



FINTECH REGULATORY SANDBOX GUIDELINES

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Monetary Authority of Singapore

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1. INTRODUCTION

- 1.1. Singapore aims to grow a smart financial centre where innovation is pervasive and technology is used widely to enhance value, increase efficiency, manage risks better, create new opportunities and improve the lives of Singaporeans.
- 1.2. The Monetary Authority of Singapore (“MAS”) believes that a key driver to transforming Singapore into a smart financial centre is the provision of a regulatory environment that is conducive for innovative use of technology.
- 1.3. Currently, financial institutions (“FIs”) are already free to launch new financial products, services or processes (the “financial services”) without first seeking MAS’ permission, as long as they have carried out their due diligence and there is no breach of legal and regulatory requirements.
- 1.4. In this regard, FIs have been experimenting with new financial services in a production environment¹ such as by limiting the experimentation to specific type of customers or setting a threshold on transaction values.
- 1.5. However, against the backdrop of a rapidly evolving financial technology (“FinTech”) landscape, emerging financial services that utilise FinTech are becoming more sophisticated and there may be uncertainty over whether the innovation meets regulatory requirements.
- 1.6. Furthermore, the vibrancy of our FinTech ecosystem has been accentuated by a growing number of start-ups. These start-ups are keen to implement innovative financial services utilising FinTech but are looking for an approach to enable them to test the viability of these financial services in a cost effective and timely manner.
- 1.7. In circumstances where it is less clear whether a new financial service complies with legal and regulatory requirements, some FIs or start-ups may err on the side of caution and choose not to implement it. This outcome is undesirable as promising innovations may be stifled and this may result in missed opportunities.

2. THE REGULATORY SANDBOX APPROACH

- 2.1. MAS is encouraging more FinTech experimentation so that promising innovations can be tested in the market and have a chance for wider adoption, in Singapore and abroad.

¹ A production environment is where actual products or services are rendered to customers.

- 2.2. To achieve this objective, FIs or any interested firm (the “applicant”) can apply to enter a regulatory sandbox (the “sandbox”) to experiment with innovative financial services in the production environment but within a well-defined space and duration. The sandbox shall include appropriate safeguards to contain the consequences of failure and maintain the overall safety and soundness of the financial system.
- 2.3. Depending on the financial service to be experimented, the applicant involved and the application made, MAS will determine the specific legal and regulatory requirements which it is prepared to relax for each case. Please refer to **ANNEX A** for examples of the legal and regulatory requirements that MAS may consider relaxing for the duration of the sandbox, as well as those which MAS intends to maintain.
- 2.4. Upon approval, the applicant becomes the entity responsible for deploying and operating the sandbox (the “sandbox entity”), with MAS providing the appropriate regulatory support by relaxing specific legal and regulatory requirements prescribed by MAS, which the sandbox entity will otherwise be subject to, for the duration of the sandbox.
- 2.5. Upon successful experimentation and on exiting the sandbox, the sandbox entity must fully comply with the relevant legal and regulatory requirements.

3. PURPOSE OF THE GUIDELINES

- 3.1. The FinTech regulatory sandbox guidelines (the “guidelines”) set out the objective and principles of the sandbox, and provide guidance to the applicant on the application process and the information to be furnished to MAS.

4. TARGET AUDIENCE

- 4.1. The guidelines will be of particular interest to firms that are looking to apply technology in an innovative way to provide financial services that are or likely to be regulated by MAS. The target audience includes but is not limited to FIs, FinTech firms, and professional services firms partnering with or providing support to such businesses.

5. OBJECTIVE AND PRINCIPLES OF THE SANDBOX

- 5.1. This section outlines the objective and principles of the sandbox, and provides the target audience with the rationale for deploying a sandbox.
- 5.2. MAS aims to transform Singapore into a smart financial centre by encouraging the adoption of innovative and safe technology in the financial sector. To this end, the sandbox can help to encourage more FinTech experimentation within a well-defined space and duration where MAS will provide the requisite regulatory support, so as to:

- a. increase efficiency;
 - b. manage risks better;
 - c. create new opportunities; or
 - d. improve people's lives.
- 5.3. Given that a sandbox operates in the production environment, it must have a well-defined space and duration for the proposed financial service to be launched, within which the consequences of failure can be contained.
- 5.4. The applicant should clearly understand the objective and principles of the sandbox. It must be emphasised that the sandbox is not intended and cannot be used as a means to circumvent legal and regulatory requirements.
- 5.5. In addition, the sandbox may not be suitable under the following circumstances:
- a. The proposed financial service is similar to those that are already being offered in Singapore, unless the applicant can show that either:
 - (i) a different technology is being applied; or
 - (ii) the same technology is being applied differently.
 - b. The applicant has not demonstrated that it has done its due diligence, including testing the proposed financial service in a laboratory environment and knowing the legal and regulatory requirements for deploying the proposed financial service.

