RESPONSE TO FEEDBACK RECEIVED

November 2016

Response to feedback received – FinTech Regulatory Sandbox Guidelines
TABLE OF CONTENTS

1 Preface ......................................................................................................................... 3
2 Regulatory Sandbox Approach ..................................................................................... 4
3 Circumstances where the Sandbox may not be suitable ........................................... 5
4 Evaluation Criteria ......................................................................................................... 6
5 Extending or Exiting the Sandbox .................................................................................. 7
6 Circumstances where the experimentation will be discontinued ............................. 9
7 Timeline, application and approval process................................................................. 10

Annex 1 List of respondents to the consultation paper on FinTech regulatory sandbox guidelines .......................................................... 14
Annex 2 Full submissions from respondents to the consultation paper on FinTech regulatory sandbox guidelines ................................................. 16
1 Preface

1.1 On 6 June 2016, MAS issued a consultation paper on the proposed guidelines (the “guidelines”) for a financial technology (“FinTech”) regulatory sandbox (the “sandbox”) that will enable financial institutions (“FIs”) as well as FinTech players to experiment with innovative financial products, services or processes (the “financial services”) that are or likely to be regulated by MAS.

1.2 The guidelines set out the objective and principles of the sandbox, and provide guidance to interested firms (the “applicant”) on the application process. Upon approval, the applicant becomes the entity responsible for deploying and operating the sandbox (the “sandbox entity”), with MAS providing the appropriate regulatory support.

1.3 The consultation period closed on 8 July 2016, and a total of 48 responses were received. MAS would like to thank all respondents for their contributions. The list of respondents is in Annex 1 and full submissions with the name of respondents can be found in Annex 2.

1.4 MAS has considered carefully the feedback received, and will incorporate them where appropriate. Comments that are of wider interest, together with MAS’ responses are set out in this response document.
2 Regulatory Sandbox Approach

“Possible to relax” requirements and other forms of regulatory support

2.1 Most respondents welcomed the approach that MAS is prepared to consider relaxing certain legal and regulatory requirements. A few respondents requested MAS to clarify how these will be relaxed and whether there will be a clear process in place.

2.2 A number of respondents suggested that the sandbox entity should be exempted from the need for licensing during the sandbox period, while several respondents requested MAS to explicitly include outsourcing guidelines as an example of the “possible to relax” requirement.

2.3 A few respondents suggested that there should be a different set of regulatory support for FinTech start-ups and for established FIs, given that the latter would already have robust processes and measures in place to meet existing licensing requirements.

2.4 A few respondents suggested MAS to consider using tools such as “no action / enforcement letters” that are available in other jurisdictions and which are offered by regulators such as FCA and ASIC. This will provide additional comfort to the sandbox entity experimenting in the sandbox, as they will not be subject to disciplinary actions for an unexpected regulatory breach. Such tools should be limited to special circumstances, for example those with more complex FinTech solutions.

MAS’ Response

2.5 While the guidelines describe the application and approval process, and inform and guide applicants in their preparation for a sandbox application, they are principle-based so as to facilitate experimentation of a wide range of financial services by a broad range of firms. MAS does not rule out the possibility of applying similar tools suggested by the respondents, where appropriate and where legally permissible. A risk-based approach will be adopted in determining the most appropriate and effective form of regulatory support to facilitate experimentation in the sandbox.

2.6 MAS wishes to highlight that the examples in the “To Maintain” and “Possible to Relax” lists are non-exhaustive. Expectations stated in other MAS guidelines such as MAS outsourcing guidelines could be relaxed where appropriate. For better clarity, the MAS outsourcing guidelines has been included in Annex A of the guidelines.

Other possible forms of support

2.7 Respondents provided several suggestions on the various forms of support anticipated from MAS, such as financial support, cross-agency support, mentorship,
training on regulatory framework, access to Application Programming Interfaces (APIs), business partnerships, manpower, co-working space, introductory services and provisioning of a cloud environment for sandbox experimentation.

MAS’ Response

2.8 MAS appreciates the suggestions and acknowledges that there is a wide range of support that can complement the regulatory support provided in a sandbox. Firms can continue to engage MAS to discuss the relevant areas through the MAS FinTech Office and MAS will explore the most appropriate ways in which non-regulatory support can be rendered.

3 Circumstances where the Sandbox may not be suitable

Providing clarity and flexibility

3.1 While a few respondents agreed with the circumstances where a sandbox approach may not be suitable, several respondents emphasised that flexibility should be allowed in assessing whether an application is appropriate to proceed into the sandbox. For example, based on the proposed circumstances, seemingly “similar” financial service that bring incremental benefits to consumers or industry may be disqualified.

3.2 If the extent of the due diligence was overly stringent, respondents highlighted that there is a risk of discouraging firms from experimenting their new financial services in the sandbox.

MAS’ Response

3.3 MAS has amended the first two circumstances in the proposed guidelines to provide further clarity and flexibility:

3.3.1 The proposed financial service would not be considered “similar” if a different technology is applied or the same technology is being applied differently.

3.3.2 The applicant is still required to demonstrate that it has done its due diligence, and examples were added to provide further clarity. In the spirit of encouraging experimentation, MAS has removed the need for the applicant to verify the viability or obtain external validation of the proposed financial service prior to entering a sandbox. However, the applicant should have at least a
prototype solution for the proposed financial service when submitting the sandbox application.

Removing potential duplication or ambiguity

3.4 A number of respondents highlighted that some of the circumstances may either duplicate or conflict with the evaluation criteria for admittance into the sandbox, resulting in duplication or ambiguity.

MAS’ Response

3.5 MAS agrees that “reasonable and effective experimentation in the laboratory environment” should not prevent a firm from using the sandbox as a possible approach to gradually bring an appropriate experimentation from the laboratory to the production environment. Hence, MAS has removed the third circumstance (ie paragraph 5.5c) in the proposed guidelines to remove the perceived ambiguity.

3.6 The fourth circumstance (ie paragraph 5.5d) on “no intention to deploy in Singapore” was also removed to eliminate duplication with the evaluation criterion set out in paragraph 6.2c on “The applicant has the intention and ability to deploy the FinTech solution in Singapore on a broader scale after exiting from the sandbox”.

4 Evaluation Criteria

Adding clarity to the evaluation criteria

4.1 Respondents are largely supportive of the evaluation criteria. However, many respondents requested for more clarity on some of the evaluation criteria so that the applicants can understand them clearly. For example, some respondents sought clarity on how the proposed financial service would be assessed as “technologically innovative or applied in an innovative way”.

MAS’ Response

4.2 MAS agrees that the clarity of the evaluation criteria can be further enhanced, using examples where appropriate. The changes are reflected in the guidelines, for example,

4.2.1 on “technologically innovative or applied in an innovative way”, clarity has been added to place more emphasis on how technology is applied in
delivering the proposed financial service and that secondary research should show that few or no comparable offerings are available in the Singapore market.

4.2.2 on how the proposed financial service “addresses a problem or brings benefits”, the applicant could provide evidence from relevant consumer or industry research.

4.2.3 on “deploy in Singapore on a broader scale”, MAS recognises that there may be circumstances where it may not be commercially viable for the sandbox entity to deploy in Singapore after experimenting in the sandbox. However, it is in MAS’ interest that such experimentations should have benefits to Singapore if they are successful. The evaluation criterion was amended to include “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”.

Streamlining of the application template

4.3 While several respondents concurred that the application template is thoughtful and practical, a few respondents pointed out that the information required such as business strategy, may impose an undue burden especially on start-ups which are still operating at the experimentation stage and may not have the necessary resources. These respondents suggested to streamline the application template.

MAS’ Response

4.4 The application template provides a consistent and transparent means to guide the applicants in their preparation for a sandbox application. MAS has made some changes to simplify a number of requirements in the application template.

5 Extending or Exiting the Sandbox

5.1 Most respondents agreed that both MAS and the sandbox entity should be satisfied that the sandbox has achieved its intended test outcomes at the end of the sandbox period before proceeding to deploy the financial service under experimentation on a broader scale in Singapore.

5.2 However, there were mixed views as to whether the sandbox entity should be allowed to proceed if it was unable to fully comply with the relevant legal and regulatory requirements at the end of the sandbox period.
5.3 Several respondents supported not allowing the sandbox entity to proceed as the experimentation had ended, and the reasons cited include maintaining a level-playing field, and the potential risks to consumers and the financial markets. Other respondents felt that the sandbox entity could be allowed to proceed given the need to encourage FinTech experimentation and innovation, as well as acting as a driver to amend existing regulatory requirements which may be outdated in a rapidly evolving FinTech landscape.

5.4 A number of respondents highlighted that meeting the full compliance upon exit would be extremely difficult for start-ups, as the ability to meet certain requirements such as “track record” and “management experience” are unlikely to change over the sandbox period. Furthermore, the cost of full compliance may be too heavy or unsustainable for these start-ups.

5.5 A number of respondents suggested providing a transition period and allowing the sandbox entity to gradually proceed with the broader deployment until the full regulatory requirements can be met. A few respondents suggested allowing the sandbox entity to tie up with a FI that is able to fully comply with the requirements.

MAS’ Response

5.6 Broadly, as a principle, the sandbox will be discontinued if the sandbox entity is unable to fully comply with the relevant legal and regulatory requirements at the end of the sandbox period. The sandbox entity would be aware of its inability to meet certain legal and regulatory requirements when submitting the sandbox application, and has the responsibility to ensure that there is a plan in place to meet these requirements. For example, where the sandbox entity falls short of “management experience” requirement, it should plan to hire a CEO or management staff with the necessary management experience so that it is ready to meet the requirement upon exiting the sandbox.

5.7 The sandbox entity is encouraged to engage MAS early if it anticipates that it cannot comply with the legal and regulatory requirements upon exiting the sandbox and can apply to MAS for an extension of the sandbox period if it helps the sandbox entity to fully comply with the relevant legal and regulatory requirements subsequently. MAS will assess such situations on a case-by-case basis in the interest of encouraging FinTech innovation, protecting consumers and maintaining a level-playing field.
6 Circumstances where the experimentation will be discontinued

6.1 Most of the respondents agree that the proposed circumstances are reasonable and adequate, with several concurring that MAS should retain the power to discontinue the experimentation in the sandbox where necessary.

*Interpretation of “critical flaw”*

6.2 A number of respondents sought clarity on the interpretation of “critical flaw”.

**MAS’ Response**

6.3 MAS has updated the guidelines to clarify that the sandbox will be discontinued when the risk posed to customers or the financial system outweighs the benefits of the financial service under experimentation.

*Granting extension if the “critical flaws” can be resolved*

6.4 A few respondents highlighted that the sandbox entity should be granted an extension if they are confident that the “critical flaws” can be resolved with the additional time provided, so as to avoid disruption to the customers in the sandbox. It is also more efficient for an experiment to continue while the flaws are being remedied as compared to a discontinue-and-restart approach.

**MAS’ Response**

6.5 While the discontinuation of the experimentation may bring disruption to the customers in the sandbox, MAS is of the view that such circumstances should be assessed on a case-by-case basis given that the flaws may expose customers and the financial system to undue risks.

*Assessment of test outcomes*

6.6 A number of respondents highlighted that it is important to provide clarity and transparency on the method used to assess the satisfaction of test outcomes. A few respondents suggested that there should be a mediation or appeal channel to help resolve situations of disagreement between MAS and the sandbox entity on the assessment.

**MAS’ Response**

6.7 MAS has updated the guidelines to improve clarity. The evaluation criteria in the guidelines includes a need to provide clearly defined test scenarios and expected outcomes of the experimentation in the sandbox. MAS will communicate with the applicant / sandbox entity in the course of evaluating the sandbox application, and
continue to do so during experimentation. The latest set of mutually agreed test scenarios, expected outcomes and schedule will be used as the basis to guide MAS and the sandbox entity in assessing the outcome of the experimentation.

**Graceful exit**

6.8 A few respondents highlighted that it is important to ensure that the sandbox entity’s existing obligations to the sandbox customers must be fully addressed before a sandbox can be discontinued, and this should also apply to the scenario whereby the sandbox entity decides to exit from the sandbox on its own accord.

**MAS’ Response**

6.9 MAS agrees with the feedback and has made changes to the guidelines to reflect that the sandbox entity should ensure that any existing obligations to the sandbox customers should be fully fulfilled or addressed before exiting the sandbox or discontinuing the sandbox.

### 7 Timeline, application and approval process

7.1 A few respondents viewed the approval timeline as being reasonable, while some applauded MAS’ commitment to inform the sandbox applicants on the potential suitability for a sandbox within 21 working days. However, the respondents also raised the following areas of concerns and provided suggestions on the application process.

**“Pre-application stage”**

7.2 A few respondents suggested to include a “pre-application stage” to allow potential sandbox applicants to engage MAS and seek guidance on relevant regulatory requirements and concerns. Such engagements would be particularly useful to start-ups that have a limited understanding of the existing regulatory regime. It would also help firms to determine the suitability and need for a sandbox and thereby speeding up the assessment by MAS subsequently.

**MAS’ Response**

7.3 Currently, firms can already engage MAS for enquiries, clarifications or discussions through the MAS FinTech Office. This channel is available to firms interested in applying for a sandbox and serves the same purpose as a “pre-application stage”.

---

Monetary Authority of Singapore
Overall Timeline

7.4 Several respondents highlighted that the processing time should be shortened. A few respondents suggested that MAS should provide a preliminary indication on the potential suitability within 10 working days.

7.5 Several respondents have also highlighted that the total time taken to approve a sandbox application was open-ended, which may leave innovating firms in an uncertain position for a long period of time. This was viewed unfavourably as FinTech is evolving at a rapid pace and many start-ups may be resource constrained. A number of respondents suggested to shorten the overall timeline and impose a maximum time taken to approve a sandbox application.

MAS’ Response

7.6 MAS recognises that a more definitive timeline will provide certainty to firms applying for a sandbox, especially for start-ups. It is with this understanding that MAS commits to inform the sandbox applicants on the potential suitability for a sandbox within 21 working days of receiving the application, such application to include a complete set of information necessary for the assessment.

7.7 MAS expects that interested firms should address most of the regulatory clarification prior to submitting an application. However, based on the applications received so far, this remains a challenge as most of the applications are incomplete leading to extensive engagements and clarifications by MAS with the applicants.

7.8 It is impractical to commit on a fixed evaluation period (T1) as the time taken to fully evaluate a sandbox application will involve several considerations, including the completeness of the application, complexity of the proposed financial service and the regulatory support required. However, MAS will closely monitor the time taken to evaluate each application so that the objective of the sandbox will not be derailed.

Auto-approval of Sandbox applications

7.9 Three respondents proposed that MAS should grant auto-approval to use the sandbox while the application is being evaluated, on the premise that a pre-determined set of regulatory requirements (such as AML/CFT) or a more stringent set of boundary conditions would be imposed.

MAS’ Response

7.10 It is important that the safety and soundness of the financial system and the interest of customers are protected, while encouraging experimentation of promising
innovations. In this regard, MAS needs to establish a good understanding of the sandbox proposal so that the regulatory support provided can commensurate with the materiality of the risk identified.

**Flexibility of experimentation**

7.11 A few respondents highlighted that the process of innovation is often non-linear and not always clearly defined, hence sandbox entities should be granted the flexibility to alter their experimentation during the “in-progress stage” so as to fully realise the benefits of such experimentation instead of inhibiting the development of the financial service under experimentation.

**MAS’ Response**

7.12 MAS agrees that the process of innovation is dynamic and it may be necessary for sandbox entities to alter their experimentation during the “In-Progress Stage” (this has been renamed as “Experimentation Stage” in the guidelines). The proposed guidelines had explicitly provided an option for the sandbox entity to seek an extension of the sandbox period. Having weighed the need for flexibility on the experimentation and time taken to assess such changes, the guidelines have been updated to allow the sandbox entity to request for material changes in the “Experimentation Stage” at least 1 month in advance, and such change requests will be assessed on a case-by-case basis.

**Confidentiality, transparency and channels for appeal**

7.13 Several respondents stressed that any proprietary information provided to MAS should remain confidential. A few respondents highlighted that the applications should be entirely confidential so as to protect their competitive advantage as first-movers.

7.14 However, a number of respondents urged that MAS should provide clarity on the reasons for accepting or rejecting an application, and that these should be published to provide transparency and guidance to future sandbox applicants. In the event that an application is rejected, the applicant should be provided an opportunity to appeal.

**MAS’ Response**

7.15 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.

7.16 MAS is of the view that while transparency of the decision-making is crucial in building the trust necessary to encourage experimentation, it is equally important to
maintain confidentiality of proprietary information so as to protect the applicants’ competitive advantages. To achieve a balance, the guidelines have been updated to reflect that only approved applications will be published on MAS website but with due consideration that the confidentiality of proprietary information will be maintained.

MONETARY AUTHORITY OF SINGAPORE

16 November 2016
Annex 1

LIST OF RESPONDENTS TO THE CONSULTATION PAPER ON FINTECH REGULATORY SANDBOX GUIDELINES

1. Asia Cloud Computing Association
2. Association of Cryptocurrency Enterprises and Startups Singapore (ACCESS)
3. AXA Life Insurance Singapore Private Limited / AXA Insurance Singapore Pte Ltd
5. Bankers Association for Finance and Trade (BAFT)
6. Certis CISCO Secure Logistics Pte Ltd
7. CFA Society Singapore Advocacy Committee (Daryl Liew, Alan Lok, Tan Lay Hoon, Maurice Teo)
8. CIMB Bank Berhad
9. Citi Consumer Banking (Singapore)
10. Eastspring Investments (Singapore) Limited
11. KPMG Services Pte. Ltd.
12. KYC-CHAIN
13. Linklaters Singapore Pte. Ltd.
14. Lymon Pte Ltd
15. MasterCard Asia/Pacific Pte Ltd
16. Microsoft
17. O2O Technologies Pte Ltd
18. Phillip Securities Pte Ltd
19. Phua Teck Wee
20. RHTLaw TaylorWessing (representing 20 participants of a roundtable hosted on 16 Jun 2016)
21. Ripple
22. SAP Asia Pte Ltd
23. Singtel
24. Standard Chartered Bank, Singapore, who requested for the comments to be kept confidential

25. State Street Bank and Trust Company

26. StreetSine Technology Group

27. The Bank of Tokyo-Mitsubishi UFJ, Ltd., Singapore Branch

28. tryb Partners LLP

29. Vanguard Investments Singapore Pte Ltd, who requested for the comments to be kept confidential

30. Respondent A who requested for confidentiality of identity

31. Respondent B who requested for confidentiality of identity

32. Respondent C who requested for confidentiality of identity

33. Respondent D who requested for confidentiality of identity

34. 15 respondents who requested for full confidentiality of their submissions

Please refer to Annex 2 for the submissions.
# Full Submissions from Respondents to the Consultation Paper on FinTech Regulatory Sandbox Guidelines

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
| 1   | Asia Cloud Computing Association               | **Question 1**<br>• The ACCA suggests that the MAS clarifying clearly if the Sandbox is only for existing FSI licensees, or could be applicable to start-ups and others involved in developing new applications or business models in FinTech.  

**Question 2**<br>• The ACCA notes that condition 5.5a could be misconstrued as uncompetitive rule – just because there is a service already offered in Singapore available should not preclude another technology solution being offered – which could be more efficient and more agile. In addition, demands for certain features change – see taxi service industry apps servicing what was an unknown demand for a more efficient method of ordering taxis, as an example. The market should be left to decide if a solution is viable, and MAS should relax this rule to encourage greater competition, and not immediately shut experimental solutions out of the Sandbox because there is already something similar in the market.  
• The ACCA notes for condition 5.5c, that most applications are likely to be run within a lab or test environment, but it will be useful to test in the Regulatory Sandbox for a variety of reasons, “real world” testing always being a positive point, so this should not preclude FinTech Sandboxing experimenters.  

