respective financial innovation or service.

"Enhanced Regulatory Sandbox" means testing of new products or services that have the potential to evolve into financial innovations, which the BOT has not yet allowed financial service providers to operate under its supervision. This testing will be conducted under the BOT's supervision within a thematic testing framework and under limited scope and business conditions.

"Financial innovation" means a product, service, system, tool, or business process in finance, scope, or form of financial business that arises from the application and the development of technological innovation.

4.2 Principles of Regulatory Sandbox Guidelines

The BOT has established the guidelines as a mechanism to help promote the application of technological innovation to support financial services and financial innovation, with 3 key principles, as follows:

(1) Promote efficiency in financial services and financial innovation that benefits the economy and financial sector.

(2) Oversee and manage the risks of financial innovation comprehensively, and supervise financial innovation as necessary and appropriate, without affecting the stability of the payment systems and the overall financial system stability.

(3) Have adequate and appropriate consumer protection measures to foster the sustainable development of financial innovation.

In this regard, the BOT may consider flexible supervision in testing of each format under the Regulatory Sandbox Guidelines as appropriate on a case-by-case basis. However, the applicants must still comply with other relevant laws or regulations, especially important regulations, as follows:

- (1) Good Corporate Governance of directors, executives, or persons with management authority
- (2) Maintaining the security of information technology systems and data, covering the following issues: (2.1) Security of systems and data (Confidentiality) (2.2) Accuracy and reliability of systems and data (Integrity) and (2.3) Continuous availability (Availability) and (2.4) Cybersecurity.

- (3) Confidentiality and protection of user personal data

- (4) Anti-Money laundering and counter-terrorism financing

In addition, if the testing activities involve any actions that are subject to legal requirements for notification, registration, or licensing prior to conduct, the participants must also comply with all such legal requirements.

4.3 Regulatory Sandbox

4.3.1 Eligible innovations for testing in the Regulatory Sandbox

Testing the application of technology to support financial services or to develop innovations in finance in the Regulatory Sandbox has the following requirements:

- (1) The testing must fall within the scope of financial businesses regulated by the BOT or be a business or activities that the BOT has permitted regulated entities to conduct.
- (2) Proposed products or services can be developed into infrastructure or common standards for the Thai financial sector, such as QR Code Payment, or as required by related laws or regulatory guidelines to test in the Regulatory Sandbox, such as P2P Lending or holding Digital Assets to develop innovation. Additionally, in cases where the BOT deems it necessary to conduct tests in the Regulatory Sandbox, it allows BOT to closely monitor and assess the risks from the application of technological innovations in financial services.

4.3.2 Procedures for entering the Regulatory Sandbox

To participate in testing, the following procedures must be followed:

- (1) Assess readiness to apply for testing in the sandbox using the Self-Assessment Form, as per Attachment 1
- (2) Consult with the BOT to propose the application that have been studied or researched to show the feasibility of the technology to be tested, including the risks that may arise from such testing, using the assessment or study results from credible organizations. The applicant shall present a test plan, process, steps, and the environment of the information technology system to be tested. This is to limit risks that may impact users, such as the number or group of service users and the appropriate duration for testing in the Regulatory Sandbox, which should not exceed one year. Additionally, the plan should include provisions for exiting the Regulatory Sandbox and the operational plan during the transition period.
- (3) Submit an application to participate in testing in the Regulatory Sandbox, along with the Self-Assessment Form, to the BOT for consideration.

In this regard, the BOT may have additional suggestions for the test plan to ensure smooth operation according to the plan and to reduce overall risks that may affect individuals.

Please be informed that the BOT will notify the result of the consideration to enter the Regulatory Sandbox within 30 days from the date the BOT receives the complete application and related documents as specified.

4.3.3 Procedures during testing in the Regulatory Sandbox

During testing in the Regulatory Sandbox, the following operations must be performed:

- (1) Participants must have measures in place to safeguard and protect users, ensuring that they continue to receive fair treatment. These measures should adhere to the principles outlined in the BOT's Market Conduct guidelines.
- (2) Participants in the testing must have processes for supervision and control of operations in accordance with the specified testing

framework. Adequate risk management systems should be in place, along with consumer protection policies. This includes criteria related to IT risk management, cyber risk, as well as other relevant aspects such as the guidelines of the use of biometric technology and blockchain, including procedures for maintaining confidentiality and protecting personal data of service users, along with other related criteria."

