CONSULTATION PAPER

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FinTech Regulatory Sandbox Guidelines

Monetary Authority of Singapore

PREFACE

1. A key driver to growing a smart financial centre is the provision of a regulatory environment that is conducive to the innovative and safe use of technology.

2. For many years, financial institutions ("FIs") have been applying technological innovations in their products and services. The Monetary Authority of Singapore (MAS) encourages and welcomes firms to develop and apply new technologies into the financial ecosystem to enhance value for customers, increase efficiency, manage risks better, create new opportunities and improve people's lives.

3. Against the backdrop of a fast evolving financial technology ("FinTech") landscape where FinTech solutions are becoming more common and sophisticated, a responsive and forward-looking regulatory approach will further enhance the ability of promising FinTech innovations to develop and flourish.

4. MAS believes that a regulatory sandbox approach ("Sandbox") can be used to carve out a safe and conducive space to experiment with FinTech solutions, and where the consequences of failure can be contained. The Sandbox cannot remove all risks, as failure is an inherent characteristic of innovation. In this regard, the Sandbox aims to provide an environment where if an experiment fails, its impact on consumers and on financial stability will be limited.

5. The FinTech regulatory sandbox guidelines ("Guidelines") set out the objective and principles of the Sandbox as well as provide guidance on the application process. The guidelines will also articulate possible ways in which MAS can render appropriate regulatory support to firms to encourage more FinTech experimentations. MAS invites interested parties to submit their views and comments on the proposed Guidelines.

Please note that all submissions received will be published and attributed to the respective respondents unless they expressly request MAS not to do so. As such, if respondents would like (i) their whole submission or part of it, or (ii) their identity, or (iii) both, to be kept confidential, please expressly state so in the submission to MAS. In addition, MAS reserves the right not to publish any submission received where MAS considers it not in the public interest to do so, such as where the submission appears to be libellous or offensive.

6. All comments should reach MAS by **8 July 2016**. Electronic submission of views and comments is encouraged. Please email to **sandbox_consult@mas.gov.sg**. Alternatively, you may wish to submit your views and comments by post to:

FinTech and Innovation Group
(Attention: FinTech Regulatory Sandbox Working Group)
Monetary Authority of Singapore
10 Shenton Way, MAS Building
Singapore 079117

7. We would appreciate that you use this suggested format here for your submission to ease our collation efforts.

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1. INTRODUCTION

1.1. Singapore aims to grow a smart financial centre, which leverages on innovative FinTech to transform financial services for the ultimate benefit of users, and that will create quality jobs in finance. It will play an important role in Singapore's efforts to build a smart nation, harnessing technology to open opportunities and improve the lives of Singaporeans.

1.2. The 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 the innovative and safe use of technology.

1.3. Currently, FIs are free to launch new solutions without first seeking MAS' guidance, as long as they are satisfied with their own due diligence and there is no breach of legal and regulatory requirements. In addition, FIs have been experimenting with their technological innovations in production environment[1] such as by limiting the solution to specific type of customers or setting a threshold on transaction values.

1.4. However, in circumstances where it is less clear to FIs whether a new financial product, service or process (the "FinTech solution") complies with legal and regulatory requirements, some FIs may err on the side of caution and choose not to pursue the solution. 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 would like to encourage more FinTech experimentations so that promising innovations can be tested in the market and have a chance for wider adoption, in Singapore and abroad.

2.2. To achieve this objective, FIs or any interested firm (the "Applicant") can adopt a Sandbox to experiment with FinTech solutions in the production environment but within a well-defined space and duration. The Sandbox should include appropriate safeguards to contain the consequences of failure and maintain the overall safety and soundness of the financial system.

2.3. The Sandbox would be deployed and operated by the Applicant, with MAS providing the appropriate regulatory support by relaxing specific legal and regulatory requirements prescribed by MAS, which the Applicant would otherwise be subject to, for the duration

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

of the Sandbox. Depending on the FinTech solution, the Applicant involved and the proposal made to MAS, 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.