**Question 3**<br>• The ACCA notes that the Regulatory Sandbox may need to be a little more flexible to allow for agile development of new services. Over the 6-month period the an agile-developed service may change 6-20 times and could even pivot a few times from the original objective. This is the point of experiments, and there could be flexibility built into 6.2d to allow for iterations of experiments and amendments/additions to hypotheses testing. |
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
|     | Association of Cryptocurrency Enterprises and Startups Singapore (ACCESS) | • The ACCA notes that defining specific exit criteria and post-sandbox objectives could be too constraining; we suggest more clarification on this matter to better understand what these criteria would entail.  
  **Question 4**  
  • The ACCA suggests that MAS could consider an extension to be given the Applicant to comply. To prevent such a situation from happening, the ACCA also suggests that MAS make itself available to provide guidance on how Applicants can develop and comply to the legal and regulatory requirements provided, perhaps by assigning Sandbox handlers to specific Applicants, to ensure an MAS point of contact is available to provide guidance and advice during the process of experimentation.  
  • Another suggestion would be to provide the ability to develop Phase 2 and 3 of the Regulatory Sandbox to test scale and market response before subjecting the new service to the full set of regulation.  
  **Question 6**  
  • The ACCA notes that 21 working days (i.e. one month) is a long approval process to be implementing in today’s context. MAS may want to look at reducing this wait time.  
  • The ACCA also notes that this does not include the Evaluation Stage, which is not defined in Section 8. We suggest that MAS may want to clarify these timelines, so as to reduce the ambiguity for Applicants to be held up by these approval processes.  
  • Under “Possible to Relax” requirements in Annex A, majority of the requirements are on the basis that the FinTech startups are able to get bank accounts, and hence able to keep cash balances, capital requirements etc.  
  • Some suggestions from ACCESS include:  
  o Currency base - Based on (1), “currency” can be in other forms as long as there is a monetary value attached to it e.g. cryptocurrencies such as bitcoin, ethers and so on  
  o Change of Value Proposition i.e. “Pivot” – FinTech Startups, by definition, are still startups and during the sandbox, there is a significant chance the startup will pivot. |
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>its customers, services and/or product after learning from the market.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Making use of the $225mil FinTech fund MAS introduced to fund startups that are specifically in the sandbox</td>
</tr>
</tbody>
</table>

**Question 2**

- **5.5.a.** – The word “similar” is ambiguous. According to the author of the book “Blue Ocean”, there are two types of startups. The first kind of startup is innovating on a market segment and product/service that does not exist. The other is innovating on a market segment and product/service that already exists but hopes to improve upon the existing services. Would MAS be able to re-define the word “similar”.

- **5.5.b.** – Is this suggesting that MAS would like to see some validation from the market before entering the sandbox? ACCESS members believe this is the right approach as getting feedback from real customers first, is the true validation of a product rather than a business plan. There have been many cases where startups (be it FinTech or others) have raised funding based on an investment deck or business plan without real traction and once funding has been raised, the startup fails quickly as the business plan was based on invalid market assumptions rather than real market validation. ACCESS would like to be sure if 5.5.b. means market testing (even to a smaller scale than the sandbox) is allowed before making an application to the sandbox

- **5.5.c.** - As mentioned in 2.2 “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.” ACCESS is assuming the phrase “test environment” means a controlled production environment (please confirm or explain)

- **5.5.d.** – “No intention to deploy the FinTech solution in Singapore” would mean that the FinTech Solution has no intention to “bring in revenues into Singapore”? There are cases within ACCESS where the solution is favorable to be launched in Singapore but may not suit Singaporean customers. As a broad example, ASEAN countries will trust a FinTech solution based in Singapore that is targeted ASEAN-wide customers rather than having the solution based in Cambodia (Please explain or elaborate)
Question 3

- 6.2.d. – The whole idea of a FinTech startup is to solve problems on particular use cases and at the same time execute experiments to solve the use case to determine which other new use cases will appear. Having the startup “clearly define” test scenarios might be very subjective. And with new use cases that appear, the startup may need to “pivot”. Pivot in a sense where they may need to “zoom in” or “zoom out” on a particular customer segment and/or product service. According to the Lean Startup Methodology, which is being adopted globally by startups, you can identify four main types of pivots:

<table>
<thead>
<tr>
<th>Zoom In Pivot</th>
<th>Zoom Out Pivot</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Segment</strong></td>
<td><strong>Product / Service Offering</strong></td>
</tr>
<tr>
<td>This means that after acquiring new learnings, the startup believes the customer segment is too wide and may need to focus on a tighter niche customer segment.</td>
<td>This means that after acquiring new learnings, the startup believes it is offering too many offerings and will need to cut down on offerings and focus on the ones that has the most traction.</td>
</tr>
<tr>
<td>This means after acquiring new learnings, the startup believes the customer segment is too narrow and may need to expand the customer segments.</td>
<td>This means that after acquiring new learnings, the startup believes it is offering too little services where customers as asking for more and thus begin to offer wide variety of products/services.</td>
</tr>
</tbody>
</table>

- 6.2.e. – Very similar to 6.2.d. as startups do not operate like large corporations. Startups have the agility to react quickly to changing environments, but as a result boundaries may not be clearly defined.

- 6.2.g. – This section is a multi-prong scenario. We believe writing up a strategy for transition before entering the sandbox may be too premature. This is especially the case for scenario C outlined below.
  - Startups that successfully exit the Sandbox and find product-market fit
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>▪ This means startups have a product that both satisfies the MAS and obtains product-market fit. After they exit the Sandbox, ACCESS would like to see the steps for these startups to reach full compliance as the consultation paper does not discuss what happens AFTER the sandbox. That is, does the startup go back to the “Existing Approach” as mentioned in “An Example of a Sandbox Application” in ANNEX C?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Startups that successfully exit the Sandbox but do not find product-market fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Because the sandbox approach is looking to MAS approval first rather than through market traction, there is a significant possibility where startups fulfill MAS’ criteria but the markets do not need their product or service. For these startups, their transition strategy may be very different to the one that is initially submitted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Startups that ‘fail’ (i.e. do not fulfill all regulatory and other MAS sandbox requirements) to exit the Sandbox but find product-market fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Uber is a very good example here. Uber initially does not fulfill LTA regulations but after gaining traction due to its product-market fit, regulations surrounding Uber and related services start to adapt to the newly created sharing-economy ecosystem. ACCESS suggests that these startups should be allowed to appeal or have some mediation strategy that the MAS (or other similar government regulators/entities) can provide.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Startups that fail to exit the Sandbox and do not find product-market fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ This means the startup has a product that does not satisfy MAS sandbox criteria and there is no traction in the market. For these startups, the probability of affecting the financial system will be minimal</td>
</tr>
</tbody>
</table>

**Question 4**

▪ ACCESS foresees that there maybe problems for Sandbox startups that are currently in breach of current regulations as mentioned in Question 3, part 3(a)? Is there some sort of “Fast-track” for Sandbox startups to get themselves “fully compliant with the relevant legal and regulatory requirements?”
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Question 5</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 7.4.a. If the startup does not fulfill MAS requirements, but has found product-market fit i.e. has data showing customers are using and paying for the product, they should be able to appeal or have a mediation process. The words “is not satisfied” may be a bit too broad.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 6</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Access would like to emphasize that FinTech Startups are not Software Vendors. FinTech Startups are run by entrepreneurs that “keep going and keep changing”. The rejected applicants must have a good idea of possible contingency plans. ACCESS believes asking the startup to terminate their plans for their services would discourage people to innovate and change on an ongoing basis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 8.b. – Please clarify to the startup community as to how long the evaluation process would take. Indeed, this seems very similar to the “Existing Approach” mentioned in ANNEX C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ACCESS suggest there should be a two phase Sandbox approach. In accordance with Minister Balakrishnan’s words that ‘a regulatory sandbox gives you a conducive environment to test and grow your ideas as quickly as possible without being smothered by regulations”, startups should be automatically granted admission to a smaller sandbox experiment with less stringent customer, transaction etc. limitations as long as they fulfill the basics. (i.e. KYC, AML and data privacy conditions). Upon fulfilling the remaining MAS criteria, startups will then enter the main sandbox with the evaluation criteria mentioned above in Question 3. Startups that do not fulfill the criteria for the main sandbox continue to remain in the smaller sandbox where they can continue to test and repeat as much as necessary before re-applying for the main sandbox again at a later stage. With the smaller sandbox, the limitations mentioned above in the production environment continue to apply, hence incentivizing the startup to graduate to the main sandbox as soon as it can fulfill the necessary criteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Any other comments</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Basis of feedback and comments:</td>
</tr>
</tbody>
</table>
|      |            | • Quote by Ravi Menon: “The MAS applies a ‘materiality and proportionality’ test, Mr Menon said. This means regulation
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>will only kick in when the posed risk has become material and the regulation needs to be proportionate to that posed risk.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Quote by Vivian Balakrishnan: “A regulatory sandbox gives you a conducive environment to test and grow your ideas as quickly as possible without being smothered by regulations”.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Definition of a “Startup”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ A startup is a temporary organization used to search for a repeatable and scalable business model. - Steve Blank, Stanford University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ A “startup” is a company that is confused about 1) what its product is, 2) who its customers are, and 3) how to make money.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ As soon as it figures out all 3 things, it ceases to be a startup and then becomes a real business.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>○ Except most times, that doesn’t happen. - Dave McClure, 500 Startups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Definition of a “Lean Startup”: Lean startup is an approach to business development that is based on the principles of lean production, a manufacturing methodology that values a business' ability to change quickly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Definition of a “FinTech Startup”: Definition based on “Startup” and “Lean Startup” above but with a niche on Financial Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Definition of “Pivot”: This means that the startup has acquired new learnings and plan to either “zoom in” or “zoom out” its customer segment and/or product offerings respectively. Pivot does NOT mean that the customer is changing its product drastically. It must be linked to learnings of the current product/service offering.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Definition of “Product-Market Fit”: This means the product/service offering of the startup has found customers that are willing to either (1) spend time on its product and/or (2) continuously use and pay for the startup’s product/services.</td>
</tr>
</tbody>
</table>
### S/N | Respondent | Full Responses from Respondent
--- | --- | ---
| | | • Emphasizing 1.1.2 of the FinTech Regulatory Sandbox Guidelines: 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.

| 3 | AXA Life Insurance Singapore Private Limited / AXA Insurance Singapore Pte Ltd | **Question 1**
| | | • To provide expedited approvals for potential FinTech experimentations
| | | • MAS task force to work together with FIs to assess feasibility of FinTech solution
| | | • It is recommended to include in the list of “Possible to relax” requirements: MAS guidelines on outsourcing

**Question 2**

• If a solution is already considered to be similar to those that are already being offered in Singapore (which have already been approved) should it not be allowed as an alternative without the need for the extensive TRMG to apply?

**Question 3**

• Evaluation criteria should not require the need to have a “business strategy and plan, including the roadmap to deploy the FinTech solution in Singapore on a broader scale” [Annex B – Para 6.2c(ii)]. The idea behind a sandbox is to provide FIs the ability to quickly test the feasibility of innovative solutions where if successful, have the ability to be deployed at scale. Requiring a detailed roadmap would result in the need to spare additional resources to develop plans and strategy for solutions which might not be applicable to market post the sandbox test.

• Definition of “Major foreseeable risks” [Para 6.2f] should to be defined more precisely.

**Question 4**

• The application should be available shorter than a month. Innovative technologies and solutions are being developed at an increasingly faster rate giving rise to the need to have more agile environments to manage the solution.

• MAS should allow deployment of the innovative solution if applicant is still unable to fully comply with relevant legal and regulatory requirements under condition that applicant can
provide a plan and a roadmap detailing how the requirements will be met within the period of 6-12 months. Applicant could provide necessary updates on realization of the plan with quarterly cadence.

**Question 5**

- It is necessary to define what are the acceptable ways to inform the customers (e.g. publication of the information on the website) about deployment of the FinTech solution into SandBox and if only directly impacted customers should be informed or all applicant customers.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
| 4   | Baker & McKenzie, Wong & Leow LLC | **Question 1**
- We assume that for the duration of the Sandbox, the Applicant would not be "licensed" or "regulated". Therefore, could the MAS provide more colour on its expectations in terms of the "handling of customer's moneys and assets by intermediaries" requirement that it plans to retain for accepted Applicants? Would this depend on the regulatory regime the Applicant falls under (e.g. the SFA regime for capital markets intermediaries)?
- Following on from (1), what would be the MAS' expectations for Applicants with truly innovative models where they may not be able to identify whether they fall within one specific licensing regime, e.g. payment systems, stored value facility or remittance? Would the MAS provide an indication of the regulatory regime it may apply and then indicate the regulatory requirements to be applied for the duration of the Sandbox? If so, would the MAS provide this indication within the 21 working days period during which the MAS confirms that the Applicant is potentially suitable for the Sandbox.
- There is uncertainty as to the terms and conditions which would apply to Applicants. There seems to be an element where the MAS would be able to "pick winners" leaving other unsuccessful Applicants to rule out launching their plans in Singapore. Applicants may also require some certainty in terms of the legal and regulatory requirements which they would be required to comply with after exiting the Sandbox (assuming they are successful) as this would allow them to determine whether it would be viable for their business to comply with the regulatory requirements in Singapore in the first place. We therefore propose:
S/N | Respondent | Full Responses from Respondent
--- | --- | ---

- The Applicants should be notified of the "relaxed" legal and regulatory requirements they are expected to comply for the duration of the Sandbox with as soon as possible (preferably within the 21 days in which the MAS is considering whether the proposal is suitable for the Sandbox) as this may affect the Applicant’s determination as to whether or not to enter the Sandbox or consider setting up in Singapore.

- While we understand that this would be subject the results and test outcomes while within the Sandbox, the Applicants may also require some preliminary indication of the possible regulatory regime they may be subject to before deciding to apply for the Sandbox. MAS should consider when it would be feasible to provide an early indication of this.

**Question 2**

- Could the MAS please clarify its expectations for:
  - the Applicant having done "its due diligence to test and verify the viability of the FinTech solution, such as testing in a laboratory environment or obtaining external validation of the FinTech solution." E.g. is a prototype sufficient?
  - the Applicant "can reasonably and effectively experiment with the FinTech solution in a laboratory or test environment"? Could the MAS provide guidelines on what would be considered reasonable and effective experiments? If the Applicant can indeed reasonably and effectively experiment within a laboratory or test environment but the Applicant has an innovative solution and the current regulatory regime imposes restrictive regulatory obligations, would there be scope for the Applicant to subscribe to the Sandbox so that the MAS can also assess suitable legal and regulatory requirements to be imposed on their innovative business?

**Question 6**

- Applicants may require certainty in terms of the timeline for the MAS to complete the evaluation. While this would understandably depend on the complexity and the specific legal and regulatory requirements involved, innovation in the FinTech space is time-sensitive and Applicants would want to get to market as soon as possible. The MAS should provide an maximum timeframe within which it would finalise its
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Bankers Association for Finance and Trade (BAFT)</td>
<td>Question 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- BAFT would like to applaud the foresight and leadership of the Monetary Authority of Singapore (“MAS”) in crafting a proposed regulatory sandbox that appropriately balances both the risks and the promises of rapidly evolving financial technology. We believe Singapore is well positioned to provide one of the most nurturing environments for financial innovation in the world. We thank MAS for being both clear and specific in their specific proposed guidelines for its regulatory sandbox (“Guidelines”). We believe the Guidelines proposed will be of tremendous benefit to both major financial institutions, as well as smaller financial technology start-up companies. Further, we commend MAS for maintaining important financial system safeguards in the sandbox, such as compliance with anti-money laundering and counter terrorism financing requirements.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- We believe the proposed structure of the sandbox, with a few small modifications, will serve as a model for other jurisdictions across the world that are considering similar regulatory regimes. BAFT firmly believes that the evaluation criteria proposed for the MAS sandbox should be adopted across jurisdictions to maximize the value of such constructs for both businesses and regulatory authorities alike. We believe a harmonization of standards and requirements across the world and the de facto creation of a “global sandbox” is the best approach to foster the development of global solutions and markets and to maintain the security and stability of increasingly interconnected financial systems.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- With that in mind, we would urge MAS to consider the global nature of many emerging financial technologies as it pursues both its regulatory sandbox and its conversations with other regulatory authorities around the world. We note - and appreciate - Singapore’s recent creation of a “regulatory bridge” with the United Kingdom and Australia as mechanism for collaboration that should be replicated.</td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• BAFT urges the simplification and harmonization of regulatory expectations both across and within jurisdictions. To the extent other regulatory authorities in Singapore may have jurisdictional authority over particular financial services or products, BAFT would encourage MAS to lead the coordination of those efforts. Coordination could be accomplished through a central office dedicated to innovation within MAS or the establishment of a national innovation task force with a central website offering resources such as reference materials, regulatory guidance, and points of contact for inquiries. BAFT believes that it is important that regulatory authorities establish clear lines of communication for companies who wish to interface on innovation efforts generally and the regulatory sandbox specifically.</td>
</tr>
</tbody>
</table>

**Question 2**  
- We commend MAS for transparently identifying circumstances for which the regulatory sandbox may not be suitable in Paragraph 5.5. BAFT requests that MAS provide greater clarity around the term “similar” as used in Subparagraph 5.5.a. Certain innovative solutions that could substantially reduce costs or increase efficiencies might at first glance, seem “similar” to solutions currently being offered in the marketplace. Without additional guidance regarding this term, some innovators with new and promising solutions may be discouraged from applying for the sandbox and providing MAS with information showing that the solution is indeed suitable.

**Question 3**  
- Although BAFT believes that Paragraph 6.2 and ANNEX B are reasonable overall, we offer a few comments and suggestions below:  
  o We believe some terms could be better defined. Specifically, it is unclear what the term “technologically innovative” means in Subparagraph 6.2.a. Without further clarification, different entities and firms could have very varied interpretations.  
  o We note that Subparagraphs 6.2.f and 6.2.g could also be clarified. It is unclear how much detail MAS expects the applicant to provide with regard to the assessment and mitigation of risks and the crafting of an “exit and transition” strategy. Small start-up companies often lack
the knowledge and experience required to address these issues in depth. For companies building blockchain solutions, scalability is dependent on how regulators view the overall architecture, data security policies, and other issues. MAS prudently requests companies to consider future scaling or exit strategies at the beginning of the testing process. However, it should recognize that, for some companies, the full development of such strategies may be contingent on input from MAS and require iteration.

**Question 4**

- BAFT believes that if a solution is found to be valuable to the marketplace, and does not present risks to citizens, or to the overall financial system, it should be allowed to go into full production. If the innovator cannot fully comply with laws or regulations because the rules do not neatly apply to the solution, BAFT would urge policymakers to change such rules. We believe it is incumbent on lawmakers to recognize and respond to the quickly evolving financial technology landscape in a way that provides protection for consumers and clarity for businesses.

- If a financial technology company achieves the test outcomes but is unable to fully comply with legal and regulatory requirements, MAS should issue the company a “waiver” or “no action letter” and allow the company to deploy the solution on a broader scale while policymakers work to amend the law or regulation at issue. We believe a “no action letter” would be a preferred “exit ramp” for such a product, and that their issuance is a practice used by regulators in both the United States and the United Kingdom. In the alternative, MAS should extend the duration of the sandbox for the period of time required by the policymakers to change the law or regulation.

**Question 5**

- Subparagraph 7.4.a. states that participation in the sandbox will be discontinued if “either MAS or the Applicant is not satisfied that the Sandbox has achieved its intended test outcomes.” However, the Guidelines do not articulate whether or not there will be a review or consultation process between MAS and the applicant before arriving at that conclusion. We urge MAS to consider such a process and
Further, we ask that MAS to provide greater clarity regarding the term “critical flaw” in Subparagraph 7.4.b. Perhaps MAS could provide examples of what it would consider a critical flaw.