(3) Participants must disclose accurate and complete information that aligns with the characteristics and complexity of the technology application to support service provision. Additionally, users should be informed that the service is being tested within the Regulatory Sandbox, along with clear explanations of limitations and conditions related to the service. This includes addressing potential risks during the testing phase.

(4) Participants in the testing must comply with relevant laws and regulations, such as electronic transaction law, anti-money laundering, and combating the financing of terrorism. This includes adhering to financial support regulations for criminal activities and the proliferation of high-destructive potential weapons.

(5) Participants must have a process for monitoring the progress of the testing and the test results, including key success indicators, risks, errors encountered during testing, and complaints received from users. This also includes measures to mitigate risks, address the aforementioned errors, and reporting to the BOT in the agreed format and timeframe.

(6) If a participant intends to modify the scope of the test, which has been jointly agreed upon by the participant and the BoT. The participant must submit an adjusted test plan to the BoT for review at least 15 days prior to commencing the revised testing activities. The plan should include reasons for the proposed changes and an explanation of their necessity. Additionally, any other potential consequences resulting from altering the test scope should be anticipated by the participant.

Additionally, the BOT may terminate participation in the Regulatory Sandbox before the agreed-upon duration. This action could be taken if a participant fails to comply with the aforementioned terms or if the application of

technology to support financial services or financial innovations poses risks to user rights or significant risks to the financial system, as deemed appropriate by the BOT. It's important to note that the BOT's discretionary authority in such situations is final.

4.3.4 Exiting the Regulatory Sandbox

(1) Participants in the testing can exit the Regulatory Sandbox under the following circumstances:

(1.1) In the event of a successful test, participants are ready to apply the tested technology to support financial services or utilize broadly tested financial innovations. Participants can act according to the following conditions:

(1.1.1) The test results align with the predefined objectives and the key success indicators, as agreed upon by the participants and the BOT and;

(1.1.2) Participants in the sandbox are able to comply to the regulations and supervision by the BOT or any other applicable laws.

(1.2) In cases where the test is unsuccessful, participants must discontinue the application of the technology for supporting financial services or the development of financial innovations, as outlined below:

(1.2.1) The participant notifies their intention to terminate the testing in the Regulatory Sandbox.

(1.2.2) Complaints or issues have been identified with the product, service, operational process, or information technology system, and they cannot be rectified.

(1.2.3) The test results do not meet the specified objectives or success criteria agreed upon by the participant and the BOT.

(1.2.4) The participant does not comply with the mutually agreed conditions during the testing period in collaboration with the BOT.

(2) When a participant intends to exit the Regulatory Sandbox, they should follow these steps:

(2.1) In the event that a participant intend to exit the Regulatory Sandbox after successful testing according to section 4.3.4 (1.1), the participant must notify or seek permission in accordance with the legal framework and applicable criteria.

(2.2) In the event that a participant need to exit the Regulatory Sandbox without achieving success according to section 4.3.4 (1.2), the participant must take the following actions:

(2.2.1) Terminate the offering or provision of financial services to new users, and terminate any additional services provided to existing users.

(2.2.2) Notify users before discontinuing the service and comply with the exit plan from the Regulatory Sandbox and the transition plan as per the Self-Assessment Form submitted to the BOT.

(2.2.3) Report the results of actions taken according to section 4.3.4 (2.2.1) - section 4.3.4 (2.2.2) to the BOT within 15 days from the date of withdrawal from testing. This report should include details such as the remaining transaction volume and any compensation provided to users for damages (if applicable).

4.4 Own Sandbox

4.4.1 Eligible innovations for testing in the Own Sandbox

Testing the application of technology to support financial services or financial innovations in the Own Sandbox has the following characteristics:

(1) The testing must fall within the scope of financial businesses regulated by the BOT or be a business or activities that the BOT has permitted regulated entities to conduct.

(2) Testing the application of technology to support financial services or other financial innovations beyond what is specified in section 4.3.1 (2) for testing in the Regulatory Sandbox.