Question 1. MAS seeks comments on **Para 2.3** and **ANNEX A**. Apart from relaxing specific legal and regulatory requirements which the Applicant would otherwise be subject to, MAS seeks suggestions on other possible forms of support which can be provided for the duration of the Sandbox to encourage more FinTech experimentations.

3. PURPOSE OF THE GUIDELINES

3.1. 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 leverage on existing or new technology in an innovative way to provide financial products or services, or improve business processes. The target audience includes, but is not limited to, FIs, technology 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 rationales 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 experimentations within a well-defined space and duration where MAS will provide the requisite regulatory support.

5.3. Given that a Sandbox operates in the production environment, as a principle it must have a well-defined space and duration for the FinTech solution 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 the legal and regulatory requirements.

5.5. In addition, the Sandbox may not be suitable under the following circumstances:

a. The FinTech solution is considered to be similar to those that are already being offered in Singapore;

b. The Applicant has not done its due diligence to test and verify the viability of the FinTech solution, such as testing the FinTech solution in a laboratory environment or obtaining external validation of the FinTech solution;

c. The Applicant can reasonably and effectively experiment with the FinTech solution in a laboratory or test environment; or

d. The Applicant has no intention to deploy the FinTech solution in Singapore on a broader scale after exiting from the Sandbox.

Question 2. MAS seeks comments on the proposed circumstances where the Sandbox may not be suitable (**Para 5.5**).

6. SANDBOX EVALUATION CRITERIA

6.1. This section outlines the main evaluation criteria which will be used by MAS to assess the proposal submitted by the Applicant.

6.2. The proposal should contain the necessary supporting information (**ANNEX B**) to depict how the Sandbox evaluation criteria listed below can be fulfilled:

a. The FinTech solution is technologically innovative or applied in an innovative way;

b. The FinTech solution addresses a significant problem or issue, or brings benefits to consumers or the industry;

c. The Applicant has the intention and ability to deploy the FinTech solution in Singapore on a broader scale after exiting from the Sandbox;

d. The test scenarios and outcomes of the Sandbox should be clearly defined, and the Applicant 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. Major foreseeable risks arising from the FinTech solution should be assessed and mitigated; and

g. An acceptable exit and transition strategy should be clearly defined in the event that the FinTech solution has to be discontinued, or can proceed to be deployed on a broader scale after exiting from the Sandbox.

Question 3. MAS seeks comments on the proposed evaluation criteria to assess the proposal's suitability for a Sandbox (**Para 6.2** and **ANNEX B**).

7. EXITING FROM THE SANDBOX

7.1. At the end of the Sandbox period, the legal and regulatory requirements relaxed by MAS will expire, and the Applicant must exit from the Sandbox.

7.2. In the event that the Applicant requires an extension of the Sandbox period, the Applicant should apply to MAS at least **1 month** before the Sandbox expiration date and provide reasons to support the application for extension. For example, one reason for seeking an extension of the Sandbox period could be that additional time is needed to make changes to a FinTech solution after taking into account customer feedback or to rectify non-critical flaws. MAS will review the application and approval will be granted on a case-by-case basis.

7.3. Upon exiting, the Applicant can proceed to deploy the FinTech solution on a broader scale, provided that:

a. both MAS and the Applicant are satisfied that the Sandbox has achieved its intended test outcomes; and

b. the Applicant can fully comply with the relevant legal and regulatory requirements.

Question 4. MAS seeks comments on **Para 7.3**. In the event that the test outcomes have been achieved, but the Applicant is still unable to fully comply with the relevant legal and regulatory requirements, should the Applicant be allowed to proceed to deploy the FinTech solution on a broader scale? If so, how could potential concerns of an unlevel playing field be addressed?