Overall, we believe MAS should keep flexibility as a key principle in reviewing applications and in monitoring ongoing testing of products. It is of little benefit to either businesses or regulators to have companies lingering in sandboxes. Companies will need additional time to make changes to products either based on regulatory or customer feedback, or perhaps both. MAS should reward companies who are committed to working with it and avoid adverse action that could stifle not only product development and improvement, but potential future benefits to consumers.

Question 6

- BAFT believes that MAS’ proposed sandbox will likely result in a large number of applications being submitted, which could help spark enormous innovation in financial services. That said, the application and evaluation process for a sandbox is most effective when there are open lines of communication between applicants and regulators. The process is intensive, necessitates ongoing conversations, and the time frames for deliverables are short. Accordingly, we urge believe that MAS should secure and deploy the needed resources to coach and guide applicants through the process.

- We applaud the recognition by MAS in Paragraph 8.2.b that “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.” Especially with respect to those solutions that might seem similar to those already being offered in Singapore, but promise greater efficiencies or lower costs, we implore MAS to seek additional information from the applicant if needed without dismissing the application outright.

- MAS should provide the reasons why the criteria was not met to those applicants who are denied entry into the sandbox to provide transparency into the decision-making process.

- Finally, BAFT urges MAS to add a clause to the Guidelines stating that information regarding a proposed solution
RESPONSE TO FEEDBACK RECEIVED ON  
FINTECH REGULATORY SANDBOX GUIDELINES

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>contained in an application will be held confidentially by MAS. We strongly believe that any proprietary information – especially if such information involves a truly innovative product – should not be publicly accessible. We fear that if confidentiality cannot be maintained then there would be a significant chilling effect on the sandbox’s potential to foster a truly nurturing environment for innovation.</td>
</tr>
</tbody>
</table>

**Any other comments**

- Para 7.2 – BAFT urges MAS to be flexible in terms of the timelines presented for entities to maintain their status in the sandbox. We believe MAS timelines may be too rigid, and would urge consideration of allowing multiple extensions, on a case by case basis. BAFT notes that the testing and refining of innovative services and products demands an enormous amount of effort and time and will likely be an iterative process. In some cases, companies with promising solutions have found themselves exited from a regulatory sandbox of a jurisdiction in mid-iteration. Such an outcome should be avoided at all costs.

- BAFT believes that companies showing sincere commitment to the Guidelines and the iterative process of improvement should be allowed to continue testing. As we noted earlier, it is not in the interest of a company, the government, or the public at large for a solution to linger in the sandbox. A sensible and flexible off-ramp should be used for non-viable products or mature products that require licensing. However, as long as the product holds promise and continues to develop, we would urge MAS to allow the product to stay within the boundaries and protections of the sandbox.

6 Certis CISCO Secure Logistics Pte Ltd

**Question 1**

- To garner support from FIs to do joint trials.
- To be open to new ways of payment and new e-wallet platforms like those adopted in US and China.

**Question 2**

- 5.5a – while there could be similarity for the solutions, the solutions could work on different and more innovative platforms to bring about the same outcome. Thus still not be rejected outright.
- The rest of the terms are reasonable.
S/N | Respondent | Full Responses from Respondent
---|------------|----------------------------------

**Question 4**
- In order not to stifle with technological advancement/disruption, Fintech solution should proceed if it benefits the broader base and provided it does not contravene the laws. Regulations can be reviewed to accommodate the changes.
- Unlevel playing field could be addressed by looking at the cost-benefit analysis of the project. Market will drive players into an equilibrium situation.

**Question 5**
- If the proposed solution disrupts but does not have support the strong foundation and integrity laid for Singapore as a global financial centre.
- When it does not bring about economic value or benefits.
- When it contravenes AML or other criminal activities.

**Question 6**
- As a standard across all projects, the application and approval process is reasonable but will still need to review on a case-by-case basis.

7 | CFA Society Singapore Advocacy Committee (Daryl Liew, Alan Lok, Tan Lay Hoon, Maurice Teo) | **Question 1**
- Applicants are likely to need support in the form of:
  - mentorship,
  - funding,
  - intellectual property protection,
  - regulatory compliance training,
  - consumer outreach and education.
- MAS could, either alone or in partnership with other government agencies, facilitate FinTech participants in obtaining said support such as by organizing training sessions to navigate regulatory compliance issues and listing successful Applicants on the MAS website to “legitimize” their services.

**Question 2**
- Certain types of FinTech solutions may not be suitable for the Sandbox e.g. those that require a relatively long testing period (e.g. more than 5 years) and whose impact during tail-
end risk events (Black Swan) cannot be simulated in laboratory conditions, or those that require a relatively large population size (e.g. more than 10%) for testing before any meaningful inference can be obtained.

- Having said that, we would like to seek MAS’ clarification on how strictly it would be applying these criteria. We encourage MAS to be open to as many new ideas as possible, even if one or more of these circumstances may be met. For example, in relation to paragraph 5.5a (“The FinTech solution is considered to be similar to those that are already being offered in Singapore”), it is not uncommon for innovators to take an existing solution and improve on it; not allowing a potential Applicant access to the Sandbox may deny him the space to experiment on varying an existing solution.

**Question 3**

- We agree that Applicants would find it a useful exercise to go through the criteria in Annex B before they submit their application. Successful applicants in the Sandbox should be encouraged to go through them on an ongoing basis (e.g. annually, if the testing period stretches beyond a year) to ensure that the FinTech solutions that they are experimenting with continue to satisfy the criteria and report any deviation to MAS.

**Question 4**

- We are of the view that each case should be reviewed on a case by case basis. Without understanding the full facts as to why the Applicant is unable to comply with the relevant legal and regulatory requirements, it may not be possible to state categorically whether the Applicant should be allowed to proceed to deploy the FinTech solution on a broader scale. MAS may also need to consider circumstances where legal and regulatory conditions have not kept pace with technological advances, and hence work with government agencies to update their regulations.

**Question 5**

- We agree with these proposed circumstances. Applicants on the Sandbox should be required to disclose clearly the exit and transition plan for customers in the event that the FinTech solution is discontinued, before onboarding their customers.

**Question 6**
We note that one of the factors MAS considers is whether the Applicant has tested the FinTech solution in a laboratory environment or obtained external validation of the FinTech solution. We would like to ask if MAS would appoint a third party to carry out an independent validation of the FinTech solution during the Evaluation Stage.

Any other comments

We note that the Financial Conduct Authority (“FCA”) of the UK has previously issued its own guidelines for a regulatory sandbox framework in the UK. The FCA is adopting a cohort approach to its regulatory sandbox – applications are accepted, reviewed, and approved twice a year in two separate cohorts. We would like to seek MAS’ clarification if Applicants are allowed to apply for the Sandbox at any time.

We suggest that MAS (i) provides further guidance on specific FinTech solutions that are classified as “technologically innovative or applied in an innovative way”, with examples of solutions that would have failed this criterion, or (ii) publishes real applications with reasons as to why they were approved or rejected as case studies. This will help future Applicants assess whether their applications are likely to be approved (or rejected) and reduce the number of incorrectly calibrated proposals to be considered during the application stage.

The Sandbox is unlikely to reduce all risks during actual implementation of the FinTech solution. Expectations should be set at the appropriate level e.g. graduates from the Sandbox should not market their participation in the Sandbox as a form of implicit endorsement by MAS.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>CIMB Bank Berhad</td>
<td>Question 1</td>
</tr>
</tbody>
</table>
|     |            | • Other possible forms of support including the following:-
<p>|     |            |   • To allow the Applicants to have access to non-profit organisations such as FinTech Sandbox in reaching out to their data and infrastructure partners in getting fintech data as well as cloud hosting and other service platforms. |
|     |            |   • To make available MAS’ register of Application Programming Interface and microservices |
|     |            | Question 2 |</p>
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• 5.5 a – MAS to consider allowing similar solutions that are already being offered in Singapore to enable further innovation of the solutions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 5.5 d – seek clarity on time / duration that may be imposed on the applicant to operate in country upon exiting the sandbox? Is there any geographical restriction other than deploying it only in Singapore?</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 4</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To ensure a level playing field, in the event that the Applicant still unable to fully comply with the relevant legal and regulatory requirements, the Applicant should not be allowed to proceed to deploy the FinTech solution on a broader scale. However, the Application should be allowed to tie up with an institution that is able to fully comply with the requirements.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 6</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• As FinTech is on fast-moving pace, propose to cap the time required for each evaluation cycle.</td>
</tr>
<tr>
<td>9</td>
<td>Citi Consumer Banking (Singapore)</td>
<td><strong>Question 1</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Citi believes this important initiative may be enhanced even further if the concept of “relaxing” legal and regulatory requirements can be defined more specifically. Does MAS expect it to be about waiving specific requirements altogether, or about dialing them down? Or would that be a case-by-case decision? To take any example, if it is a Cash Balances requirement that is being relaxed, would that entire requirement be suspended, or would numerical targets merely be temporarily adjusted?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For banks’ internal control officers, who have a functional duty to keep their operations compliant with normal, full regulation, we can foresee that a clearer definition could help them better support their business colleagues when an initiative is being reviewed internally for possible submission as a Sandbox candidate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Does MAS intend to produce more specific language about legal and regulatory indemnity for Sandbox participants?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Also, it might be useful for MAS to consider how it intends to deal with any concerns about equal treatment for different initiatives (e.g. why a certain requirement was relaxed more for initiative A from bank X than for initiative B from startup</td>
</tr>
</tbody>
</table>
Y), as these are questions that might well arise in such a competitive environment.

- Lastly, three related points that may be worth clarifying given that Fintech will increasingly involve cooperation between all types of companies:
  - Is it correct to assume that in cases where more than one player is involved, the Applicant—and the focus of any relaxation—will be, by definition, whoever is putting their brand in front of consumers?
  - In cases where, for example, a bank and a start-up are interested in carrying out a Sandbox experiment together, will the safe haven of relaxed regulation apply equally to all parties involved?
  - Paragraph 2.3 of the consultation paper where MAS is proposing that the Sandbox be deployed and operated by the Applicant. For Citi, any FinTech development could either be conceived locally or through our Global or Regional offices before rolling out to various jurisdictions. These developments may then either be deployed and/or operated locally or globally/regionally depending on the infrastructure and support requirements of such FinTech initiatives to achieve economies of scale. It is not clear as to whether the intent of the MAS is to require the Sandbox to be solely deployed and operated by the Applicant, or would the Applicant be able to engage either affiliates or third parties service providers to provide support for the deployment and operation of the sandbox environment.

- Request that the MAS consider including “MAS Guidelines on Outsourcing” in the list of examples of “possible to relax” regulatory requirements in Annex A.

**Question 2**

- In looking at the combined sense of sections 5.5b and 5.5c, a question arises of whether an additional circumstance for rejection should be stipulated here: the case where an Applicant cannot lay out specific points for testing in Sandbox that could not be tested in a Lab. (The proposed Sandbox application—Annex B—addresses this in section 3, sub-section “Para 6.2d and 6.2e”, items I, ii and iii)

- MAS stipulated that the Sandbox may not be suitable under these circumstances (e.g. lab or test environment). During the
development of a FinTech solution, FIs usually go through the phases of 1) conceiving of solution/idea, 2) creation of prototype for testing/application development, 3) User acceptance test and 4) Production verification testing, before the solution can be put into production (whether limited roll out or full scale rollout). We would like to seek clarification from the MAS that the “flexibility around regulatory requirements” under Annex A could also be extended to the lab and testing environment as well, without the need to seek MAS prior approval (unlike that of the Sandbox guidelines), so as to cover the entire lifecycle pre commercialization.

**Question 4**

- We believe one approach worth considering would be for MAS to keep the experiment contained to the Sandbox while the Applicant increases the scale to a significant point – still enjoying the safe haven of relaxed regulation, but also with MAS still able to “pull the plug” on the initiative before it exits the Sandbox. This seems preferable to simply allowing the initiative to go live at full scale if the Applicant cannot be fully compliant – a scenario which would create not only an uneven playing field but also the prospect of a full regulatory shutdown of the initiative becoming necessary later on.

**Question 5**

- Section 7.4a would benefit from the addition of a timeframe, to give the Applicant sufficient time to learn.

**Any other comments**

- In general, and consistent with Citi’s response to Question 1, we believe it would be beneficial for MAS to spell out in some detail the broad rules that would apply when a Sandbox initiative is a collaboration between two or more participants – say, a bank and a nonbank, or multiple banks, or multiple nonbanks.

- One of the main aspects of Fintech is its potential for complementarity and inter-operability of products, services and solutions. A Sandbox approach that only provides clarity and safe haven to mono-player initiatives might unwittingly discourage experiments that have higher potential but require multiple parties to work together.

- One last consideration, of territoriality: MAS may want to either think about any requirements for local presence, or to the contrary, about a stated position welcoming Applicants
### S/N | Respondent | Full Responses from Respondent
--- | --- | ---
| |  | from all over the world – either solo, or in partnership with a Singapore-based entity.
| 10 | Eastspring Investments (Singapore) Limited | **Question 1**
- With respect to MAS' proposal to relax certain legal and regulatory requirements for the duration of the Sandbox, we respectfully suggest that MAS also includes the following requirements as "Possible to Relax" requirements for Applicants carrying out the FinTech solution in the Sandbox:
  - Licensing and competency requirements on individuals and firms (where applicable) - This is so that, should the Sandbox fail eventually and the FinTech solution is not deployed on a broader scale, the Applicant would not incur the unnecessary additional costs of licensing (e.g. intangible costs such as the time and effort put in by individuals to pass the relevant CMFAS exams and the administrative work involved in the representative appointment process) during the Sandbox duration period.
  - Requirement to procure Banker's guarantee, Professional Indemnity Insurance or Letter of Undertaking – This would prevent the Applicant from incurring additional costs during the Sandbox duration period and would be in line with MAS' proposal to relax asset maintenance and minimum paid-up capital requirements.
  - Requirements on outsourcing arrangements – This is in view that firms which are smaller in scale as well as FinTech players (which may also be start-ups) tend to outsource many of its corporate functions to enable them to focus on their core competencies.

**Question 4**
- We are of the view that if MAS has assessed that the FinTech solution would greatly benefit the financial industry, the Applicant could be conditionally allowed to proceed to deploy the FinTech solution on a broader scale, provided that the Applicant fully complies with the relevant legal and regulatory requirement by the end of a transition period of between 6 and 12 months (depending on the complexity of the requirements). If the Applicant still does not fully comply with the relevant requirements after the end of the transition period, the FinTech solution will be discontinued.
### ANY OTHER COMMENTS

- We would appreciate greater clarity on how MAS would decide which proposal would be suitable for and able to proceed with the Sandbox under the following situations:
  - MAS receives more than one proposals on similar FinTech solutions for the Sandbox - would MAS evaluate proposals on a first-come-first-serve basis or MAS would allow all the proposals to proceed with the Sandbox, if MAS has assessed that all the proposals meet MAS’ expectations and are suitable for the Sandbox.
  - MAS receives another similar proposal after it has already allowed a proposed FinTech solution to proceed with the Sandbox (but has not been deployed on a broader scale yet) - would MAS consider the subsequent proposal for the Sandbox, if MAS has assessed that the proposal meets MAS’ expectations and is suitable for the Sandbox as well.

- Notwithstanding our above clarifications, we respectfully suggest that MAS allows all the proposals received under the above situations to proceed with the Sandbox (if MAS has assessed that the proposals are suitable for the Sandbox). This would greatly encourage and promote FinTech innovations in a fair and competitive manner.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
| 11  | KPMG Services Pte. Ltd. | **Question 1**
  - We suggest that MAS provide more guidance with regard to the regulatory framework (e.g. legal and regulatory requirements) that non-FI Applicants would likely be subjected to if they are successful in their applications. This would allow these Applicants in conducting their own Cost-Benefit Analysis before applying to the Regulatory Sandbox.

**Question 2**

- We propose that MAS re-consider:
  - paragraph 5.5a (“The FinTech solution is considered to be similar to those that are already being offered in Singapore”). A FinTech solution under application could be very similar to existing solution offered in Singapore but could still benefit the market. We suggest that solutions that could “address a significant problem or issue” be considered for the Sandbox even if they may already be similar in concept to existing solution, but
### Question 3

- We would like to seek MAS' clarification on how critical paragraph 6.2c is – Applicant to demonstrate the ability “to deploy the FinTech solution in Singapore on a broader scale after exiting from the Sandbox”. It is possible, and even likely, that some Applicants would not have the financial or operational ability to deploy the FinTech solution as a market solution. However, such Applicants may be able to use the Sandbox as a way of demonstrating the viability of the solution to possible investors, including private equity or venture capital firms. Such investors may help the Applicant attain the ability to deploy the FinTech solution. Requiring that all Applicants demonstrate the ability to deploy the FinTech solution as a market solution at the point of application may mean that otherwise deserving Applicants may be denied the chance to test and eventually roll out their FinTech solutions.

- In relation to paragraph 6.2e (“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”), would certain customer types be preferred under the Sandbox (i.e. accredited, institutional and expert investors), or would MAS allow for retail clients (or a segment of retail clients) to be included as a target customer type in the Sandbox?

### Question 4

- If the Applicant is still unable to fully comply with the relevant legal and regulatory requirements, it should not be allowed to proceed to deploy the FinTech solution on a broader scale,

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>different in technology, platform, target demographic, etc. This can encourage innovation as well as competition in the market.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o paragraph 5.5d (“The Applicant has no intention to deploy the FinTech solution in Singapore on a broader scale after exiting from the Sandbox”). It may be possible that Applicants with niche FinTech solutions want to target overseas clients for strategic reasons after exiting the Sandbox. In addition, some Applicants may not have the ability to deploy their solutions on a broader scale immediately after exiting the Sandbox, thus this circumstance may seem to be restrictive.</td>
</tr>
</tbody>
</table>
especially in cases where the relevant legal and regulatory requirements are specifically in relation to consumer protection.

- However, if such Applicants are allowed to proceed, a possible way to address concerns of an unlevel playing field may be to impose licensing conditions on such Applicants. Such conditions may include restricting the types of customers such Applicants may deal with and/or the regulatory safeguards to meet.

- Another consideration could also be to subject such Applicant to a period (for example 6 to 12 months) of close monitoring by the MA especially if the Applicant has the potential to eventually comply with full requirements over time.

**Question 5**

- We would suggest that MAS provide more defined guidelines on measuring the success/failure of the FinTech solution in order to provide transparency and clarity for 7.4a.

**Question 6**

- We would suggest that in the event that an Applicant’s FinTech solution application is rejected in the first or second stage, the Applicant could be granted the opportunity to appeal the application rejection with a revised application in response to feedback given by the MAS.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>KYC-CHAIN</td>
<td>Question 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Work and collaboration with other regulatory bodies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Relaxations for the financial institutions that the fintech startup is working with.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Introductions to interested financial institutions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Endorsements or press release of applicable news on mutually consented basis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Question 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- If the product or service is blatantly illegal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Question 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Suggest evaluation criteria based on:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- ability to transform or create efficiencies in financial markets</td>
</tr>
</tbody>
</table>
### Full Responses from Respondent

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Question 1</th>
<th>Question 4</th>
<th>Question 5</th>
<th>Question 6</th>
<th>Any other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Linklaters Singapore Pte. Ltd.</td>
<td>General comments</td>
<td>Yes, because at times the regulatory and legal requirements will need to catch up with the technology.</td>
<td>If there is no market acceptance of the product.</td>
<td>Suggest to make this process electronic and as simple as possible.</td>
<td>Thank you for the opportunity. It is an amazing time to be building Fintech in the region.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If a fintech company can prove the product, market, efficiencies gained, then they might be able to work with regulators proactively to change laws.</td>
<td></td>
<td>For instance I have one company who would like to proceed on this, but as a startup I don’t want to be bogged down with bureaucracy.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Other suggestion is that MAS approval is NOT based on business model as this can come later, and is to a large extent up to the company to create an economically viable model. I suggest that MAS not evaluate proposals on the business opportunity from the view of a venture capitalist, be it apparently feasible or not. It should be able bringing new value and testing new ideas.