6. SANDBOX EVALUATION CRITERIA

- 6.1. This section outlines the main evaluation criteria which will be used by MAS to assess the application submitted by the applicant.
- 6.2. The application should contain the necessary supporting information (**ANNEX B**) to depict how the sandbox evaluation criteria listed below can be fulfilled:
- a. The proposed financial service includes new or emerging technology, or uses existing technology in an innovative way. For example, secondary research should show that few or no comparable offerings are available in the Singapore market;
 - b. The proposed financial service addresses a problem, or brings benefits to consumers or the industry. For example, these could be supported by evidence from relevant consumer or industry research;

- c. The applicant has the intention and ability to deploy the proposed financial service in Singapore on a broader scale after exiting the sandbox. If there are exceptional reasons why the proposed financial service cannot be deployed in Singapore, for example it is not commercially viable to deploy in Singapore, the applicant should be prepared to continue contributing to Singapore in other ways, such as continuing the developmental efforts of the proposed financial service in Singapore;
- d. The test scenarios and expected outcomes of the sandbox experimentation should be clearly defined, and the sandbox entity should report to MAS on the test progress based on an agreed schedule;
- e. The appropriate boundary conditions should be clearly defined, for the sandbox to be meaningfully executed while sufficiently protecting the interests of consumers and maintaining the safety and soundness of the industry;
- f. Significant risks arising from the proposed financial service should be assessed and mitigated. For example, providing evidence of preliminary testing of the proposed financial service as part of the sandbox application, identifying the risks discovered from the preliminary testing and the proposal for mitigating the risks; and
- g. An acceptable exit and transition strategy should be clearly defined in the event that the proposed financial service has to be discontinued, or can proceed to be deployed on a broader scale after exiting the sandbox.

7. EXTENDING OR EXITING THE SANDBOX

- 7.1. At the end of the sandbox period, the legal and regulatory requirements relaxed by MAS will expire, and the sandbox entity must exit from the sandbox.
- 7.2. In the event that the sandbox entity requires an extension of the sandbox period, the sandbox entity should apply to MAS at least **1 month** before the expiration of the sandbox period and provide reasons to support the application for extension. For example, additional time is needed to make changes to the financial service under experimentation after taking into account customer feedback or to rectify flaws, or the sandbox entity requires more time in order to fully comply with the relevant legal and regulatory requirements. MAS will review the application and approval will be granted on a case-by-case basis. MAS' decision on the application for extension is final.
- 7.3. Upon exiting, the sandbox entity can proceed to deploy the financial service under experimentation on a broader scale, provided that:
 - a. both MAS and the sandbox entity are satisfied that the sandbox has achieved its intended test outcomes; and

- b. the sandbox entity can fully comply with the relevant legal and regulatory requirements.