7.4. The FinTech solution will be discontinued when:

a. either MAS or the Applicant is not satisfied that the Sandbox has achieved its intended test outcomes;

b. a critical flaw(s) has been discovered in the FinTech solution or the implementation process, and the Applicant acknowledges that the flaw cannot be reasonably resolved within the duration of the Sandbox;

c. MAS terminates the Sandbox due to reasons such as the Applicant breaching any condition imposed for the duration of the Sandbox; or

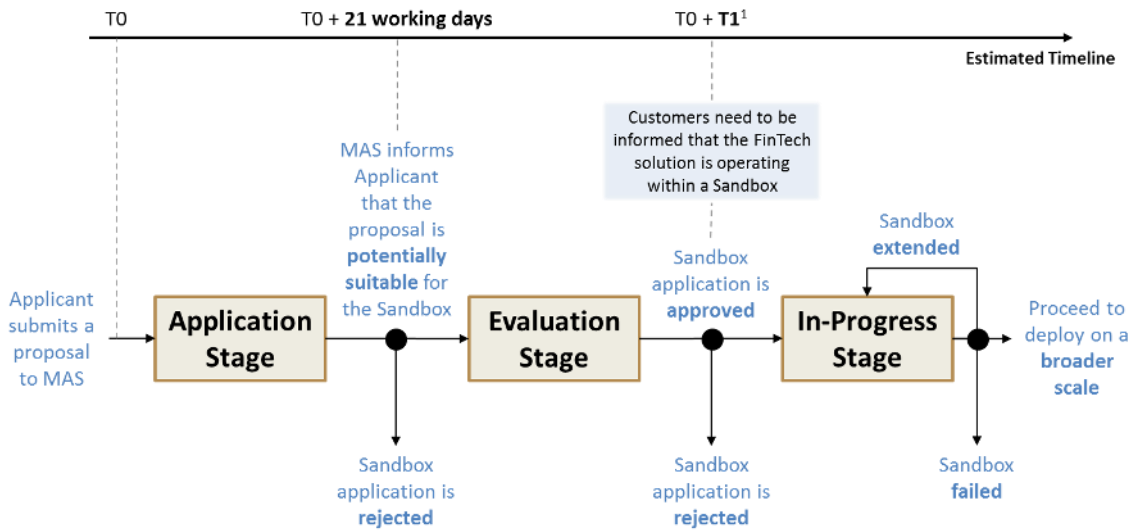
d. the Applicant has informed MAS of its decision to exit from the Sandbox at its own discretion.

Question 5. MAS seeks comments on the proposed circumstances where the FinTech solution will be discontinued (**Para 7.4**).

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 proposal and **ANNEX B** to the MAS Review Officer if the Applicant is an MAS regulated FI **or** xxxxxx@mas.gov.sg.

8.2. The following diagram depicts the application and approval process, and the estimated time frame upon receiving the proposal:



[1] ***T1*** *is the time required to complete the evaluation, which is dependent on various factors such as complexity of the proposal and the specific legal and regulatory requirements involved.*

a. At the "Application Stage", MAS shall review the proposal and endeavour to inform the Applicant of its potential suitability for a Sandbox within **21 working days** after MAS receives a complete and final set of information necessary for the assessment (T0).

b. At the "Evaluation Stage", the time required to assess the proposal (T1) is dependent on its 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 proposal for resubmission (for example, refining the boundary conditions) after discussing with MAS. The Applicant would be informed in writing whether to proceed with the Sandbox.

c. Upon approval of the proposal, the Sandbox is launched into the "In-Progress Stage", and **Section 7** shall apply.

Question 6. MAS seeks comments on the Sandbox application and approval process, as well as the timeline described in **Section 8**.

8.3. To illustrate the application and approval process, **ANNEX C** provides a case study on how a proposal 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 intended to be exhaustive. Depending on the FinTech solution, the Applicant involved and the proposal made to MAS, 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
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 FinTech solution contemplated in the proposal.	
3	Does the Applicant currently have the relevant licence to deploy the FinTech solution 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. Details of the technology, including a comparison of the key features against similar or competing technologies.	
	ii. Details of the innovative ways the technology is utilised in the FinTech solution, including a comparison with existing or alternative products, services or processes of similar nature.	
	iii. Benefits of the FinTech solution, such as improvements in security, customer experience, cost efficiency, operational efficiency, or new market segment. Provide quantifiable estimations where applicable.	
Para 6.2c	i. Assessment on the suitability and readiness of the FinTech solution for the Singapore market, including comparisons against similar markets globally.	
	ii. Details of the business strategy and plan, including the roadmap to deploy the FinTech solution in Singapore on a broader scale.	
	iii. Financial standing of the Applicant, including any capital raised.	