**Question 4**

- Yes, because at times the regulatory and legal requirements will need to catch up with the technology.
- If a fintech company can prove the product, market, efficiencies gained, then they might be able to work with regulators proactively to change laws.

**Question 5**

- If there is no market acceptance of the product.

**Question 6**

- Suggest to make this process electronic and as simple as possible.
- For instance I have one company who would like to proceed on this, but as a startup I don’t want to be bogged down with bureaucracy.

**Any other comments**

- Thank you for the opportunity. It is an amazing time to be building Fintech in the region.

- We welcome the MAS’ flexible approach to the relaxation of legal and regulatory requirements in this proposal to establish a FinTech regulatory sandbox in Singapore. We believe that there can be no “one-size-fits-all” approach to the regulation of innovative FinTech solutions, as each new solution will raise new and potentially novel legal and regulatory concerns. Nevertheless, we are grateful to the MAS for setting out examples of both “To Maintain”
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

Monetary Authority of Singapore

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>and “Possible to Relax” requirements in Annex A, as this provides a welcome degree of certainty whilst retaining flexibility.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o We note that the MAS’ proposed approach to the regulatory sandbox would endow the MAS with, in one sense, more power and flexibility than the UK’s Financial Conduct Authority (the “FCA”). The FCA has the power only to relax its own regulatory requirements (as contained in the FCA Handbook), but it cannot relax any national or international legal requirements, which means that, for example, the FCA cannot currently relax legal requirements imposed by European Union law. In contrast, the MAS has broad powers to relax the relevant legal and regulatory requirements which the MAS administers, and has proposed to consider doing so for the regulatory sandbox, which, we believe, should allow for more precise tailoring to the specific needs of successful applicants to the sandbox.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Regarding the scope of activities to be relaxed, or not relaxed, we think that an appropriate balance has been proposed which is broadly in line with the approach taken by the FCA. We welcome the degree of flexibility proposed by the MAS, and note that the “To Maintain” requirements appear limited to those which, generally, are fundamental obligations (such as honesty and integrity, the prevention of money laundering and confidentiality of client information). We also welcome the list of “Possible to Relax” requirements, and note that many of them are commonly cited as major obstacles to start-ups and emerging FinTech companies (e.g. credit ratings, reputation, track record and minimum liquid assets and paid-up capital).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o However, we also recognise the importance of maintaining an appropriate level of consumer protection when decisions on whether to relax a rule are taken. In this regard, the MAS may wish to highlight in para. 2.3 that an appropriate balance should be achieved in every case between promoting innovation, protecting consumers and promoting a stable financial system (amongst the MAS’ other broad objectives).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Possible additional forms of support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o No Action / No Enforcement letters (“NALs”)</td>
</tr>
</tbody>
</table>

16 NOVEMBER 2016

Monetary Authority of Singapore
An additional form of support that the MAS could consider would be the introduction of a power to grant NALs. Such support is offered by other regulators around the world, including the Australian Securities and Investments Commission ("ASIC"), the U.S. Consumer Financial Protection Bureau ("CFPB") and the FCA. At a high level, an NAL is intended to give a specific institution comfort that a relevant authority (e.g. the ASIC) will not take enforcement action against that institution in respect of a particular specific activity.

We do note that NALs have been a feature of the regulatory landscape in Australia and the U.S. for a number of years (for instance, the ASIC is able to offer NALs for a broad range of activities, whilst in the U.S. the Commodities and Futures Trading Commission and Securities and Exchange Commission can also issue NALs for various activities under their respective remits). However, the concept of an NAL has only recently been introduced in the UK, and applies only in the FCA’s regulatory sandbox. Furthermore, the CFPB’s policy on NALs was finalised only in February 2016, and is the first time NALs have been available specifically to encourage consumer-friendly financial innovation.

We note that, in all the jurisdictions noted above, the grant of an NAL does not mean that the regulatory authority cannot take action. Regulatory authorities will generally include disclaimers (e.g. to reserve the right to modify or withdraw an NAL at any time), and will still retain the power to discontinue the sandbox (discussed further in our response to question 5 below). NALs are also generally granted only in respect of a specific service or action, and tend to be granted rarely. The FCA in particular has noted that it has not yet granted any NALs at all, although the tool does remain at its disposal. It envisages that:
it would only issue an NAL where it is faced with an entirely new proposition where it is not able to issue individual guidance or waivers; 

any NALs would only be in respect of FCA rules, and would only cover the period of the sandbox; and

an NAL could never limit liability to consumers.

Similarly, the ASIC has specified that an NAL is more likely to be granted where there is no other appropriate relief available, where the ASIC has not settled its views on a subject, and where a regulatory contravention is only temporary in nature (i.e. indefinite periods of non-compliance are not intended to be covered by an NAL). The ASIC also suggests that NALs will be granted only for minor regulatory breaches (i.e. generally only for breaches that are regulatory in nature, and not where a contravention exposes a serious flaw in the applicant’s compliance function). The ASIC specifies that NALs can be granted for past, present or future conduct.

We respectfully submit, therefore, that the MAS consider taking a similar approach to the FCA and the ASIC (although we are only proposing the introduction of an NAL in the specific sandbox context) – i.e. making NALs available, but only in limited, special circumstances. Notwithstanding that NALs may have limited application (i.e. they should only be used for minor, temporary breaches) and may only provide limited comfort, they would be a useful addition to the MAS’ toolkit, as they could give the MAS additional flexibility as regards its enforcement powers where:

there is an inadvertent or unexpected breach of relevant regulations;

The emphasis would generally be on compliance with the sandbox parameters. In particular, the NAL could set out that the FCA would take no action if conduct in full compliance with such parameters led to an unexpected regulatory breach.

The FCA has noted that there is a risk that the necessary disclaimers in an NAL may affect the usefulness of such letters.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
|     |            | ❖ such breach is not inconsistent with the spirit and policy of the relevant legislation; and/or  
|     |            | ❖ the sandbox conditions have been fully complied with (but a breach has occurred nonetheless). |
|     |            | ▪ The potential availability of an NAL could assist in attracting institutions of all levels (especially those with more complex FinTech solutions, which could have greater potential for unintended consequences and inadvertent breaches) to apply for the MAS’ sandbox. |
|     |            | o New banks |
|     |            | ▪ We would note that, in the UK, as part of “Project Innovate” (broadly the equivalent of Singapore’s ‘Smart Financial Centre’ initiative) the Prudential Regulatory Authority has established a New Bank Start-up Unit (“NBSU”), in collaboration with the FCA. The need for such dual action in the UK primarily arises from the fact that all full banks in the UK are dual-regulated by the FCA and the PRA. |
|     |            | ▪ Whilst the regulatory landscape is different in Singapore (as the MAS has sole control over the authorisation of full banks, and full authority regarding their supervision) we would highlight the potential utility of establishing a body or office similar to the NBSU. Of all regulated activities (in Singapore, as well as generally globally), becoming a fully licensed bank (and maintaining that status) is arguably the most onerous regulatory process and so to provide extra support to innovative firms seeking to enter the sector would be a welcome further development, especially as the establishment of a new bank would likely not be suitable for a standard regulatory sandbox. |
|     |            | ▪ Whilst this proposal is slightly separate from the sandbox proposal itself, we think it is valuable to flag for future consideration in connection with and alongside the sandbox. |

**Question 2**

- General comments
  - o We are broadly supportive of the MAS’ proposed circumstances where the regulatory sandbox might not be suitable (“NSCs”). All of the proposed NSCs appear to
relate to situations where the utility of the sandbox could be fundamentally undermined. We are also supportive of the MAS retaining flexibility in respect of sandbox suitability (i.e. the proposed NSCs will only indicate non-suitability for the sandbox, but may not be completely determinative).

○ We also note that there are broad parallels between the NSCs and the FCA’s eligibility criteria (e.g. both are concerned with genuine innovation, readiness and suitability for testing and potential impact of the innovation in the home nation). We are of the view that a level of similarity will assist innovative firms in developing ideas to test across jurisdictions (as FinTech is rarely limited to only one country), and so welcome these parallels.

- Comments on specific NSCs

○ We would be grateful for further guidance from the MAS on the following specific points:

○ Para. 5.5a. – we would be grateful for further guidance on how the MAS will determine the “similarity” of products. For example, the FCA note in their eligibility criteria that internal “experts” may assist in determining whether a proposal is innovative. We think that it is likely that some FinTech solutions may, to an extent, be somewhat similar with only a few distinguishing features, as multiple vendors may be attempting to solve the same problem. It would therefore be helpful for the MAS to provide further guidance for when a product will be deemed similar, and how such a determination will be made.

○ Para. 5.5c. – we would welcome further guidance regarding the interpretation of the words “reasonably and effectively” in order to better understand when the MAS will deem sandbox testing to be necessary and appropriate.

○ Para. 5.5d. – we would be grateful for further guidance regarding the deployment of the FinTech solution on a “broader scale”, and whether the MAS would require firms to demonstrate a clear plan for post-sandbox expansion (for example, whether firms would be expected to give precise projections in terms of customer numbers and growth over a particular time period). We also note that this paragraph bears similarity to the
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

Monetary Authority of Singapore

evaluation criteria at para. 6.2c., though para. 6.2c. considers the applicant’s ability to deploy the FinTech solution, as well as their intention. We would suggest that these two paragraphs are aligned in order to enable the MAS to consider the applicant’s ability to deploy a FinTech solution as both an evaluation criteria and an NSC, in addition to the applicant’s intentions in this regard.

Question 3

- General comments

  - Similar to our submissions in relation to the MAS’ proposed NSCs in response to question 2 above, we are supportive of the evaluation criteria proposed by the MAS.
  - However, we would respectfully suggest that the MAS could add further value in the finalised guidelines by giving examples of what might positively and negatively impact the MAS’ determination under each of the evaluation criteria. The FCA have taken this approach by giving “positive indicators” and “negative indicators” under each of their own eligibility criteria to further assist firms in making a preliminary assessment of the value of making a sandbox application. The MAS could consider taking a similar approach, although clearly such indicators would be non-binding and non-exhaustive. For example, the MAS could specify that:

    ▪ a desk search which reveals few or no comparable offerings on the market could positively indicate technological innovation (para. 6.2a. of the Consultation);
    ▪ tangible evidence of a “problem” (e.g. a consumer / industry survey) could positively indicate that the FinTech solution will bring benefits to consumers or the industry (para. 6.2b. of the Consultation);
    ▪ evidence of sufficient resources (e.g. financial backing) could positively indicate an intention and ability to deploy the FinTech solution in Singapore following the sandbox period (para. 6.2c. of the Consultation); and
    ▪ evidence of preliminary testing prior to a sandbox application could positively indicate that foreseeable

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

S/N | Respondent | Full Responses from Respondent |
---|------------|--------------------------------|

- Monitoring of the sandbox
  - Para. 6.2d. of the Consultation notes that applicants should report to the MAS on test progress based on an agreed schedule. We would welcome further guidance from the MAS on the reporting obligations that it envisages under this paragraph, which we assume will be imposed by way of sandbox condition (and we note that a breach of a sandbox condition is a proposed ground for discontinuing the sandbox, under para. 7.4 of the Consultation, which gives added importance to understanding the MAS’ intentions in this regard).

  - Clearly, the precise obligations will depend on the size and complexity of the innovator firm and the FinTech solution. However, we would note that if the reporting obligations were to become too onerous then they could become an obstacle to growth, which would undermine the purpose of the sandbox. It would be helpful, therefore, for the MAS to provide some further insight into the reporting obligations that sandbox firms might be subject to. As part of this further guidance, we would submit that it would be particularly beneficial for the MAS to indicate any assurances it would be willing to give to sandbox firms in order to safeguard any commercially sensitive information provided under any reporting obligations.

**Question 4**

- General comment
  - We note that the MAS’ proposals for exiting from the sandbox are broadly in line with the FCA’s approach and the ASIC’s proposed approach. Both the FCA and the ASIC require full compliance with legal and regulatory requirements following the expiration of the sandbox period (generally 3-6 months), and before offering services to the wider market.

  - However, we respectfully submit that the MAS could take a more nuanced approach to exiting the sandbox, which may be more beneficial to innovator firms (whilst we also note that sandbox firms should not be gifted an unfair competitive advantage over market incumbents – a
We set out our proposal for such an approach in further detail below.

- **Alternative approach to exiting the sandbox**
  - We are of the view that a 3-6 month sandbox period may not give a firm a significant amount of time to develop, build and test a product or service (notwithstanding that FinTech solutions should be somewhat developed prior to a sandbox application, as set out in the MAS’ proposed evaluation criteria). Requiring full legal and regulatory compliance abruptly after 3-6 months may require firms to scale up quickly, and could undermine the objective to encourage FinTech innovation. In its consultation paper, the ASIC explicitly acknowledge that testing businesses “may need to cease operations for a period of time following the testing period until they can comply [with legal and regulatory requirements]”. This could potentially be damaging to an emerging FinTech business (which could lose momentum and customers) and could also undermine the entire sandbox mechanism (as innovator firms could be discouraged from applying for the sandbox if there is little evidence of success following the initial sandbox period).
  - We would suggest that a more appropriate, nuanced approach would be for the MAS to gradually introduce further legal and regulatory requirements following expiry of the initial sandbox period. Further, the imposition of further legal and regulatory requirements could be done in consultation with the sandbox firm and on a tailored, case-by-case basis. This would allow the MAS to engage directly and meaningfully with each successful sandbox firm to establish their particular needs and to agree to timelines and appropriate reporting obligations. We acknowledge that this approach would necessarily entail more work for the MAS, and would be more complex to administer and police, but it would also assist in making Singapore an attractive destination for innovators.
  - This approach would also give the MAS a flexibility similar to the FCA. In an application to the FCA’s sandbox, firms are asked to propose a duration of the sandbox, which means it could theoretically be longer than the FCA’s starting point of 3-6 months. The FCA also ask firms to propose next steps if testing is successful, so firms could

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>balance is required to be struck). We set out our proposal for such an approach in further detail below.</td>
</tr>
</tbody>
</table>

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>feasibly propose a graduated approach to further regulation (although there is no indication that the FCA would be amenable to such an approach, and the FCA is relatively definitive that firms must be fully compliant before offering services to the wider market – there does not appear to be any middle ground between the sandbox and the wider market).</td>
</tr>
</tbody>
</table>

- Indefinite sandbox period
  - A legitimate concern of the above approach may be that a sandbox is granted for an indefinite period of time, which could have the effect of causing confusion in the wider market, and possibly an un-level playing field (as discussed further below). We would submit that this concern could be mitigated by setting clear (but flexible) timelines to full regulatory compliance, with a set long-stop date. The MAS could indicate the absolute longest period of time they would be prepared to consider, whilst retaining the flexibility depending on the FinTech solution in question (as a particularly complex solution involving numerous technologies (e.g. a blockchain solution for bond issuances) may require a longer testing period, whilst a simple consumer facing platform (e.g. an information aggregator) may require a shorter testing period). In determining the exact length of any particular sandbox, and the precise exit mechanism, it may be useful to the MAS to (again) explicitly acknowledge in the final guidelines the broad balance it seeks to strike between fostering innovation, promoting a stable market and protecting consumer interests (amongst other broad considerations).
  - Even if not made public, the knowledge of the existence of close MAS oversight would, we think, help to preserve market confidence.

- Un-level playing field
  - There are risks that a graduated approach to the imposition of further legal and regulatory requirements, as described above, could be seen by non-sandbox firms and market incumbents as creating an un-level playing field. However, we would submit that these concerns are mitigated (at least in part) by the same considerations that underpin the initial creation of a regulatory sandbox. A regulatory sandbox is intended to ensure that innovation is not stifled and that firms are able to bring
innovative products and services to the market. On balance, a sandbox should always benefit consumers, provided that appropriate protections and controls are established.

- It is our view that the raison d’être of a regulatory sandbox may be undermined if, after expiry of a relatively short sandbox period, a firm is immediately required to comply with the full force of applicable laws and regulations. There is a risk that the time and effort of the innovator firm (and the MAS, in supporting the innovation) would be wasted if the product has to be removed from the market for a certain (potentially lengthy) period of time. Removal from the market could even be to the detriment of consumers if the particular product or service had a positive impact before being removed from the market (even if such removal is only temporary).

- Notwithstanding the above, we acknowledge that the particular needs of FinTech firms, and the benefits such firms would draw from a longer sandbox period must be balanced against ensuring that the sandbox is not used to allow fully developed FinTech firms to compete against firms which have the full weight of regulation applied to them, and the competitive disadvantages that such fully regulated firms face from longer sandbox periods. We would submit that the MAS should continue to take a case-by-case approach to the sandbox duration in order to ensure that FinTech firms do not receive any inequitable and uncompetitive advantages, whilst still promoting innovation.

**Question 5**

- General comment

  - We note the importance of regulators having the power to discontinue sandbox trials at any time due to the potential risks that innovative solutions could pose to the markets and consumers. The MAS’ proposed circumstances for discontinuing a FinTech solution appear mainly to be decisions made collaboratively with the applicant. We would submit that it is also sensible for the MAS to have the power to discontinue the sandbox where the sandbox firm breaches a sandbox condition.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>innovative products and services to the market. On balance, a sandbox should always benefit consumers, provided that appropriate protections and controls are established.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- It is our view that the raison d’être of a regulatory sandbox may be undermined if, after expiry of a relatively short sandbox period, a firm is immediately required to comply with the full force of applicable laws and regulations. There is a risk that the time and effort of the innovator firm (and the MAS, in supporting the innovation) would be wasted if the product has to be removed from the market for a certain (potentially lengthy) period of time. Removal from the market could even be to the detriment of consumers if the particular product or service had a positive impact before being removed from the market (even if such removal is only temporary).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Notwithstanding the above, we acknowledge that the particular needs of FinTech firms, and the benefits such firms would draw from a longer sandbox period must be balanced against ensuring that the sandbox is not used to allow fully developed FinTech firms to compete against firms which have the full weight of regulation applied to them, and the competitive disadvantages that such fully regulated firms face from longer sandbox periods. We would submit that the MAS should continue to take a case-by-case approach to the sandbox duration in order to ensure that FinTech firms do not receive any inequitable and uncompetitive advantages, whilst still promoting innovation.</td>
</tr>
</tbody>
</table>

**Question 5**

- General comment

  - We note the importance of regulators having the power to discontinue sandbox trials at any time due to the potential risks that innovative solutions could pose to the markets and consumers. The MAS’ proposed circumstances for discontinuing a FinTech solution appear mainly to be decisions made collaboratively with the applicant. We would submit that it is also sensible for the MAS to have the power to discontinue the sandbox where the sandbox firm breaches a sandbox condition.
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

Monetary Authority of Singapore

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Further detail. We would submit that para. 7.4 of the Consultation could be improved by incorporating some further guidance around the interpretation of certain phrases. In particular:</td>
</tr>
</tbody>
</table>
|     |            |   o Para. 7.4b. – it would be useful for the MAS to elaborate on the interpretation of “critical flaw”. This could be limited to instances where the objectives of the sandbox become impossible to meet (due to, for example, a technical issue), or it could be interpreted more broadly to extend to circumstances where the FinTech solution becomes unexpectedly detrimental to consumers or to the wider market. Furthermore, as currently worded, this proposed circumstance appears to require the acknowledgement of the applicant prior to discontinuing the FinTech solution – we would be grateful if the MAS could clarify whether it intends to be able to discontinue a FinTech solution where it unilaterally deems a “critical flaw” to exist. If the MAS intends to be able to take such unilateral action, it will be increasingly important to firms to understand what constitutes a “critical flaw”.
|     |            |   o Para. 7.4c. – we would be grateful for further clarification around the nature of the sandbox conditions that MAS may seek to impose, in order to further understand when a FinTech solution might be discontinued. Whilst we appreciate that sandbox conditions could vary between applicants, we would submit that there should always be conditions based on over-arching regulatory principles (such as consumer protection or safeguarding the integrity of the market) which would indirectly allow the MAS to discontinue a FinTech solution if such principles are seriously threatened.
|     |            | • Comparison with the FCA’s sandbox and the ASIC’s sandbox proposals
|     |            |   o The FCA’s powers to end testing appear to be less explicit, as it only specifies a failure to report to the Innovation Hub (the FCA department administering the sandbox), or a failure to deal with the FCA in an open and collaborative manner (which would constitute a breach of the FCA’s principles for business (Principle 11)) as circumstances where a sandbox test would be terminated. However, as noted in our response to question 3 above, the FCA has structured its sandbox in a manner akin to an “accelerator” programme, which means that the FCA may |
have closer oversight of the sandbox. Given that the MAS intends for firms to deploy their own sandboxes, we are of the view that it is beneficial for the MAS to explicitly set out marginally more prescribed circumstances where the FinTech solution will be discontinued in Singapore.