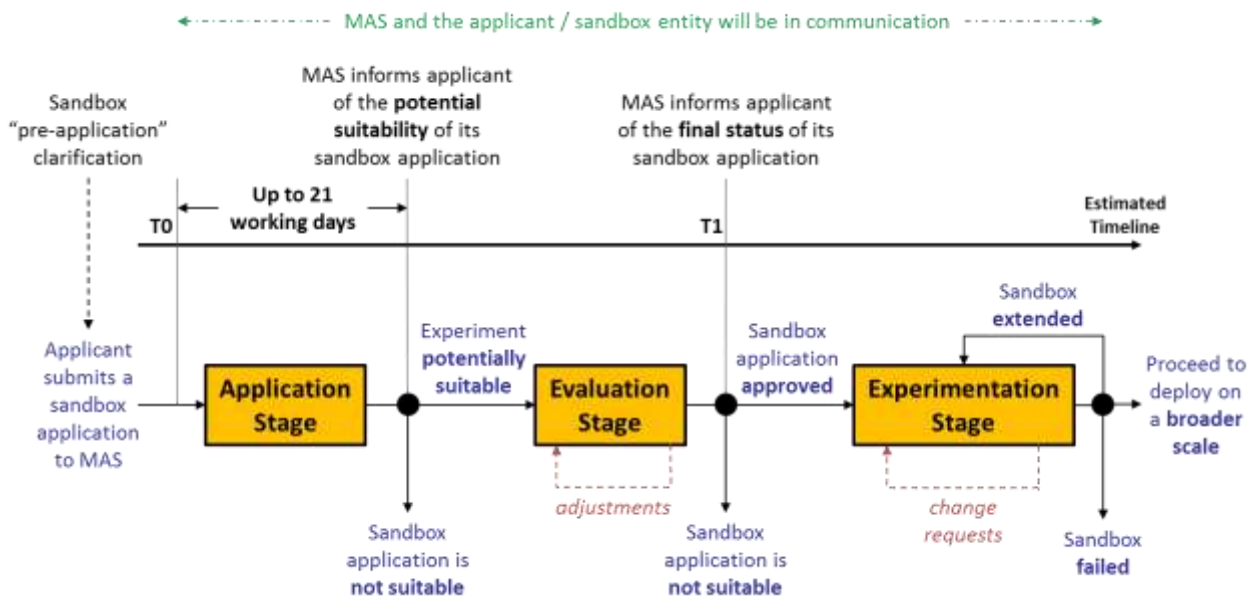
7.4. The sandbox will be discontinued when:

- a. MAS is not satisfied that the sandbox has achieved its intended purpose, based on the latest test scenarios, expected outcomes and schedule mutually agreed with the sandbox entity;
- b. the sandbox entity is unable to fully comply with the relevant legal and regulatory requirements at the end of the sandbox period. If such a situation is anticipated, the sandbox entity is encouraged to engage MAS earlier;
- c. a flaw has been discovered in the financial service under experimentation where the risks posed to customers or the financial system outweigh the benefits of the financial service under experimentation, and the sandbox entity acknowledges that the flaw cannot be resolved within the duration of the sandbox;
- d. MAS terminates the sandbox due to reasons such as the sandbox entity breaching any condition imposed for the duration of the sandbox; or
- e. the sandbox entity has informed MAS of its decision to exit the sandbox at its own discretion.

7.5. The sandbox entity should ensure that any existing obligation to its customers of the financial service under experimentation must be fully fulfilled or addressed before exiting the sandbox or discontinuing the sandbox.

8. APPLICATION AND APPROVAL PROCESS

- 8.1. The applicant should ensure that the objective, principles and criteria specified under **Section 5** and **Section 6** are satisfied before submitting the application and **ANNEX B** to the MAS Review Officer if the applicant is an MAS regulated FI **or** to FinTech_Sandbox@mas.gov.sg.
- 8.2. The following diagram depicts the application and approval process. MAS will communicate with the applicant / sandbox entity in the course of evaluating the sandbox application, and continue to do so during experimentation:



- a. Prior to submitting an application, the applicant can and should clarify any question regarding the sandbox by contacting MAS at FinTech_Sandbox@mas.gov.sg.
- b. At the **"Application Stage"**, MAS shall review the application and endeavour to inform the applicant of its potential suitability for a sandbox within **21 working days** after MAS receives a complete set of information necessary for the assessment (T0). The preliminary indication serves to help the applicant with its business and resource planning.
- c. At the **"Evaluation Stage"**, the time required to fully assess the application (T1) is dependent on its completeness and complexity, and the specific legal and regulatory requirements involved. Due to the exploratory nature of the sandbox approach, the applicant is allowed to make adjustments to the application for resubmission (for example, refining the boundary conditions) after discussing with MAS. The applicant will be informed in writing whether to proceed with the sandbox.
- d. The applicant will be informed if the application is rejected. The reasons for rejection could include failure to meet the objective and principles of the sandbox or any of the evaluation criteria. The applicant may re-apply for the sandbox when it is ready to meet the objective, principles and evaluation criteria of the sandbox.
- e. Upon approval of the application, the sandbox is launched into the **"Experimentation Stage"**, and **Section 7** shall apply. The sandbox entity shall notify its customers that the financial service is operating in a sandbox and disclose the key risks associated with the financial service. The sandbox entity is also required to obtain the customers' acknowledgement that they have read and understood these risks.