4.4.2 Procedures for entering the Own Sandbox

The participants intending to conduct testing must define and notify the framework of the Own Sandbox policy. This framework outlines the criteria

for evaluating the features of the project to be tested in the Own Sandbox. It covers risk management related to information technology and other risks. Additionally, it should include consumer protections measures during testing, monitoring of the testing process, and exit and transitional plan to exit the Own Sandbox and provide services more broadly.

The proposed Own Sandbox policy framework must receive approval from the committee of financial service providers or the designated committee before submission to the BOT. This submission should occur at least 15 days in advance of the initial testing in the Own Sandbox. Furthermore, any updates to the Own Sandbox policy framework must be communicated at least 15 days in advance of their effective date. As part of this process, a detailed report on the financial innovation testing project within the Own Sandbox should be submitted to the BOT, as outlined in Attachment 2.

4.4.3 Procedures during testing in the Own Sandbox

(1) The participant must establish an internal process to support testing within the Own Sandbox, aligned with the operational procedures during testing in the Regulatory Sandbox as specified in section 4.3.3 (1) - (5), with due flexibility.

(2) In cases where the participant intends to make significant changes to the scope of testing, participants should notify the BOT at least 15 days in advance.

Additionally, the BOT may require the participant to terminate testing within the Own Sandbox if they fail to comply with the aforementioned requirements or if the application of technology to support financial services or innovative financial development poses substantial risks to users or the financial system, as deemed appropriate by the BOT. It's important to note that the BOT's discretionary authority in such situations is final.

4.4.4 Exiting the Own Sandbox

When exiting the Own Sandbox, participants should apply the principles outlined in Section 4.3.4 of the Regulatory Sandbox as a reference for defining the exit criteria in the Own Sandbox, with due flexibility.

4.5 Enhanced Regulatory Sandbox

4.5.1 Eligible innovations for testing in Enhanced Regulatory Sandbox

Testing of new products or services that have the potential to evolve into financial innovations, which the BOT has not yet allowed financial service providers to operate under its supervision. This testing will be conducted under the BOT's supervision within a thematic testing framework and under limited scope and business conditions, as follows:

(1) No commercial or commercial activity aimed at profit or economic gain from such activity. Fees or charges may be levied only to cover costs (at cost).

(2) A clear testing timeframe must be established. Testing must be conducted within the specified timeframe and cannot continue after testing is complete, unless the BOT extends the testing period as needed on a case-by-case basis.

(3) The scope of the users who will participate in the test must be clearly defined. Testing should not be conducted with the general public.

4.5.2 Procedures for entering Enhanced Regulatory Sandbox

To participate in testing, the following procedures must be followed:

(1) Assess readiness to apply for testing in the sandbox using the project evaluation form specified by the BOT for each project.

(2) Consult with the BOT to propose the application that have been studied or researched to show the feasibility of the technology to be tested, including the risks that may arise from such testing, using the assessment or study results from credible organizations. The applicant shall present a test plan, process, steps, and the environment of the information technology system to be tested. This is to limit risks that may impact users, such as the number or group of service users and the appropriate duration for testing in the Enhanced Regulatory Sandbox, which should not exceed one year. Additionally, the plan should include provisions for exiting the Regulatory Sandbox and the operational plan during the transition period.

(3) Submit an application to participate in testing in the Enhanced Regulatory Sandbox, along with the project evaluation form, to the BOT for consideration.

In this regard, the BOT may have additional suggestions for the test plan to ensure smooth operation according to the plan and to reduce overall risks that may affect individuals.

Please be informed that the BOT will notify the result of the consideration to enter the Enhanced Regulatory Sandbox within 45 days from the date the BOT receives the complete application and related documents as specified.

4.5.3 Procedures during testing in Enhanced Regulatory Sandbox

In the Enhanced Regulatory Sandbox, financial service providers participating in testing must establish an internal process to support financial innovation. This process is comparable to the testing procedures within the Regulatory Sandbox, as outlined in section 4.3.3 (1) - (6)

The BOT will evaluate the results of testing in terms of benefits and risks to consider appropriate policies and regulations going forward.

Additionally, the BOT may terminate participation in the Enhanced Regulatory Sandbox before the agreed-upon period if participants fail to comply with the aforementioned requirements or if the application of technology to support financial services or innovative financial development poses significant risks to users' rights or the financial system. It's important to note that the BOT's discretionary authority in such situations is final.