- For completeness, we note that the MAS’ proposed circumstances for discontinuing a regulatory sandbox are not similar to the ASIC’s proposed circumstances, as the ASIC’s proposed circumstances focus mainly on the advertising of the services and how the sandbox firm presents its services to consumers, as well as the simple legality of the proposals. However, the ASIC’s proposals appear mainly to be rooted in the proposal that reliance on the sandbox will require firms to prominently disclose to retail customers that services are provided in a testing environment. In this context, it is logical for ASIC to be empowered to discontinue a sandbox for inadequate disclosure. However, we do not think that this would be appropriate in the context of the MAS’ proposed sandbox regime (please see out further comments on this issue under ‘Any other comments’). Therefore, we are of the view that these differences are of little consequence and should not impact the MAS’ proposals.

**Question 6**

- **General comment**

  - We welcome the MAS’ procedural guidelines, as they set out a clear and simple application process for firms to follow, which appear to be akin to a limited licensing procedure. This is in contrast to both the FCA (which accepts applications from firms in bi-annual cohorts with specific, prescribed opening and closing dates for applications) and the ASIC (which has proposed a notification procedure rather than an application and formal approval procedure).

- **Time sensitivity of innovative FinTech solutions**

  - A common feature of new proposals in the FinTech sector is that they can be highly time-sensitive. In light of this, we would submit that the MAS’ could consider shortening its proposed timeframes. In particular, we would suggest that the MAS could shorten the period for giving an initial, preliminary view to two weeks (i.e. 14 days or 10 working days). We submit that the MAS’ current proposal may
leaving innovating firms in an uncertain position for a whole month, which could be damaging to those firms.

- We appreciate that the MAS will require discretion in how long it will need to fully assess and approve a sandbox application. The MAS’ proposals for sandbox eligibility are broad (a feature that we welcome) and we therefore understand that the time necessary for assessing an application is difficult to prescribe, as the sandbox may attract a broad range of applications which will vary in complexity.

- However, if the MAS does intend to retain full discretion on the time period for assessment / final approval, then it would be beneficial to:
  - shorten the time for preliminary approval; and
  - provide an indication of a timeframe for full and final approval when giving the preliminary approval.

- We would expect the MAS in any event to make it clear that timelines in respect of (a) and (b) would be non-binding, but nevertheless such preliminary assessment would give some welcome certainty to innovator firms. Furthermore, an indication of a timeframe for full approval would allow firms to actively plan and prepare for the commencement of the sandbox period.

Any other comments

- Para 7.2 – We welcome the flexibility of the MAS in proposing to consider extensions to the six-month regulatory sandbox period on a case-by-case basis. However, we would request further details in the final guidelines regarding:
  - the potential amount of time that the sandbox period could be extended by;
  - the criteria for extending the sandbox, in addition to the single example given in para. 7.2; and
  - how an extension might interact with a firm’s exit from the sandbox – we are of the view that an extension of the sandbox period could be considered together with a phased or graduated exit procedure, as discussed in our response to question 4 above.

- Publicity of the sandbox / informed consent of customers and investors
We note that the proposed guidelines are currently silent on the issue of whether customers / other investors should be made aware that they are dealing with a firm which is operating within a sandbox. This can be a difficult question, as consumer protection considerations might suggest that investors should be fully informed. However, informing investors of the existence of a sandbox might cause them to act differently, which could defeat the point of the sandbox (i.e. by skewing the results of the testing, thereby creating potential inaccuracies in the test results).

In this respect, the FCA has noted that prima facie it will not impose additional disclosure and consent requirements on sandbox firms. The FCA does reserve the right to require additional disclosures of sandbox involvement (particularly if sophisticated investors are engaging in the sandbox under informed consent and agreeing to limit their claims to compensation, such investors should be given information about the test and the available compensation to them). This is because the FCA was concerned that circumstances where informed consent is given tend to be accompanied by a limitation of legal rights, and the FCA has indicated that it is keen to ensure that those involved in sandbox testing retain the full range of legal rights against the innovator firm. This indicates a preference towards not requiring informed consent, at least for retail consumers.

Conversely, the ASIC has proposed taking the approach of requiring sandbox firms to clearly and prominently disclose to retail customers that the relevant financial services are being provided in a testing environment. Inaccurate disclosure is a ground for the ASIC to terminate the sandbox early (as noted in our response to question 5 above).

We are of the view that the optimal approach is that of the FCA. General consumer protections should continue to apply to sandbox activities, but generally there should be no need for specific disclosures of sandbox

---

3It should be noted, however, that (as far as we are aware) the FCA have not yet reached a definitive view of this point.

---

Monetary Authority of Singapore
participation, especially if the sandbox firm has in place effective compensation and exit plans. However, it is also important for the MAS to retain the flexibility to impose extra disclosure requirements as necessary or appropriate in a particular sandbox application.

- In light of the above, we would respectfully submit that the MAS approaches this issue in a similar manner to the FCA. Further, irrespective of the approach the MAS takes to this issue, we would submit that the favoured approach should be explained in the final guidelines in order to provide clarity on this important point.

- FinTech vendors who are on the regulatory perimeter
  - We would flag that a number of FinTech vendors do not require a licence from the MAS, but do provide services and products to licensed financial institutions which are subject to numerous regulatory requirements, such as outsourcing rules and management of technology risk. The regulatory obligations of the financial institution are typically passed on to the FinTech vendor by way of private contractual obligations. Examples of this would include a FinTech vendor which provides cloud computing services to a financial institution or a FinTech vendor which provides a tool to analyse “big data” for a financial institution (both of which may, for example, raise data privacy and/or banking secrecy concerns).

  - We respectfully submit that these secondary obligations can be as burdensome and difficult for FinTech vendors (in particular start-ups) to comply with as the primary obligations themselves. Notwithstanding that the obligations are imposed privately by contractual parties (and not directly by the MAS), there are ways in which the MAS could consider providing support as part of the sandbox.

  - One option would be for the MAS to consider ‘sandboxing’ the FinTech vendors themselves, notwithstanding the fact that such vendors are not themselves regulated. A relaxation of rules for the FinTech vendor could provide indirect comfort to a financial institution looking to use the relevant services, and could lead to less onerous contractual obligations being imposed by the financial institution.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>o However, if the MAS is concerned about sandboxing unregulated entities, a second option could be for the MAS to accept joint sandbox applications between the financial institution and the FinTech vendor. In this way, the MAS could assess the benefits and viability of the FinTech solution and could then provide specific relaxations of legal and regulatory requirements for the financial institution itself. The relaxation of the primary obligations on the financial institution would trickle down to the FinTech vendor, reducing their secondary legal / regulatory burden.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Finally, we note that neither the FCA nor the ASIC appear to be considering this concept of secondary legal and regulatory obligations. An adoption of a policy and mechanism for non-regulated FinTech vendors who are subject to secondary legal and regulatory obligations could therefore provide the MAS’ sandbox with a positive and valuable distinguishing feature.</td>
</tr>
<tr>
<td>14</td>
<td>Lymon Pte Ltd</td>
<td><strong>Question 2</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regarding para 5.5a, we have the following comments:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o The discouragement of the offering of similar solutions to those already offered in Singapore could potentially hinder healthy competition amongst applicants to the Sandbox as it appears that only the first applicant would be accepted into the Sandbox.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o In addition, if an applicant puts forth a proposed business model that involves performing multiple functions currently licensed under unrelated different industry entities under the existing MAS regulatory regime, would this proposal be considered to be ‘similar’ to those that are already being offered in Singapore?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regarding para 5.5b, we have the following comments:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Would there be MAS-specified criteria that indicate what type of entity(s) is authorised or permitted to give the ‘external validation’ to the applicant?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Would a related entity be able to give ‘external validation’ to the Applicant, for instance, if it meets certain criteria specified by MAS?</td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regarding para 5.5c, we seek MAS clarification if the onus is on the Applicant to prove that it cannot reasonably or effectively experiment with the FinTech solution in a laboratory or test environment. <strong>Question 4</strong> • We propose that the Applicant should not be allowed to proceed to deploy the FinTech solution on a broader scale if it is unable to fully comply with the relevant legal and regulatory requirements. • A possible suggestion around this issue could be to attach the Applicant to a Sponsoring Financial Institution ('Sponsoring FI') that is able to comply with the legal and regulatory requirements by offering the FinTech solution on the Sponsoring FI’s platform. In the above proposed scenario, the legal and regulatory risks of the Applicant’s business model would be borne by the Sponsoring FI, in exchange for benefits that the Sponsoring FI can obtain for its own business model by offering the FinTech solution on its platform. In addition, MAS can consider encouraging Sponsoring FIs to take on Sandbox Applicants by offering tax incentives. • Such an arrangement could be dissolved by mutual consent once the Applicant is able to meet the legal and regulatory requirements on its own, as well as with approval from MAS. <strong>Question 6</strong> • We hope MAS can provide more specific guidance regarding the time that will be taken between the evaluation stage and the In-Progress stage, given the fast pace of innovation in the IT industry. For example, 12 weeks. A prolonged evaluation period increases the risks of losing first-mover advantage, as well as the risks of technology obsolescence. <strong>Any other comments</strong> • After the Applicant’s exit from the Sandbox, we hope that MAS will direct the Applicant to the relevant departments for licensing purposes, and enable a smooth transfer of knowledge from the FinTech department to the other relevant departments.</td>
</tr>
</tbody>
</table>
| 15  | MasterCard Asia/Pacific Pte Ltd | **Question 1** • MasterCard is a technology company in the global payments industry that connects consumers, financial institutions,
MasterCard thanks the Monetary Authority of Singapore (MAS) for this opportunity to provide comments on the proposed FinTech Regulatory Sandbox Guidelines. MasterCard Asia/Pacific Pte Ltd is the regional headquarters for MasterCard in Asia Pacific. In Singapore, we also established MasterCard Labs in 2012 – the first in Asia. MasterCard welcomes MAS’ forward looking approach to emerging trends. Their willingness to embrace new business models and disruptive technologies is clearly a positive development and helps to establish Singapore as a cutting edge and approachable market for investment and innovation.

The pace of technological change in the global economy is quickening. Consumers’ expectations for product experiences are no longer shaped by financial providers alone but by the incredible experiences they discover in their daily lives online. Disruptive technologies have revolutionized and transformed the way people live and conduct their activities and this invariably challenges the status quo and pushes the boundaries of regulatory norms. Innovation creates tension in the ecosystem and the list of digital players that have become household names tell this story. MAS has rightly identified that a key driver to transforming Singapore into a smart financial centre is the provision of a conducive regulatory environment for the innovative and safe use of technology (para 1.2).

4. MasterCard is proud to be a partner and festival sponsor of the Singapore FinTech Festival and we welcome the initiatives MAS is taking to promote and develop the FinTech ecosystem in Singapore. MasterCard embraces FinTech as a
means to enhance competition, innovation and consumer welfare and is active in contributing to or participating in innovative FinTech initiatives. A vibrant FinTech ecosystem – consisting of governments, banks, financial institutions, entrepreneurs, technology experts, industry experts, venture capital companies etc. – can stimulate the economy by enabling growth opportunities for many sectors including software, data analytics, payments, platforms (e.g. peer to peer lending and trading), mobile banking, algorithmic asset management systems and many others.

- To develop a vibrant ecosystem, there must be a level playing field for all players in the ecosystem, regardless of whether a solution was developed by a start-up or more established financial institution, the Sandbox approach should be able to apply. Para 2.2 sets out the basis for establishing this level playing field, which we agree with.

- In the enthusiasm for supporting small new FinTech start-ups, the MAS should be mindful not to overlook the vital role played by larger and more established players in driving competition and innovation in financial services and payments, particularly given Singapore’s position as a vital financial and technology hub for many global banks and financial institutions. Experienced players – including MasterCard – have the resources and expertise to research, develop and scale innovative products more efficiently and effectively than most start-ups. MasterCard has also developed certain disciplines and programs that embed innovation as a culture of the organisation and this extends our ability to form meaningful symbiotic relationships with smaller start-ups in the ecosystem –
  - MasterCard Start Path is an example of MasterCard’s global effort to support innovative, early-stage start-ups developing the next generation of commerce solutions today. Through Start Path, we help these start-ups succeed by leveraging a variety of options to work together. Start-ups can benefit from the knowledge of MasterCard experts and also access to MasterCard customers and partners. Beyond that, they can innovate on top of MasterCard solutions.
  - MasterCard’s Developer engagement – launched in 2012 – aligns with MasterCard’s focus on innovating across all areas of our business. MasterCard’s developer zone engages the broader technology community through
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>

programs like two-day long competitions that bring together the world’s top developers, designers and entrepreneurs to leverage the power of MasterCard APIs. Using these, developers can focus on powering commerce on a global scale. The participating teams compete to create innovative prototypes that demonstrate artful coding and design skills while also articulating clear business use cases aimed on the innovation and evolution of commerce applications.

- In Annex A, we note in the examples of “possible to relax” requirements that the list refers to aspects of the licensing process. Apart from relaxing specific legal and regulatory requirements which the applicant would otherwise be subject to, where and if it would be appropriate, we ask if MAS would consider granting applicants an exemption from a licensing requirement altogether within the Sandbox?

- Under the examples of “to maintain” requirements in Annex A, we would like to submit that the list should also include internationally recognised security standards. No approval should be given if MAS has a legitimate concern that a security risk to existing market mechanisms is created or exacerbated. In payments for example, the EMV standard facilitates worldwide interoperability and acceptance of secure payment transactions. Today there are EMV specifications based on contact and contactless chip, common payment application (CPA), card personalisation and tokenization⁴.

**Question 2**

- First and foremost, a smart financial centre must be a safe financial centre. The first priority on Singapore’s journey towards a Smart Financial Centre is therefore to continually strengthen the industry’s cyber security.⁵ MasterCard shares this view and recognises the paramount importance of protecting infrastructure against cyber-attacks in the digital age and as communities become more connected. MasterCard continues to invest in cyber-security related technology enhancements to deliver greater peace of mind.

---

³https://www.emvco.com/
⁴“A Smart Financial Centre” – Keynote Address by Mr. Ravi Menon, Managing Director, Monetary Authority of Singapore, at Global Technology Law Conference 2015 on 29 June 2015.
for cardholders, merchants and banks. In our effort to mitigate risk and improve security, we are taking the lead in establishing tokenization standards with MasterCard Digital Enablement Service (MDES) providing the foundation for innovative payment solutions like Apple Pay, Samsung Pay and Android Pay. We are also innovating to enable consumers to authenticate and verify their transactions using a combination of unique biometrics such as facial and voice recognition (known as selfie-pay) and fingerprint matching.

- Innovation should not come at the expense of security. As to circumstances where the Sandbox may not be suitable, we would submit that any FinTech solution that could compromise cyber security or increases cyber-security risks for globally accepted network and messaging standards and/or an undue cyber security risk exposure to a single and/or uninvolved stakeholder in the eco-system, should be deemed unsuitable. Under no circumstance should the Sandbox be abused to become a backdoor channel for introducing FinTech solutions that compromise security of the financial, banking sector and critical infrastructure.

**Question 3**

- The proposed evaluation criteria in para 6.2 is a fairly comprehensive list. With respect to Annex B, some of the requirements in Table 3 pertaining to the criteria on para 6.2a, 6.2b and 6.2c for comparisons of key features against similar or competing technologies; comparisons with existing or alternative products, services or processes of similar nature; comparisons against similar markets globally, may be overwhelming for applicants and especially new FinTech start-ups who may not have access to such information or lack the exposure to overseas markets.

- We are cognizant of the constant and rapid pace of change in technology, and, as such our recommendation is for the MAS to consider forming an Innovation Advisory Panel comprising best in class expert representatives within the FinTech ecosystem (governments, financial institutions, banks, entrepreneurs, industry experts, technology experts, venture capitalists etc.) that can advise MAS in its assessment of the proposal submitted by the applicant.

- To enhance transparency of the evaluation process, MAS could consider documenting its assessment and the rationale for its decisions on Sandbox applications and making this
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>public on its website, for example. The FinTech ecosystem could benefit from these learnings.</td>
</tr>
</tbody>
</table>

**Question 4**

- As a basic principle, there must be a level playing field for new FinTech start-ups, more established companies and players in the FinTech ecosystem (please refer to our response in Question 1). In such a situation where the applicant is still unable to fully comply with the relevant legal and regulatory requirements, a logical path forward could be for the applicant to simply apply for an extension of the Sandbox period until they are able to meet the requirements and/or drive change in regulation first. The extension process in para 7.2 could apply for such cases.

- Allowing the applicant to proceed to deploy the FinTech solution on a broader scale when they have yet to pass the test could unduly expose MAS and the community to considerable risk. It also raises questions related to how such requests might be assessed? What would be the rationale for deciding whether to allow or not allow the FinTech solution to be deployed? How long should the FinTech solution be allowed to be deployed? Would there be a subsequent review of the solution? This would inherently introduce uncertainty and risk in the Sandbox process.

**Question 5**

- In addition to the circumstances listed in para 7.4 (a to d), a FinTech solution should also be discontinued where the applicant has failed to demonstrate commercial viability that creates value above and beyond existing solutions. MAS should consider setting success criteria for the sandbox based on current systems/technology to benchmark that test outcomes perform at parity or better than existing technology solutions.