- f. In the event that the sandbox entity intends to make material changes to the financial service under experimentation during the “**Experimentation Stage**”, the sandbox entity should apply to MAS at least **1 month** in advance and provide details of the changes with reasons (the “change requests”). The sandbox entity can continue experimenting with the existing solution while MAS reviews the change requests and inform the sandbox entity of its decision.
 - g. For the purpose of transparency and provision of information to customers, relevant information of all approved sandbox applications such as the name of the applicant, and the start and expiry dates of the sandbox experimentation, will be published on MAS’ website.
- 8.3. To illustrate the application and approval process, **ANNEX C** provides a case study on how an application that meets MAS’ expectations is processed, which will allow for a sandbox to be implemented.

ANNEX A**EXAMPLES OF FLEXIBILITY AROUND REGULATORY REQUIREMENTS AND EXPECTATIONS FOR THE SANDBOX**

The following table provides examples of the legal and regulatory requirements that MAS is prepared to consider relaxing for the duration of the sandbox, as well as those which MAS intends to maintain. It must be emphasised that the examples outlined in the table are not exhaustive. Depending on the proposed financial service, the applicant involved and the application made, MAS will determine the specific legal and regulatory requirements which it is prepared to relax for each case.

Examples of "To Maintain" requirements
Confidentiality of customer information
Fit and proper criteria particularly on honesty and integrity
Handling of customer's moneys and assets by intermediaries
Prevention of money laundering and countering the financing of terrorism

Examples of "Possible to Relax" requirements
Asset maintenance requirement
Board composition
Cash balances
Credit rating
Financial soundness
Fund solvency and capital adequacy
Licence fees
Management experience
MAS Guidelines, such as technology risk management guidelines and outsourcing guidelines
Minimum liquid assets

Minimum paid-up capital
Relative size
Reputation
Track record

ANNEX B**APPLICATION TEMPLATE FOR THE FINTECH REGULATORY SANDBOX****1. Applicant's Information**

Organisation	
Address	
Telephone	
Country of Incorporation	

Name of Authorised Representative	
Designation	
Email	
Telephone	
Signature	
Date	

2. Overview

S/N	Description	Response
1	Provide a brief description of the organisation and its core businesses.	
2	Provide a brief description of the proposed financial service to be experimented in the sandbox.	
3	Does the applicant currently have the relevant licence to deploy the proposed financial service in the production environment? Please provide the details.	
4	Does the applicant require MAS to relax any specific legal and regulatory requirements prescribed by MAS, for the duration of the sandbox? Please provide the details.	

3. Details of the proposal to support the sandbox evaluation criteria

Criteria	Requirements	Supporting Information or Attachments
Para 6.2a and 6.2b	i. The technology and innovative ways in which the technology will be applied, including a comparison of the key features against similar or competing technologies, or manner in which competing financial services are operating.	
	ii. Benefits of the proposed financial service, such as improvements in security, customer experience, cost efficiency, operational efficiency, or expansion into new market segments. Provide quantifiable estimations where applicable.	
Para 6.2c	i. Assessment of the suitability and readiness of the proposed financial service for the Singapore market, including a brief comparison against similar markets globally.	
	ii. Brief overview of the business strategy and plan, including the roadmap to continue development in Singapore or to deploy the proposed financial service in Singapore on a broader scale. The business plan should also address the gaps (if any) in meeting the relevant legal and regulatory requirements after exiting the sandbox.	

Criteria	Requirements	Supporting Information or Attachments
	iii. Financial standing of the applicant, including any funding raised from investors.	
	iv. Relevant technical and business domain knowledge and experience of the applicant.	
Para 6.2d and 6.2e	i. Test scenarios aimed at removing the uncertainty which could be arising from regulatory, technology or business model, and could not be reasonably or effectively simulated in a test environment.	
	ii. Appropriate targets which allow MAS and the applicant to assess whether the test outcomes have been achieved.	
	iii. Boundary conditions for the sandbox (with justifications), such as: <ul style="list-style-type: none"> • Start and end date of the sandbox • Target customer type; • Limit on the number of customers involved; • Other quantifiable limits such as transaction thresholds or cash holding limits. 	
	iv. Processes and controls to ensure that the boundary conditions are not breached.	