4.5.4 Exiting the Enhanced Regulatory Sandbox

When exiting the Enhanced Regulatory Sandbox, participants should apply the principles outlined in Section 4.3.4 of the Regulatory Sandbox as a reference for defining the exit criteria in the Enhanced Regulatory Sandbox, with due flexibility.

5. Effective Date

This Regulatory Sandbox Guidelines shall come into force from June 13, 2024.

Self-Assessment Form for the Regulatory Sandbox Financial Innovation Testing

Financial Service Provider Name: [Please insert the name of the financial service provider]

Project Name: [Please insert the project name]

ข้อมูลประกอบการพิจารณา	
1. Project overview	<p>(1) Project overview</p> <p>(2) Benefits i.e., Compare these benefits with the current system/method across various aspects, such as benefits for the public, businesses, and banks.</p>
2. Technology	<p>General Description of the Technology: Provide a concise overview of the technology as follows;</p> <p>(1) General Description of the Technology</p> <p>(2) External Service Providers/Vendors Selected by Financial Service Providers/Test Participants: Explain the reasons behind choosing specific external service providers/vendors. Include relevant justifications for selecting these vendors.</p> <p>(3) IT-related Standards: Discuss relevant IT standards, including any certifications received from international organizations or agencies related to setting global IT standards (if applicable)</p>
3. Business and Operational Flow	A detailed description of the business processes (Business Flow) to be tested. This should include the Customer Journey and Operational flows of the financial service provider/tester.

4. Risk Management Plan	<p>แนวทางการดำเนินการของธนาคาร ในการควบคุมความเสี่ยงที่เกี่ยวข้องกับโครงการ ดังนี้</p> <hr/> <p>(1) Technology risk</p> <ol style="list-style-type: none"> 1) Risk Management and Mitigation Plans i.e., implement robust security measures to protect confidentiality, integrity, and availability of data. 2) Data Security and Privacy: adhere to strict data security and privacy standards, including data protection measures and cybersecurity incident response plans. 3) Third-Party Vendor Oversight: establish clear governance frameworks for managing third-party service providers, especially when utilizing cloud computing technologies (if applicable) <hr/> <p>(2) Operational risk</p> <ol style="list-style-type: none"> 4) Operational Risk Controls i.e., implement comprehensive operational risk controls, including measures to prevent document forgery and ensure transaction integrity. 5) KYC/CDD Compliance: Conduct thorough KYC/CDD (Know Your Customer/Customer Due Diligence) procedures to verify customer identities and mitigate financial crime risks. <hr/> <p>(3) Consumer protection</p> <ol style="list-style-type: none"> 6) User Protection and Legal Compliance: Implement robust user protection measures and ensure strict adherence to all applicable laws and regulations.
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5. Scope of testing	Testing Framework: define the nature and scope of the transactions to be tested.			
	Topic	Description		
	1. Testing Framework	1)Transaction Characteristics		
		2) Target Users		
		4) Transaction volume		
		5) Testing duration		
	2. Key Success Indicator	Example KSIs:		
		KSIs	ระดับ	
		1. Business - Achieve a success rate of X% or more per month		
		2. Technology - Ensure the IT infrastructure passes all security assessments. - Ensure the mobile app passes all security assessments. - Maintain an IT system uptime of over 90% per month.		
3. Consumer protection - Maintain a complaint rate of less than X%.				
6. Consumer Protection	Outline measures implemented to safeguard users during the sandbox testing phase. i.e., Call Center Staff Training and Readiness, User Support Channels.			
7. Exit/ Transition Strategy	(1) In case of successful case..... (2) In case of unsuccessful case.....			

Own Sandbox Financial Innovation Testing Project Report

Financial Service Provider Name: [Please insert the name of the financial service provider]

No.	Financial Service Provider Name	Project name	Project overview	Technology	Third-Party Vendor (if applicable)	Project valuation/ Budget	Testing Framework			Key Success Indicators ¹
							Target Users	Testing duration	Additional Factors on the Tested Innovation i.e., Transaction Volume, value, Maximum Loss	
1										
2										

¹ the key success indicators (KSIs) that should be considered when evaluating the effectiveness of a sandbox testing project i.e., Business Model, Technology Performance, Risk Management.