**Question 6**

- We appreciate the difficulty in placing a timeline on the evaluation stage given technology cycles are becoming more compressed. The challenges faced in evaluating complex proposals with specific legal and regulatory requirements can be assisted by way of advice from a panel of experts that MAS can call upon, which is our recommendation to Question 3 that the MAS consider forming an innovation advisory panel for Sandbox applications.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Microsoft</td>
<td><strong>Question 1</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Microsoft welcomes the principles of the Sandbox set out in paragraph 2.3 as such principles reflect our comments noted above on the importance of a flexible, transparent and accessible regulatory regime in the financial technology sector. Microsoft notes the Sandbox principles aim to remove red tape, promote and foster innovation while being based on a non-negotiable platform of stable, safe and secure solutions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In addition, from its engagement with financial institutions and regulators around the world, Microsoft understands that data security, privacy and confidentiality are top of mind for financial institutions when they are considering the adoption of any new technology. From these discussions, Microsoft notes that there is growing acceptance that not only can technology solutions comply with applicable regulatory confidentiality and security requirements, they can in fact help to facilitate even greater levels of security. With appropriate safeguards in place, as measured by reference to international standards such as ISO 27001 and ISO 27018, cloud-based technologies can deliver levels of data security, confidentiality and privacy that meet, and in many cases have the potential to exceed, a financial institution's current &quot;in-house&quot; technology solutions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Microsoft strongly agrees that &quot;confidentiality of customer information&quot; should be included in the list of “Examples of &quot;To Maintain&quot; requirements” in Annex A of the Consultation Paper. It is essential that innovation is built upon a sound, secure and trusted platform.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Microsoft also agrees that &quot;fit and proper criteria particularly in honesty and integrity&quot; should be included in the list of &quot;Examples of &quot;To Maintain&quot; requirements&quot; in Annex A of the Consultation Paper. To ensure that innovation is built upon a stable and secure platform, a relevant financial institution or technology service provider should have the requisite reputation and competence. This principle is also set out in the Safe Cloud Principles for the Financial Services Sector, a copy of which is available at the Asia Cloud Computing Association website. Other Safe Cloud Principles are also applicable to the Sandbox, examples of which are set out below in our response to Question 3.</td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Microsoft further agrees with MAS’s “Examples of &quot;Possible to Relax&quot; requirements” (e.g. asset financial soundness, credit rating, minimum assets) as such requirements may lead to innovation being abandoned at an early stage without being tested or trialled. Microsoft also notes that an example of a &quot;Possible to Relax&quot; requirement is &quot;MAS Guidelines&quot;. In this respect, Microsoft believes that the industry would benefit from clarity as to which guidelines (or components thereof) remain applicable and the extent that such guidelines may be relaxed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Microsoft welcomes the steps being taken by MAS to support the adoption of innovative technologies. As noted above, recent research by Forrester confirms that the better a financial institution’s understanding of regulation, the more likely it is to embrace technology. As such, Microsoft would welcome the development of:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o practical guidance for financial institution stakeholders on the key regulatory considerations relating to deployment of technology within the Sandbox. Such guidance need not be overly prescriptive but should help financial institutions to navigate the key considerations;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o further industry engagement in the form of practical workshops and events, which should include financial institutions, FinTech service providers and MAS, to caucus common concerns and to share practical learnings. MAS FinTech Festival 2016 would provide a great launchpad for such engagement;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o regional and global collaboration between the different regulators, their regulated institutions and FinTech service providers, including intra-regional and inter-regional best practice; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o a partnership approach between financial institutions, technology providers and MAS, to foster even greater innovation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• As one of the most established providers of technology services, Microsoft would be delighted to participate in such efforts as a means of sharing its own learnings for the benefit of the financial services ecosystem.</td>
</tr>
</tbody>
</table>

**Question 2**

• Microsoft notes that one of the proposed circumstances that Sandbox may not be suitable is when "the Fintech Solution is
considered to be similar to those that are already offered in Singapore". In this respect, Microsoft notes that innovation may be built on or refine existing solutions, with such innovation being quite nuanced. As such, we would suggest that this requirement, should it be adopted, not be interpreted too strictly.

- With respect to the other proposed circumstances, Microsoft agrees with such proposed circumstances but notes that these circumstances are, in effect, the inverse of the Sandbox Evaluation Criteria dealt with in paragraph 6. In the interests of simplicity, Microsoft would suggest that the requirements in paragraphs 5 and 6 are merged into a single set of affirmative criteria. For example, rather than specify that the FinTech solution must not be similar to those already being offered in Singapore, MAS could instead rely upon the affirmative requirement from paragraph 6.2a. that the FinTech solution "is technologically innovative or applied in an innovative way". In this respect, see also Microsoft’s response to the next question.

**Question 3**

- Microsoft broadly supports the evaluation criteria but would welcome further clarification in two areas.

- As mentioned above, Microsoft notes that a proposed FinTech solution must be "technologically innovative or applied in an innovative way". In the evaluation of an application and in order for innovation to flourish, Microsoft suggests that MAS take a narrow view of such requirement in this regard.

- Microsoft also believes that the Safe Cloud Principles for the Financial Services Industry, as noted above, may be helpful in formulating a principle-based approach in evaluating the proposed technology. Besides a technology service provider’s reputation and competence as noted in our response to Question 1A above, we also believe the following principles are relevant to the Sandbox:
  - confidentiality and certified security standards: technology being deployed within the Sandbox must have robust security measures and comprehensive security arrangements; and
  - resilience and business continuity: any technology provider being engaged must deploy reliable solutions
S/N | Respondent | Full Responses from Respondent
---|---|---

Within the Sandbox and should have effective business continuity plans.

**Question 4**
- As a point of principle, Microsoft does not believe that a solution should be deployed unless it complies with the relevant legal and regulatory requirements. In Microsoft's view, it is important that:
  - the legal and regulatory framework is sufficiently flexible to ensure that any relevant laws and regulations can keep pace with new technologies; and
  - clear guidance in the form of explanatory notes or guidelines is provided to financial institutions that deploy technology to help them understand and meet any legal or regulatory requirements.

**Question 5**
- Microsoft agrees with the list of proposed circumstances.

**Question 6**
- Microsoft believes that the application and approval process, supported by the application form, is clear. Microsoft believes that the industry may also benefit from further clarity as to how communications with MAS will operate on a "day to day" basis during the term of the Sandbox – noting, in particular, Microsoft's comments above about the shift towards agile development.

**Any other comments**
- Microsoft supports the establishment of the Sandbox
  - Microsoft welcomes the decision of MAS to establish the Sandbox, which Microsoft believes is a step that further establishes Singapore as a regional hub for FinTech innovation.
  - Microsoft notes that, to a great extent, FinTech innovation is powered by cloud computing. Through the provision of Microsoft's cloud services, which are already in use by a number of financial institutions, Microsoft has witnessed first-hand the potential for cloud-driven technologies to enhance value for financial services customers, increase efficiency, help manage risks and create new opportunities. Microsoft therefore strongly agrees with MAS's observation that:
"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."

Further, Microsoft believes that the Sandbox builds on the establishment of the MAS FinTech and Innovation Group, to further position MAS as an enabler of innovation, and advance MAS's mission of building a "Smart Financial Centre".

Regulation as an enabler

- Microsoft observes that, in today’s rapidly-changing financial services market, regulated institutions are under ever increasing pressure to adopt technology in order to compete, and that for many such institutions, the concept of risk has changed, from “doing or trying something new” to “not doing or trying something new or different”. The reason for this is clear; a failure by regulated institutions to experiment or embrace new and emerging technologies puts them at a significant competitive disadvantage compared with less regulated players, or digital disrupters, who have proven to be agile and targeted in their adoption of technology. Recent research by Forrester, which was commissioned by Microsoft (report attached at Appendix 1), underlines the fact that financial institutions in Singapore are under pressure to increase agility, improve efficiency and embrace digital transformation – all of which are essential for meeting the growing expectations of customers and to compete effectively with other players in the market.

- Microsoft also observes that, in its experience, certain financial institutions tend to exercise extreme caution in situations where they do not have a clear understanding of how new and emerging technologies sit with existing regulation. We have also observed that other financial institutions take a more pragmatic approach to innovation when they have a good working understanding of relevant regulations. The Forrester report has two salient (and related) findings, which echo these observations, namely:
  - the better a financial institution's understanding of regulation in the context of technology, the more likely
it is to embrace technology, leading to innovation in financial services; and

- many financial institutions have self-imposed restrictions on the adoption of new technology because of common misunderstandings as to the regulatory framework.

- The findings of the Forrester research and Microsoft's experience support MAS's assessment that "in circumstances where it is less clear to financial institutions whether a new financial product, service or process...complies with legal and regulatory requirements, some financial institutions may err on the side of caution and choose not to pursue the solution".

- Besides the importance of knowledge of applicable regulation in the context of technology, Microsoft is of the view that a transparent, flexible, accessible and encouraging regulatory regime is fundamentally important. As such, Microsoft is encouraged by the Sandbox and welcomes MAS's re-statement of its position concerning the adoption of technology solutions in Singapore, namely:

  - "Currently, financial institutions are free to launch new solutions without first seeking MAS's guidance, as long as they are satisfied with their own due diligence and there is no breach of legal and regulatory requirements."

- Microsoft has reviewed the Consultation Paper and is pleased to provide the comments below, which Microsoft hopes will help to support the refinement of the Sandbox and the ultimate usage of the Sandbox by financial institutions and therefore the adoption of new and emerging technologies in the financial services sector.

- In summary, Microsoft strongly supports and welcomes the implementation of the Sandbox. An agile, responsive and forward-looking regulatory approach such as the proposed Sandbox will be a step that further establishes Singapore as a regional hub for FinTech innovation and Microsoft believes that the Sandbox will be a key driver in growing Singapore as a "Smart Financial Centre".

- Microsoft would welcome the opportunity to continue the dialogue with MAS.
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>O2O Technologies Pte Ltd</td>
<td><strong>Question 1</strong></td>
</tr>
</tbody>
</table>

- Automated Compliance: Not requiring physical documents to be kept behind lock and key, instead acceptance of secure cloud based digital signature attested KYC and other client related documents.

- Accredited Investor Status: More evolved and informed investor risk profiling to be made acceptable to determine accreditation in lieu of the current financial net worth criteria. Companies’ compliance can be involved in determining and documenting these criteria. For example: A research analyst OR a trading analyst in a broker OR a licensed representative not satisfying net worth criteria should still qualify to be serviced as accredited investor.

- Regulatory Liability Protection: Given in every technology there is always a chance of error, however miniscule, any form of regulatory protection against unreasonable complaints would be welcome to promote innovation. For example, a machine learning based client risk profiling algorithm may not gauge the best risk profile 100% of the time. So as long as there are mechanisms in place that ensure no obviously unsuitable recommendations are made, certain amount of error tolerance by MAS would be very useful.

**Question 2**

- The circumstances stated in 5.5 are seemingly all-encompassing so any further clarity shall be much appreciated. Any objective criteria that may be used in determining viability and/or external validation of Fintech solution shall be quite helpful. Also given most solutions on face of it may appear similar but can be very different when it comes to user experience.

- For example: a startup Robo advisory might be providing substantial value add to the investing society due to its variety of features and ease of use/understanding as compared to one (already) setup by existing participants. So, borrowing a social media analogy, we should be supportive of a ‘Facebook’ even though a Google backed ‘Orkut’ exists.

- Potentially a suitability clause on the back of the FinTech start-up satisfying one or more of the 100 problem areas identified by MAS might be more apt.
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Phillip Securities Pte Ltd</td>
<td>Question 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• MAS can consider providing the computing environment for the sandboxes. This will provide both a pre-authorised environment for running the FinTech solutions as well as a quick/low cost start up for the FinTech companies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Question 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Propose to remove (a) from the list in Para 5.5. It may be difficult for FinTech companies to know the vast number of technological solutions out there. In addition, even if the output of some technologies are the same, the underlying</td>
</tr>
</tbody>
</table>

Question 3
• In agreement with MAS, no further suggestions.

Question 4
• MAS can consider giving a more lenient timeframe (6 months to 1 year) to Fintech startups to comply with regulatory or capital requirements, once they are ready to deploy their solution on a broader scale. This could be with extension of sandbox period with an in principle approval letter with regulatory capital conditions precedent attached, so the startup can raise funds from investors with the knowledge that licensing should follow.

Question 5
• In agreement with MAS, no further suggestions.

Question 6
• In case MAS needs more clarity for the application or is leaning towards rejection, it would be great if MAS can invite candidates to present their business plan or give a demo in Stage T1 to ensure no communication gaps occur in the application process.

Any other comments
• It would be great if MAS can explicitly attach higher weightage to sandbox applications where the startups are looking to address multiple problem statements. This would help startups build modules that can be useful to the industry as a whole and even share certain technological know-how. For example, the Fintech players could agree on a common standard of KYC process that can enable a centralized KYC databased which everyone integrates with.
technologies used could be substantially different, more secure or more cost efficient.

**Question 3**
- Propose to reword 6.2.g with words in red: An acceptable exit criteria or 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 4**
- Propose that MAS be ready to relook at the regulatory requirements based on the new FinTech solution to allow other players to adopt the same standards.

**Question 6**
- Propose that the notification of extension be also 21 days before the expiry, to be in line with the MAS approval timeline for the initial application.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
| 19  | Phua Teck Wee     | • In the current proposal, the key incentive for FinTechs to sign up for the Sandbox is less onerous regulatory requirements during their experimentation stage, which may not be sufficient encouragement for start-ups to come forward, especially in light of perceived overheads or scrutiny associated with the application process.  
  • If the Sandbox is intended to also serve as a channel to help MAS increase its level of involvement in the end-to-end development process of FinTech solutions, more can be done to attract greater participation from the FinTech community.  
  • Even though compliance with regulations is critical for any FI or tech start-up, it may be just only one of several pressing needs faced by these organizations. Some of these needs include, but is not limited to, funding sources, prospective customers, business partnerships, overseas contacts, mentorship, training, and manpower.  
  • In this regard, MAS, along with the relevant partner agencies and academia e.g. SPRING, IE Singapore, tertiary institutions etc., is well positioned to take a step further to help connect FinTechs to the above-mentioned resources. Hence it may make sense to further incentivize start-ups to join the |
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sandbox with the promise of improved connectivity to the rest of the ecosystem.</td>
</tr>
</tbody>
</table>

**Question 2**
- While the rationale of ensuring sufficient alignment with the nation’s interests as a requirement for FinTechs seeking regulatory support is understandable, Part d of Para 5.5 may be hard to enforce. Moreover, this could be possibly an added burden for some FinTechs encountering situations whereby deployment in Singapore may prove to be uneconomic. Care has to be taken to ensure that start-ups do not perceive this as a possible hurdle in the way of possible overseas expansion plans – some solutions may possibly evolve to become better suited to markets outside of Singapore, or to operate on a broader regional/global basis.

**Question 3**
- Comments for Part d of Para 5.5 also apply to Part c of Para 6.2.

**Question 4**
- The Sandbox should be ideally focused on providing the necessary environment and resources for FinTechs to experiment with their solutions and to iteratively refine or improve these solutions.
- If the legal and regulatory requirements are deemed to be a fair “yardstick” applicable to all FinTechs, MAS should avoid making any exemptions for any company failing to comply with them. A level playing field is a core pillar of any innovation-centric business ecosystem which should be upheld as far as possible.
- Regulators should allow natural market forces (represented by both customer and regulatory demands commonly applied to all FinTech companies) to decide which FinTech solutions ultimately succeed or fail. Care should be taken to ensure that the Sandbox is not perceived as a place where winners and losers are picked at the discretion of the regulator.
- Of course, some smaller and/or less mature companies involved in FinTech may face extreme difficulties in compliance with the existing “yardstick” requirements (e.g. 22-year old founders of a FinTech company would not be able to acquire the requisite management experience for running a licensed FI in the short-term). This may require an entirely
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>separate discussion of what is a suitable “yardstick” for companies with such characteristics.</td>
</tr>
</tbody>
</table>

**Question 5**

- Errors and mistakes are generally part and parcel of innovation – while some may be more serious than others, lessons can be learnt from all, and chances to address them ought to be granted.
- MAS can consider relaxing Part b of Para 7.4 to allow Applicants the chance to extend the Sandbox period in order to rectify both critical and non-critical flaws.

**Question 6**

- The application and approval process seems reasonable and fairly straightforward. However, time-to-market is critical for many FinTech solutions, so MAS may want to consider granting provisional access to the Sandbox for suitable companies on a case-by-case basis dependent on exigencies, during the evaluation stage.
- Such firms can then commence experimentation in parallel with the on-going evaluation and assessment process with MAS.

**Any other comments**

- The regulatory sandbox proposal is a good first step taken to facilitate experimentation and testing of FinTech solutions in a controlled “live” environment.
- Most incumbent FIs are already familiar and well experienced in compliance management and regulatory matters – so the process of applying for access to the Sandbox will seem fairly straightforward for such institutions.
- For less mature companies and start-ups, this may not be as straightforward – it will be helpful if MAS can consider putting in place a structure that provides them more explicit guidance in navigating the regulatory landscape.
- Other considerations which might help could include changes to the wording, language and/or presentation of the application forms - the choice of jargon or words used can be less “heavy” and “forbidding” to better appeal to an audience which may not possess strong background knowledge of laws and regulations.
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

Monetary Authority of Singapore

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>RHTLaw TaylorWessing (representing 20 participants of a roundtable hosted on 16 Jun 2016)</td>
<td><strong>Question 1</strong></td>
</tr>
</tbody>
</table>

- Many roundtable participants supported the proposed relaxation of specific legal and regulatory requirements. The main reason was the fact that many FinTech experimentations are initiated and carried out by start-ups, who face resource constraints.

- The retention of anti-money laundering and the countering of terrorist financing ("AML/CFT") requirements in the "To Maintain" category in Annex A was a key area of concern for the majority of participants. Whilst AML/CFT requirements are important, participants are concerned that requiring the full range of AML/CFT requirements (as applicable to relevant financial institutions) may be too onerous for start-ups due to their limited resources and lack of familiarity with AML/CFT concepts and implementation. For instance, the requirement of ongoing monitoring may be onerous for some start-ups. Participants suggest instead that a risk-focused approach be taken – where they can agree with MAS on specific aspects of AML/CFT requirements that should apply, depending on their business model.

- Another issue raised related to non-face-to-face 'know-your-customer' ("KYC") checks. Some participants commented that MAS takes an uncomprising approach on non-face-to-face KYC to certain classes of financial institutions (e.g. remittance companies), whereas it was noted that some other classes of financial institutions (e.g. banks or capital markets services licencees) are allowed to conduct non face-to-face KYC. Participants also noted that some FATF member countries allow non face-to-face KYC for remittance companies. They suggest that MAS allows non face-to-face KYC checks (as is allowed in MAS Notice 3001) for remittance companies, and not to set an overly high or restrictive bar.

- Some participants felt that MAS should extend the period during which legal and regulatory requirements would be relaxed beyond the sandbox period, as the need for start-ups to focus on fund-raising even during the sandbox period would affect the amount of resources they could devote to meeting regulatory obligations. This could be done on a case-by-case basis to level the playing field for start-ups, since start-ups do not, unlike banks, have significant existing resources to fund the deployment of their FinTech solutions on a broader scale. MAS could issue no-action letters under s 321 of the Securities and Futures Act (Cap. 289) (the "SFA").
and the issuance of exemptions (which can be found in most MAS-administered statutes) were raised for consideration as additional means of support.

- Roundtable participants also proposed that MAS use the $225 million FinTech fund to fund start-ups that are specifically in the Sandbox. Many felt that such a boost in financial resources would assist start-ups in complying fully with regulatory requirements during their initial stages of experimentation. Since the Sandbox application is predicated upon a FinTech facility that is truly innovative and brings value to the Singapore financial system, this objective should be aligned with the raison d’etre for the set-up of the fund.

**Question 2**

- The failure to define or elaborate upon the word, “similar”, in para 5.5(a) of the Consultation Paper caused some concern among participants. Many worried that the failure to define such a critical term could suppress innovation, because the incremental benefits of seemingly “similar” technologies, similar or applications of the same technology could be forfeited. Facebook’s success over Friendster was brought up as an example of how difficult it can be to assess how incremental changes between solutions impact actual take-up rates by the market. Given this, this ground of exclusion from the Sandbox could very well create situations where the first mover effectively locks out all competition from the Sandbox, thereby stifling innovation.

- Many participants also desire more detailed explanations of the level of due diligence expected in verifying the viability of the FinTech solution under para 5.5(b). Some participants were unsure about whether standard testing on the technology (i.e. software, component and functionality) using artificial or historical data would suffice. Other participants pointed out that exhaustive due diligence risks eliminating the need for a Sandbox and, ultimately, defeating the purpose of its implementation.