Criteria	Requirements	Supporting Information or Attachments
Para 6.2f and 6.2g	i. Quantification of the maximum loss and impact that the proposal could potentially create, including any potential knock-on effects.	
	ii. Channels for handling customer queries, feedback or complaints.	
	iii. Monitoring plan to ensure the prompt notification of any breach, for example breach of the sandbox test scenarios, boundary conditions or safeguards, to MAS.	
	iv. Risk mitigation plan to minimise the impact of failure on customers and the broader financial ecosystem.	
	v. Exit and transition plan for customers, in the event that the proposed financial service has to be discontinued, or can proceed to be deployed on a broader scale after exiting the sandbox.	
	vi. Communications plan to inform customers, including: <ul style="list-style-type: none"> • the duration, boundary conditions and associated risk disclosure for participating in the sandbox; • advance notification of the termination or extension of the sandbox, or when the proposed financial service can proceed to be deployed on a broader scale. 	

ANNEX C**AN EXAMPLE OF A SANDBOX APPLICATION****Scenario**

- A firm has developed an innovative financial service, using a combination of existing and new technology, for an activity regulated or likely to be regulated by MAS.
- Based on its research, the proposed financial service is able to address an existing gap in the financial sector, and the firm intends to deploy the proposed financial service in Singapore.
- The firm has performed rigorous due diligence on the proposed financial service in its laboratory environment.
- However, the firm is uncertain if significant risks have been effectively addressed given that there was no precedent to guide the testing.
- In addition, the firm is still at the early growth stage, and is unable to fully comply with existing legal and regulatory requirements. It is looking for certain exemptions to be granted by MAS.

Existing Approach

- The firm submits a licence application to MAS and indicates the specific exemptions required.
- Given the novelty of the proposed financial service and that the firm does not have a track record comparable with established FIs, MAS could take a longer time to understand the business model and technology, and clarify the potential risks.
- With the existing approach, the scenario could potentially develop into the following outcomes, whereby promising innovations were being stifled and the doors to potential opportunities were being closed:
 - The firm could face uncertainty during the application process;
 - The firm may drop the idea and stick to business-as-usual; or
 - The firm may consider deploying the proposed financial service outside of Singapore if the regulatory environment is perceived to be more conducive.

Sandbox Approach

- Given MAS' encouragement of experimentation of FinTech innovations through the adoption of a sandbox, the firm submits an application in accordance with the sandbox guidelines.
- As the firm does not have a contact point with any MAS Review Officer, it submits the application and supporting information to FinTech_Sandbox@mas.gov.sg.

- MAS receives the application and assesses it against the sandbox evaluation criteria, including the specific legal and regulatory requirements to be relaxed for the duration of the sandbox.
- To facilitate the firm with its business and resource planning, MAS will inform the applicant whether the application is potentially suitable for a sandbox within 21 working days after receiving the information necessary for the evaluation.
- MAS continues with the evaluation and clarification with the firm. The firm will be informed in writing whether to proceed with the sandbox, as the sandbox entity.

Evaluation Criteria	Assessment (illustrative and non-exhaustive)
Does the proposed financial service include new or emerging technology, or use existing technology in an innovative way?	<p>The proposed financial service is not available in Singapore. It utilises technology to improve customer experience and streamline operations.</p> <p>The applicant applies for certain legal and regulatory requirements to be relaxed for the duration of the sandbox, as it is unable to fully meet the relevant legal and regulatory requirements now.</p>
Does the proposed financial service address an issue or bring benefits to consumers or the industry?	
Does the applicant have the intention and ability to deploy the proposed financial service in Singapore on a broader scale after exiting the sandbox?	<p>The applicant has recently secured \$1m funding. It has doubled its headcount over last year, and has provided a business plan and roadmap to deploy the proposed financial service in Singapore on a broader scale.</p>
Are the test scenarios and expected outcomes clear?	<p>The sandbox will be limited to 50 customers and run for a period of 6 months to measure improvements in customer experience and to validate the risk exposure and mitigation measures.</p>
Are the boundary conditions appropriate?	
Are significant risks assessed and mitigated?	<p>The proposed financial service has been tested under various risk scenarios in an internal test environment.</p>
Is there a clear exit and transition strategy?	<p>In the event that the proposed financial service has to be discontinued, the sandbox customers will be informed in advance to ensure a smooth exit.</p>

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