Criteria	Requirements	Supporting Information or Attachments
	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, 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, such as: • Start and end date of the Sandbox, and the justification for the duration; • 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.	
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.	

Criteria	Requirements	Supporting Information or Attachments
	ii. Channels for handling customer queries, feedback or complaints.	
	iii. Monitoring plan to ensure the prompt notification of any breach to MAS, for example breach of the Sandbox test scenarios, boundary conditions or safeguards.	
	iv. Risk mitigation plan to minimise the impact of failure on customers and broader financial ecosystem.	
	v. Exit and transition plan for customers, in the event that the FinTech solution has to be discontinued, or can proceed to be deployed on a broader scale after exiting from the Sandbox.	
	vi. Communications plan to inform customers, including: • 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 FinTech solution can proceed to be deployed on a broader scale.	

ANNEX C

AN EXAMPLE OF A SANDBOX APPLICATION

Scenario

- A firm has developed an innovative FinTech solution, using a combination of existing and new technology, for an activity regulated by MAS.
- Based on its research, the solution is able to address an existing gap in the financial sector, and the firm intends to deploy the solution in Singapore.
- The firm has performed rigorous due diligence on the solution in its laboratory environment.
- However, the firm is uncertain if all major foreseeable risk scenarios 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 solution and that the firm does not have a track record comparable with established FIs, MAS is likely to take a longer time to understand and clarify the potential risks.
- Meanwhile, the firm can only wait, and the uncertainty remains.
- 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:
    - A dead-lock or prolonged processing with no certainty ahead;
    - The firm may drop the idea and stick to business-as-usual; or
    - The firm may consider deploying the solution outside of Singapore where the regulatory environment is perceived to be more conducive.

Sandbox Approach

- The firm learns that MAS encourages FinTech innovations through the adoption of a Sandbox, and prepares the proposal in accordance to the Guidelines.
- As the firm does not have a contact point with any MAS Review Officer, it submits the proposal and supporting information to xxxxxx@mas.gov.sg.

- MAS receives the proposal 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 on whether the proposal is potentially suitable for a Sandbox within 21 working days.
- MAS continues with the evaluation and clarification with the firm. Assuming that MAS is satisfied with the proposal, the firm would be informed in writing to proceed with the Sandbox.

<table>
<tr><th>Evaluation Criteria</th><th>Assessment
(illustrative and non-exhaustive)</th></tr>
<tr><td>Is the FinTech solution technologically innovative?</td><td rowspan="2">The solution is not yet commonly used in the financial sector, though it has received increasing adoption in other verticals. The solution is expected to improve customer experience and streamline operations without heavy investment.

The Applicant applies for certain legal and regulatory requirements to be relaxed for the duration of the Sandbox, as it is still growing and is unable to fully meet the relevant legal and regulatory requirements now.</td></tr>
<tr><td>Does the FinTech solution address an issue or bring benefits to consumers or the industry?</td></tr>
<tr><td>Does the Applicant have the intention and ability to deploy the solution in Singapore on a broader scale after exiting from the Sandbox?</td><td>The Applicant has recently secured $5m funding, including investment by a renowned venture capital firm. It has doubled its headcounts over the last 2 years, and has provided a business plan and roadmap to deploy the solution in Singapore on a broader scale.</td></tr>
<tr><td>Are the test scenarios and outcomes clear?</td><td rowspan="2">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.</td></tr>
<tr><td>Are the boundary conditions appropriate?</td></tr>
<tr><td>Are major foreseeable risks assessed and mitigated?</td><td rowspan="2">The solution has been tested under various risk scenarios in the laboratory environment.

In the event that the solution has to be discontinued, the Sandbox customers will be migrated over to the existing platforms and processes.</td></tr>
<tr><td>Is there a clear exit and transition strategy?</td></tr>
</table>

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