- MAS states in para 5.5(c) of the Consultation Paper that the Sandbox may not be suitable where the Applicant can reasonably and effectively experiment with the FinTech solution in a laboratory or test environment. The majority of participants request further clarification on the language used, as it seems to contradict the very purpose of the Sandbox - namely, to provide applicants with the opportunity to experiment with FinTech solutions. Retaining this ground.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>of exclusion could well stifle innovation. However, if the phrase, “test environment” means a controlled production environment, it should not be contradictory.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Notwithstanding the confusion over the language used, all participants were of the view that Applicants should be eligible for the Sandbox regardless of their existing testing capabilities. Operating within the Sandbox would allow the Applicant to test its FinTech solution under live market conditions, as well as obtain invaluable clarification on navigating the regulatory landscape. Excluding Applicants on the basis that they may test their FinTech solution in a laboratory or test environment would deprive them of these benefits.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 3</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Participants were of the view that the phrase, “[m]ajor foreseeable risks” in para 6.2(f) should be replaced with “[s]ignificant known risks”. The former phrase signifies conditional (“major”) risks that are highly subjective (“foreseeable”), and is inappropriate in the context of a Sandbox. In contrast, “[s]ignificant known risks” refers to unconditional risks that the individual directly or indirectly knows or has reasonable grounds to believe will be undertaken. Participants agreed that the latter threshold is more realistic and appropriate for start-ups.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Some participants took issue with the requirement of an exit strategy under para 6.2(g). They felt that it is unnecessary as its creation and implementation imposes an undue burden on the individual start-ups. There are also difficulties in scoping the exit strategy, as it is unclear whether he start-up can rely on the regulatory exemptions granted during the sandbox period after exiting. Or whether it will have to comply with the full regulatory framework applicable. Moreover, existing mechanisms under company law such as judicial management or liquidation may in fact be sufficient.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Many participants desired clarification on the criterion for clearly defined test scenarios and outcomes under para 6.2(d). While the comparison of actual outcomes against test outcomes should help to identify defects, such procedural rigidity may obscure potential lessons from the Sandbox (i.e. how FinTech solutions operate in and respond to live market conditions), which could be valuable in refining the solution and business strategies. One suggestion made at the roundtable was that MAS allow FinTech solutions greater</td>
</tr>
</tbody>
</table>
leeway to change their value proposition in accordance with lessons learned from their experiments within the Sandbox. Such flexibility will help start-ups adapt more quickly to new circumstances, as it increases the chances of start-ups pivoting their customers, services and/or products after learning from the market.

**Question 4**

- Participants were unanimously of the view that so long as test outcomes have been achieved, start-ups should be allowed to proceed with deploying the Fintech solution on a broader scale even if they are still unable to fully comply with the relevant regulatory requirements.
- Participants also agreed that the requirements for large-scale deployment of FinTech solutions should be implemented in a manner that takes the unique risk profile of each Applicant into consideration. While most, if not all, start-ups would find it difficult to comply with the full scale of legal and regulatory requirements immediately upon exiting the Sandbox, some will undeniably be in a stronger position than others. Participants propose that MAS should, accordingly, tailor the extent to which legal and regulatory requirements apply to each start-up based on their individual risk profiles. This would help start-ups allocate their limited resources more efficiently. MAS may exercise such risk-based supervision through its broad powers of exemptions and power to issue No Action Letters under s 321 of the SFA.

**Question 5**

- Participants concurred that the power to discontinue Applicants from experimenting in the Sandbox is necessary to discourage Applicants from attempting to use the Sandbox as a means of circumventing legal and regulatory requirements in bad faith. No objections were raised to the four grounds of expulsion in para 7.4.
- Some participants found the threshold under para 7.4(c) for a breach of any condition imposed for the duration of the Sandbox unclear. They urge MAS to incorporate a materiality

---

6 In this context, “pivot” means that the start-up will narrow its focus on customer segments or expand its offering. “Pivot” does not mean that the start-up drastically changes its products or services. The change in product or service must be catalysed by lessons learnt in relation to the start-up’s current offering(s).
test in its assessment of whether the Sandbox should be discontinued where Applicants breach any condition imposed for the duration of the Sandbox. The materiality of the breach should be pegged at a higher threshold than it is currently, as unexpected deviations are inherent in experimentation.

- Participants felt that MAS should provide for avenues for remediation. The “opportunity to be heard” avenue and the appeals processes set out in, respectively, s 316 and Part XIV of the SFA were raised as possible options. Guidance on how Applicants whose Sandbox periods are discontinued may apply to re-enter the Sandbox would also be welcome, e.g. whether simply amending the business plan would be sufficient.

**Question 6**

- Some participants suggested that in order to minimise delays in experimenting with and rolling out FinTech solutions, and thereby encourage even more innovation, Applicants should be allowed immediate, automatic entrance into the Sandbox while waiting for their applications to be processed. Strict fundamental limitations (e.g., on AML/KYC) and limited regulatory requirements would be imposed. Any breach of those limitations and requirements would result in the immediate discontinuation of the Sandbox period.

- Several participants request a more definite time frame for the evaluation stage of the Sandbox application process. In its current proposed form, the duration of the evaluation stage depends on the complexity of a FinTech solution and the specific legal and regulatory requirements involved. However, the term, “complexity” is subjective. Moreover, it is difficult to ascertain T1 from the outset. These two factors generate much uncertainty, and will hamper the ability of start-ups to access their target market quickly.

**Any other comments**

- A participant proposed that the applicable legal and regulatory requirements should draw a distinction between business-to-business and business-to-consumer Applicants, as they operate differently.
their full extent during the sandbox period. It is our belief that detailing out specific requirements is a prudent and clear approach to designing a framework. This approach provides clarity to the wider financial market, enabling innovative FinTech companies to discern, at an early stage, the areas of regulation on which to focus their efforts.

- We are in agreement with the list of “To Maintain” regulations, specifically:
  - Confidentiality of consumer information/data
  - Honesty/integrity (consumer protection)
  - Handling of assets by intermediaries
  - AML/CTF

- We find the above requirements are all crucial to maintain trust, safety and security of financial products, even those in an early stage of adoption.

- Ripple supports MAS’s proposal to relax certain regulatory requirements, especially those pertaining to the following three areas: financial soundness, technology risk standards, and governance.

- Financial requirements such as cash balances, liquid assets, and paid-up capitals pose a challenge to startups and small companies, primary drivers of innovation. A history of audited financial statements, a requirement in many countries for technology service providers, is not feasible for new companies. By temporarily relaxing these financial soundness expectations within the Sandbox, MAS will support innovation in a balanced, prudent way.

- We support MAS’s proposal to relax technology risk standards and governance. Relaxing board composition requirements is appropriate for the Sandbox, as early stage companies are in the process of forming their board and governance committees as they grow. While risk controls and governance may not be fully developed for new companies, MAS can foster sound governance for companies in the Sandbox by having participants describe their plans for building out board members and advisors, as well as instituting accountability measures and controls.

- An important, yet sometimes undervalued, component of the Sandbox is the environment that is established. By setting a flexible, open tone, MAS will foster fruitful conversations with...
participants. Yet, a rigid or fearful tone may drive potential participants away from the Sandbox and potentially Singapore. To foster the proper tone, we encourage MAS to explicitly state that enforcement actions will not occur for Sandbox participants that meet the terms of participation and agreed upon regulatory standards. Providing this clarity will remove uncertainty and ultimately foster an open, communicative environment for innovation.

- Today, we have seen an increasing number of pilot and sandbox approaches being developed and honed. As financial services grow global in scope, and as FinTech scales to match that global reach, we believe that international coordination among sandboxes would further foster innovation. Disjointed approaches in creating regulatory frameworks, worldwide, will ultimately create added complexity and confusion for FinTech companies seeking to adhere to these standards.

- We commend MAS for demonstrating leadership in this coordination effort through their recent partnership with the Financial Conduct Authority (FCA) in the United Kingdom. To build on this effort, MAS and other global regulators may consider how they coordinate their sandbox approaches to best enable global innovation.

**Question 2**

- In response to circumstance (b), a critical part of externally validating a solution, particularly in financial services, is illustrating the regulatory treatment of a product. Oftentimes, regulatory clarity cannot be provided immediately for truly innovative products that may not squarely fit within established frameworks. Such uncertainty makes it challenging to fully validate a product externally.

- We believe that MAS’ regulatory Sandbox is an excellent approach to reduce the varying degrees of uncertainty in innovative financial products. A large portion of due diligence for a financial institution involves ensuring regulatory compliance. Thus, a Sandbox would prove a useful solution for institutions interested in revolutionary technologies like blockchain. This supervised, exploratory period would permit regulators to work in tandem with banks during new product integration, ultimately allowing them to conduct robust due diligence throughout. We urge MAS to be open and flexible with products that may not have been fully validated
• In response to circumstance (d), we are in clear agreement with the MAS. The Sandbox should be strictly open to financial technology companies committed to working in Singapore.

**Question 3**

• We believe that the criteria detailed in ANNEX B are thoughtful and applicable to financial technology companies, and thus, are appropriate for assessing a proposal’s suitability.

• We find it encouraging that many of these criteria include topics and efforts that small, yet maturing, companies should be incorporating into their long term vision, such as risk documentation, exit plan creation, and scaling strategization.

**Question 4**

• In regards to Para 7.2:
  
  o The process of FinTech companies developing and adapting their products and subsequently gathering feedback from customers often varies in scope and duration. Due to the iterative nature of innovation, a Sandbox extension is likely critical for the success of some products. An extension would not only benefit growing FinTech companies, but would simultaneously enable regulators to assess the type of feedback these companies are receiving and the way in which they are addressing such feedback.

  o Flexibility in the extension is important to consider and, ultimately, will result in a more positive outcome for both the company and regulator. A strict deadline would prove limiting, particularly if a company is showing an active effort to improve upon their product. For this reason, we strongly urge great flexibility around the extension policy, with the primary exception being a company that does not show the level of expected commitment or cooperation.

• In regards to Para 7.3:
  
  o If a truly innovative product cannot meet certain regulatory or legal requirements because the requirements are outdated or were not designed with
such a technology in mind, MAS should consider utilizing the sandbox period to recommend updates be made to regulation. This is particularly the case for new technology, as many laws and standards were created prior to the advent of these new tools.

- For example, in some countries, security trading requires paper contracts, limiting the adoption of digital tools. It is our belief that, if outdated, laws should be amended so that new, more efficient technology can be adopted. Yet, updates to laws and regulations should be limited to cases where participants are acting in good faith with the better interest of customers and financial systems in mind.

- If a company is acting nefariously or cannot meet what are deemed to be appropriate regulatory guidelines after exiting the Sandbox, the company should not be allowed in the market.

**Question 5**
- We believe that points in this section are properly framed and agree with the proposal.

**Question 6**
- We urge the MAS to exercise great flexibility throughout the “In-Progress” Stage.” During this phase, many complex products will arise and, despite their complexity, could have a significant impact on commerce and financial inclusion.

- We encourage MAS to allot as much time to this stage as is necessary to witness the positive impact of these products. The process of innovation is often nonlinear and not always clearly defined. Factors such as regulatory feedback, customer feedback, and advances in technology can occur rapidly, altering the design yet improving the impact of the product.

- For instance, in only a year and a half the financial industry has gone through three iterations of financial technologies. First, there was the advent of virtual currency, then the shift to blockchain technologies, followed by the development of open protocols. The rapid pace of change in the financial sector calls for ample time to fully realize the innovations taking place.

- Additionally, in an effort to remain open and flexible, we urge MAS to provide clarity around reasons an application may

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>such a technology in mind, MAS should consider utilizing the sandbox period to recommend updates be made to regulation. This is particularly the case for new technology, as many laws and standards were created prior to the advent of these new tools.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For example, in some countries, security trading requires paper contracts, limiting the adoption of digital tools. It is our belief that, if outdated, laws should be amended so that new, more efficient technology can be adopted. Yet, updates to laws and regulations should be limited to cases where participants are acting in good faith with the better interest of customers and financial systems in mind.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If a company is acting nefariously or cannot meet what are deemed to be appropriate regulatory guidelines after exiting the Sandbox, the company should not be allowed in the market.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Question 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- We believe that points in this section are properly framed and agree with the proposal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Question 6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- We urge the MAS to exercise great flexibility throughout the “In-Progress” Stage.” During this phase, many complex products will arise and, despite their complexity, could have a significant impact on commerce and financial inclusion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- We encourage MAS to allot as much time to this stage as is necessary to witness the positive impact of these products. The process of innovation is often nonlinear and not always clearly defined. Factors such as regulatory feedback, customer feedback, and advances in technology can occur rapidly, altering the design yet improving the impact of the product.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- For instance, in only a year and a half the financial industry has gone through three iterations of financial technologies. First, there was the advent of virtual currency, then the shift to blockchain technologies, followed by the development of open protocols. The rapid pace of change in the financial sector calls for ample time to fully realize the innovations taking place.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Additionally, in an effort to remain open and flexible, we urge MAS to provide clarity around reasons an application may</td>
</tr>
</tbody>
</table>

Monetary Authority of Singapore
S/N | Respondent | Full Responses from Respondent
---|------------|-------------------------------------------------------------
22 | SAP Asia Pte Ltd |  

**Any other comments**

- For small FinTech companies and startups, time is a critically scarce resource. Daily business routines are often filled with unexpected setbacks that result in loss of valuable time. When regulators have conflicting views or when policies and procedures are not clearly defined, it often takes FinTech companies significant time to navigate these discrepancies. Regulators’ actions that alleviate uncertainty, such as this proposed Sandbox, are met with great applause and appreciation from the FinTech community.

- The proposed Sandbox is a constructive way for MAS to work alongside FinTech companies in an effort to better understand their models. This effort and continuous involvement could lead to shorter approval times and alleviate uncertainty. Through this approach, companies could see increased efficiency, ultimately spending less time clarifying regulatory questions.

- The result will be more innovative and safe products coming to market. We anticipate that the design and balance of the MAS proposal will result in a wave of new innovative products. The MAS proposal may be held as an example for other countries looking to spur innovation in a prudent, responsible manner.

- In conclusion, we would like to applaud MAS for an exemplary job in developing and outlining a clear framework for the proposed Sandbox. We find the plan to be well thought out, balancing the needs of both innovators and regulators, and we are fully supportive of the effort to forge a strong partnership between innovators and regulators.

Question 1

- As a technology provider SAP’s primary area of interest is provision of compliant and compatible technical applications and infrastructure components to support development and deployment of innovative solutions. SAP views cloud based platforms as a key innovation driver and equaliser. Both incumbent (licensed) FI's and newer unlicensed FinTech
players can take advantage of such cloud platforms for technology to support their business product or service innovation. There are three main areas of comment:

- Technical Implementation Guidelines: SAP would view further guidelines on the technical implementation of the sandbox concept as a key form of support to encourage more experimentation and better define where the boundary lines for technology may lie. These guidelines may be based from existing basis, such as TRM, but then tailored to suit particular circumstance of sandbox.

- Multi-Tenancy: Additionally a viewpoint from the MAS on the appropriateness of multi-tenanted hosting as it pertains to the sandbox environment would be welcomed and would provide valuable regulatory guidance to startups, FI's and technology suppliers. If this can be agreed upon, SAP views this as further encouraging technology companies to provide platform-level facilities to further drive support - for startups in particular.

- Data Support: Turning inward to MAS itself, SAP contends that there may be data which is under the authority of the regulator and could be provided and used in a specified fashion within the sandbox environment. We consider this to be another possible avenue of support that could be provided within the sandbox environment.

**Question 2**

- Given the suggestions in para 5.5, we infer that the product has passed initial functional and non-functional tests, and that a projected business case and viability analysis has been performed. The sandbox is not considered as a suitable place to experiment with technology per-se, rather a more suitable place to experiment with financial products or services to see if there is a marketplace in Singapore or abroad for such products/services.

- The para 5.3 articulates a principle by which "...the consequence of failure can be contained". We believe further articulation on the consequence of failure or non-procedure to a full blown production environment - specifically what impact that failure has on a customer of the product/service in question, and what rights are afforded the customer in the event of a failure.

- SAP considers that lack of an agreement to remediate the relaxed requirements against the "normal" regulations (or
RESPONSE TO FEEDBACK RECEIVED ON
FINTECH REGULATORY SANDBOX GUIDELINES

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>path to relaxation of &quot;normal&quot; regulation by MAS) would also be a circumstance where this sandbox may not be suitable.</td>
</tr>
</tbody>
</table>

**Question 3**

- The criteria allow for proposals that are "technologically innovative or applied in an innovative way". SAP asserts that the use of existing technologies or platforms can be applied in an innovative way and that this should be taken into account when assessing the eligibility for sandbox deployment for the given FinTech solution.

- Where a technology vendor is performing hosting on its particular cloud platform, and specifically multi-tenanted hosting, the exit and transition strategy must cover the following as part of the wider exit/transition strategy:
  - Technical migration
  - Upgraded disaster recovery capabilities and business continuity plans
  - Data handling and hosting considerations.

**Question 4**

- Pre-Defined Agreement: Expanding on our comment contained within Question 2, there should be an agreement established on compliance when entering the sandbox (to either remediate the FinTech solution to the compliance guide, or relax the rule to reflect changing risk assessment, growth in understanding and technical capabilities. SAP considers that this may disadvantage older solutions that were established prior to the use of the new enabling technology, however this is not cause to stifle the continuous assessment of suitability of the regulations in light of updated technological or banking product innovations.

- Retrospectivity: could be one option of addressing the upgraded legal and regulatory requirements - SAP considers it could actually encourage innovation for incumbent FI's in particular - the option for incumbents being to remediate an old technology in light of new regulation; or reposition on newer technology in order to maintain market relevance and competitive advantage.

- Turning that statement around, the impact of forcing existing legal and regulatory requirements on new innovations is one
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>of the key drivers for the sandbox in the first place (ref. para 1.4).</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 5</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SAP considers that the current proposed circumstances for discontinuation are adequate.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 6</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SAP notes the proposed timeline described in the paper.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The pace of innovation, particularly at the underlying technology layer, may necessitate that a technological innovation, once appropriately tested and proven, could be moved through into a production environment quite quickly.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• It is our suggestion that there is further granularity that could be applied to the regulatory approval process, specifically as it applies to technology-only updates, to facilitate the pace-of-change required for fast-moving FinTech innovations.</td>
</tr>
<tr>
<td>23</td>
<td>Singtel</td>
<td><strong>Question 1</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clarification – the sandbox does not necessary will be deployed and operated by the Applicant. It could be with a outsourced partner or a cloud services provider</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To accelerate the innovation/experimentation, MAS can provide predefined/pre-created community infrastructure (MAS financial cloud) (a Sandbox) that the applicants can use to create/develop the necessary application/system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Annex A – under the “Possible to relax” section include the outsourcing guidelines as one of the areas to relax</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 2</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Situations where the fintech solution is already in customer trials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Situation where the fintech solution is connected to the core systems of the FSI</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 3</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The FSI is building some unique offerings/capabilities as part of the fintech solution</td>
</tr>
</tbody>
</table>
|     |            | • Annex B - 6.2a, b – provide the list of partners (outsources, cloud service providers, other FSIs) that the applicant will be
### Full Responses from Respondent

- working with for the sandbox with a clear definition of roles and responsibilities (6)

**Question 4**

- There should be a requirements in the sandbox application to show how the sandbox solution will comply with the MAS regulations when deployed in production. What steps will the applicant take to get to compliance before going in production

**Question 5**

- Scenario where the solution would take much longer time than anticipated duration before it could be fully developed
- A similar solution was launched in the market that does not require the applicants solution

**Question 6**

- It would be good to define T1 as well..otherwise it will take forever
- There should be a stage where the applicant has the opportunity to present the solution and also provide clarification to any questions that MAS has on the proposal.

---

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>Standard Chartered Bank, Singapore</td>
<td>Requested for all comments to be kept confidential.</td>
</tr>
</tbody>
</table>

**Question 1**

- We understand the proposed legal and regulatory requirements are targeted for FinTech companies, we suggest the MAS to also consider relaxing requirements such as technology risk management guidelines and outsourcing guidelines for financial institutions and banks (regulated by the MAS) in order to encourage similar level of innovation and create a level playing field for financial institutions and FinTech companies.

**Question 3**

- Response towards Para 6.2. e, f, g:
  - We suggest that: 1) the Applicants should back up data sufficiently in the sandbox environment so that any case
of data corruption would not interfere with their normal critical business functions; and 2) there should be a consideration criteria to notify the client data owner in case a security incident happens around the Sandbox.

**Question 5**

- Response towards 7.4.d:
  - The data removal from the testing environment should be ensured after exiting from the Sandbox

**Any other comments**

<table>
<thead>
<tr>
<th>Para</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paragraph 4 – Target Audience</td>
<td>Q: In relation to target audience, would the MAS be prepared to consider the application for a Regulatory Sandbox if it relates to a joint venture of a Singapore Applicant with an overseas entity (regulated or unregulated)?</td>
</tr>
<tr>
<td>Paragraph 5 – Objective and Principles of the Sandbox</td>
<td>Q: In relation to the proposed circumstances where the Sandbox may not be suitable: a) “The FinTech solution is considered to be similar to those that are already being offered in Singapore” – would this include existing FinTech solutions within a Regulatory Sandbox environment?; and b) Will there be a “searchable and published list of solutions” under the Regulatory Sandbox?</td>
</tr>
</tbody>
</table>
| Paragraph 6 – Sandbox Evaluation Criteria | Q1: With regards to paragraph 6.2(a), will the MAS be providing guidance on the factors to be taken into account while considering whether a FinTech solution is “innovative” or is “applied in an innovative way”?  
Q2: On paragraph 6.2(b), would the MAS be providing further guidance on what constitutes a significant problem or issue?  
Q3: Would “implementation of the FinTech solution across affiliates/subsidiaries of the Applicant in Singapore”, or “an increase in the number of clients for whom the FinTech solution would be rolled out, after exiting the Sandbox”, count towards meeting the criteria under paragraph 6.2(c) of the Consultation Paper? |
<p>| Paragraph 7 – Exiting | Q1: Under paragraph 7.2 of the Consultation Paper, the MAS has mentioned that an Applicant may seek an extension of the Sandbox period to make... |</p>
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>from the Sandbox</td>
<td>changes to a FinTech solution, after considering customer feedback, or to rectify non-critical flaws; We would like to get clarification that whether the MAS would consider an extension of the Sandbox period for the purpose of resolving critical flaw(s) if any.</td>
</tr>
<tr>
<td>Q2:</td>
<td>On paragraph 7.3, what is the expected process in which to certify that the MAS and Applicant are satisfied with the intended test outcomes under the Sandbox?</td>
<td></td>
</tr>
<tr>
<td>Q3:</td>
<td>What are the MAS’s roles and expectations during the process of exiting and transiting out of the Sandbox?</td>
<td></td>
</tr>
<tr>
<td>Paragraph 8 – Application and Approval Process; Annex B – Application template for the FinTech Regulatory Sandbox</td>
<td>Q1: Does an Applicant need to obtain express consent from the impacted clients before commencing a Sandbox approved by the MAS, or would an implied consent be sufficient?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q2: Does the MAS require any contractual agreements to be put in place with impacted clients before commencing a Sandbox approved by the MAS?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q3: What is the expectation of the extent of disclosure that the Applicant is required to make to the impacted clients for the operation of a Sandbox?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q4: What is the estimated timeframe between the Evaluation Stage and In-Progress Stage, whereby Sandbox application is approved?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q5: What are the circumstances whereby the applicant is permitted to make adjustments to the proposal, and what are the examples of adjustments that the applicant is permitted to make?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q6: Are further adjustments to the FinTech solution allowed, following an exit from the Sandbox?</td>
<td></td>
</tr>
</tbody>
</table>

- In general, we support the approach of a regulatory sandbox, however, there are some key considerations:
  - The “sandbox” should be designed to create a “safe space” in which businesses – both licensed and unlicensed firms of all sizes – can test innovative products, services, business models and delivery mechanisms in a live environment without incurring
normal regulatory burdens using a principles-based approach through targeted experimentation;

- Promotion of common partnerships by the MAS will encourage FinTech innovators to work with licensed firms and other institutions that are looking to innovate, especially smaller institutions that may not have the scale or resources to be on the cutting edge of innovation; and

- The MAS could further promote innovation by sharing best practices in a timely and regular basis through the development of an online and regularly updated catalogue of MAS-selected innovative approaches.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
</table>
| 26  | StreetSine Technology Group | **Question 1**  
- Recommendation One: expand the Sandbox to facilitate technology adoption.  
- Specifically, develop a communication protocol between non-MAS regulated technology firms and Chief FinTech Officer. This channel would allow technology firms to present existing technology and seek MAS clarification on how the technology can coexist with existing regulation.  
- The current protocol requires non-MAS regulated technology firms to go through the Financial Institutions that are not yet clients to present disruptive technology solutions to MAS. My experience is that FI’s go to their MAS account managers who do not have the authority to assess new solutions vis-à-vis existing regulations.  

**Question 2**  
- Recommendation Two: expand the Sandbox concept by eliminating 5.5.a–5.5c.  
- My rationale for recommending the elimination of 5.5b and 5.5c is that they could stifle Cloud innovation. Most software innovation today requires interaction with clients and consumers made up of many different segments. As such, when technologists design a new application, the only way to test it fully is to put it out on the Internet and into smart phones and tablets. Yes, the technologist will do his or her best to build the perfect application but it is just theoretical until it goes live to the general public.  
- I would suggest removing 5.5.a as there are several FinTech solutions already offered in Singapore that have low take-up
because potential clients do not know whether or not the technology is compliant with MAS regulation.

**Question 3**

- Recommendation Three: Streamline appendix B.
- Currently Annex B requires an applicant to furnish information on its business strategy, financial standing, etc. Most innovation comes from small companies. I would suggest that this information is unnecessary for this exercise and could be counterproductive in that it implicitly favours big companies over small ones.
- There is an old adage in Silicon Valley:
  - The most important aspect of the “sandbox” exercise is whether technology enhances value for customers, increases efficiency, improves risk management, strengthens market governance, and creates new opportunities for the financial services industry. If a one-man app designer operating out of his garage can demonstrate that his technology has a chance to do that, then his business plan and financing are supercilious.

**Question 4**

- Recommendation Four: Establish a protocol for revising regulation to account for new technology.
- If MAS and the Applicant find themselves in the situation contemplated in 7.3, I would suggest it is already too late. While one outcome of the “sandbox” is that the new technology will now comply with existing regulations, another outcome is that the new technology has rendered the existing regulation obsolete. As a result, I would recommend establishing a protocol for revising regulation that will operate at the same time and in parallel to the various “sandbox” projects.

**Question 6**

- Per my recommendation 3, I submit that the application process can be shortened. Per my recommendation One and Four, I suggest that the more important part of the collaboration occurs after the application, which includes the
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>technology adoption phase and an MAS review of how regulations should be adjusted in light of the new technology.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• To shorten the approval process and encourage more experimentation, MAS can take the attitude that all applications are auto-approved as long as</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o it does not contravene a pre-determined set of core principles, not unlike those stated in “To Maintain” requirements in ANNEX A, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o it’s impact to the public is limited by the pre-determined scale of the deployment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• This is similar to taking the attitude that a driver can do a U-Turn as long there’s not a no U-Turn sign, instead of the more restrictive attitude that a driver can only U-Turn in junctions with a U-Turn sign.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Any other comments</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Para 5.5 a-c – See feedback in Question 2 section.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appendix B – See feedback in Question 2 section.</td>
</tr>
</tbody>
</table>

<p>| 27  | The Bank of Tokyo-Mitsubishi UFJ, Ltd., Singapore Branch | <strong>Question 4</strong> |
|     | | • We are of the view that should the Applicant not be able to fully comply with the relevant legal and regulatory requirements, the Applicant should be allowed to proceed, provided that the non-compliance is insignificant with adequate countermeasures built in. |
|     | | <strong>Question 5</strong> |
|     | | • We would like to clarify if the FinTech Solution will be discontinued when it is discovered to be undermining Singapore regulation or breaching any Singapore Law (e.g. PDPA). |
|     | | <strong>Question 6</strong> |
|     | | • We would like to clarify if the application/usage for the Fintech Regulatory Sandbox will incur any administrative charges/fees. |
|     | | <strong>Any other comments</strong> |
|     | | Para 4.1 | Feedback |
|     | | We would like to clarify if non-finance intention (e.g. marketing and big data harvesting) for developing FinTech |</p>
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Solution would be covered under “provide financial products or services, or improve business process”.</td>
</tr>
<tr>
<td>7.3</td>
<td></td>
<td>Under Para 7.3, it is stated that at the end of the Sandbox period, the Applicant would have to fully comply with the relevant legal and regulatory requirements if they wish to deploy the FinTech solution on a broader scale. The Bank would like to seek confirmation in the scenario whereby the FinTech solution is to be continued to be deployed at the end of the Sandbox period to the same or smaller scale, does the Applicant have to fully comply with all relevant legal and regulatory requirements before the end of the Sandbox period?</td>
</tr>
<tr>
<td></td>
<td>Annex A</td>
<td>We suggest the Authority to further clarify that the existing Banks that are regulated under the Banking Act and other regulatory requirements are able to seek exemptions on the legal and regulatory requirements as set out in Annex A, whenever applicable.</td>
</tr>
<tr>
<td></td>
<td>Annex A</td>
<td>We propose to include Outsourcing Guidelines in one of the Examples of “Possible to Relax” Requirements, as some of the start-up companies involved in the FinTech solution that the banks partner with may be new companies with not much track record, lack of financial soundness and compliance and etc. With the relaxation of this requirements e.g. due diligence on vendors, the bank may be able to, without too much caution/concerns, outsource the system development tasks to these new start-up companies with good solutions.</td>
</tr>
<tr>
<td></td>
<td>Annex B</td>
<td>We would like to clarify if there is any limit on the number of customers involved and/or quantifiable limits such as transaction thresholds or cash holding limits for deploying the Sandbox.</td>
</tr>
</tbody>
</table>
| 28  | tryb Partners LLP | **Question 1**  
  - General comments  
    - The MAS Consultation Paper on FinTech Regulatory Sandbox Guidelines specifies that the Sandbox ‘would be deployed and operated by the Applicant’. This assumes that Applicants have sufficient knowledge of financial services in order to proactively assess and comment on the relevance of various legal and regulatory requirements. |
This would not be an issue for incumbent Financial Institutions ("FIs"), technology providers and business services providers. However, tryb has observed that most FinTech startups in Singapore and South East Asia are founded by entrepreneurs who have limited experience in financial services. As such, they are unaware of requirements.

These entrepreneurs will need assistance to bridge their business model and technology offering with existing legal and regulatory requirements prescribed by MAS.

- **Suggestions:**
  - Proactive education and outreach. MAS could adopt a more proactive approach to educating entrepreneurs and helping them understand what legal and regulatory requirements are applicable to their business. If an objective of the Sandbox approach is to nurture FinTech in Singapore then there should be a correspondingly proactive approach from MAS, rather than complete reliance on the Applicant. This includes general guidance on:
    - Defined legal terms and industry standard terminology used in the financial services sector (as opposed to undefined plain English);
    - General education on the need for prudential risk management, fiduciary duty, and corporate governance, amongst other similar concepts.
  - Alleviating financial costs of compliance. MAS could reduce or defray the cost of compliance for Sandbox participants through either grants, subsidies, tax breaks, or the provision of free advice on legal and compliance matters.
    - MAS could also support Sandbox participants in applying for the various subsidies and grants are provided by government and non-governmental bodies in Singapore.
  - Assisting with the human cost of compliance. MAS could also assist with human resources, by linking high quality human resources (developers, sales, and legal resources) with startups who are often resource starved. MAS could also look to sponsor internship programs with local universities. This would free up bandwidth for
entreprenuers to focus on legal and regulatory compliance issues.

- Assisting with business development. Commercialisation of FinTech solutions would allow Sandbox participants to cover costs of compliance of their own accord. MAS could provide assistance with business development to Sandbox participants by linking emerging FinTech solutions with potential customers or clients and, importantly, pushing for commercialisation. This can be done in a traditional introduction manner or an online portal sponsored by MAS that would feature solutions that can add value to their existing businesses.

### Question 2
- General comments
  - MAS’ defines ‘FinTech solution’ as a new financial product, service, or process. However, tryb has observed that most FinTech startups in Singapore are less focused on new intellectual property and instead looking to innovate from an efficiency standpoint - by using technology to replace people-driven processes.

  - Most FinTech startups want to apply technology to existing products, services and processes. They develop technologies to increase reach (financial inclusion) or reduce inefficiencies (financial transformation) within the existing financial services ecosystem. This can be in the form of product distribution, transfer of balances and risk management, among others.

  - Accordingly, FinTech startups have two objectives, either:
    - To become technology vendors that are commercially sustainable, by deploying their technologies with incumbents; or
    - To become new incumbents that essentially offer the same financial products and services but with the advantage of using technology to replace high cost, people-heavy processes.

  - Both of these outcomes are known business models. In the first category, technology vendors (e.g. Microsoft, Oracle, Markit) are typically not subject to legal and regulatory requirements. Accordingly, such FinTech players would not require the Sandbox.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>o FinTech players in the second category however would require the Sandbox.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Guidance as to what is considered ‘similar’ in Para 5.5 (a).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Most FinTech startups in Singapore are founded by entrepreneurs with limited experience in financial services and also face the challenge of having limited resources, they are unable to contextualise the nature and extent to which “due diligence” via “laboratory” testing or “external validation” would be required.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Hence, if the FinTech startup is required to define their own Sandbox requirements, tryb would suggest that MAS proactively guide and educate to entrepreneurs as to examples of what ‘similar’ might refer to. For example:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Crowdfunding. A crowdfunding platform is essentially a brokerage that operates a Request for Quote (RFQ) system for capital raising. This is a service which is already offered by licensed: (a) Introducing Brokers and (b) Advisors on Corporate Finance (as defined under the Securities and Futures Act).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Robo-advisory, which is essentially automated financial advisory. This can range from simple product recommendation, to automated portfolio construction and execution of transactions. On one end of the scale, a robo-advisor recommending approved retail products is similar to iFAST/FundSuperMart and the existing network of licensed Financial Advisors. On the other end of the scale, a robo-advisor is an electronic brokerage offering automated portfolio construction and risk management tools.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Blockchain for payments and settlement. One application of a blockchain or cryptocurrency is for payment and settlements. This is simply an alternative service that is layered on top of existing interbank settlement infrastructure, such as FAST in Singapore or SWIFT for international transfers. In such a case, the FinTech should arguably be able to demonstrate compliance with existing Real Time Gross Settlement (&quot;RTGS&quot;) standards as the RTGS mechanism exists to safeguard financial stability in the banking sector.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o In the examples above, the FinTech substitutes technology for people, i.e. a Banking, Capital Markets</td>
<td></td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Services or Financial Advisory licence holder. This should not make the technology (or the persons behind coding the technology) any less subject to necessary fiduciary requirements, although capital requirements might be reduced if necessary risks (e.g. settlement and matching risk) can be offset via technology.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Guidelines on what would be considered “sufficient due diligence”.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Similar to the above, startups with minimal understand of financial services would require more proactive guidance from MAS.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Trusted individuals and institutions. MAS could designate specific institutions or individuals that it trusts as certified validators of FinTech solutions. For example, tryb could play such a role alongside other institutions who would not have any conflict of interest (so as to disadvantage a startup) such as technology incubators, accelerators and investment funds.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o However, care should be taken that these institutions or individuals do not act as Sandbox ‘gatekeepers’. Those who already have a stake in the company as investors may be another effective option. The reputational risk associated with validating FinTech solutions could incentivize institutions of individuals to work only with companies that show promise, effectively providing a level of quality control for a Sandbox.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Trusted environments. In terms of “laboratory environments”, it may be helpful to designate specific venues and/or technology infrastructure services as “laboratories”. This would also help MAS define what it means by an experiment carried out “reasonably and effectively”.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 3</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• General Comments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Potential applicants need to have access to a consultation process prior to submitting an application is made for a Sandbox. A pre-evaluation process would help to determine if the potential applicant:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Needs to apply;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Has sufficient knowledge to identify if and how its FinTech Solution is differentiated in order to propose the boundaries of its own Sandbox; and if</td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Has sufficient resources to adequately complete Annex B to MAS’ satisfaction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o tryb believes that, in general, the evaluation criteria are necessary. However, suitability would vary depending on the type of institutions - resource constrained startup, or incumbent with strong financial capability and sufficient staffing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o tryb would reiterate that MAS should provide guidance as to what is considered ‘similar’ in Para 5.5 (a); it should not be incumbent on an inexperienced startup to know what it does not know.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Suggestions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Pre-application consultation process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Determines suitability and need for a Sandbox;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Provides guidance to startups that have a limited overview of the financial services landscape and existing solutions; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Helps applicants to define (i) a suitable Sandbox, and (ii) the “test scenarios and outcomes” required in defining a Sandbox.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Have third parties involved in the consultation process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Law firms or potential investors (like tryb) could play an advisory role;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ MAS officers could be paired up with applicants to provide feedback on suitability, either in person or through an online portal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Different evaluation criteria for startups and incumbents with resources different types of applicants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Criteria Annex B that an applicant would incur significant costs in order to complete.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Annex B.2.3 and Annex B.2.4: This would require legal or compliance consultation, or that the applicant have a sufficient understanding of financial services regulation in Singapore. A startup comprised of university students would not have the sufficient knowledge or the financial resources to engage adequate counsel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Annex B. 3. Para 6.2c.i: Market scoping to this extent typically incurs very high costs, especially if overseas</td>
</tr>
</tbody>
</table>
market sizing and competitive analysis is required. An applicant with limited resources would not have the financial strength to engage advisors or consultants.

- Annex B.3.Para 6.2d and 6.2e.i: Testing scenarios aimed at removing uncertainty requires adequate knowledge of the relevant regulatory, technology or business landscape. A FinTech startup with limited resources would not have the financial strength to engage advisors or consultants in this respect.

- Annex B Para 6.2f and 6.2g.i: Quantifying the potential impact of a proposal is a complicated process that requires a deep level of knowledge and understanding.

**Question 4**

- General comments:
  - Typically, an applicant would apply for a Sandbox duration that matches how long they think they would need to commercialise the product and be able to meet the full costs of compliance. This makes the duration of a sandbox highly dependent on successful business development.
  
  - Without successful deployment and negotiation of a profitable contract, a company would not be able to meet the full costs of compliance. This would, even in the case of high potential technology, lead to repeated extensions until the Fintech Solution can be sustainably commercialised.
  
  - Hence, this problem is one of helping applicants scale in order to be able to compete with incumbents on their own. This means that they need help with commercialisation, having sufficient financial resources to meet requirements, and lowering overall costs.

- Increasing revenue: MAS assists with business development
  - One of the criteria that a Fintech solution needs to demonstrate is a proven track record in a “production environment”.
  
  - In many cases, startups are invited to show Proof of Concept (POC) with a view to possibly deploying into a production environment.
  
  - Even after a successful POC, a technology takes time to be deployed - if at all. Until there is a clear revenue

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
stream, a startup would not be able to afford the costs of full compliance - despite acquiring a successful “track record” in a “production environment”.

- MAS could itself, or through advisors, proactively help a startup to negotiate a profitable business contract so it can afford the full costs of compliance.

**Increasing financial capital:** MAS helps matching investors to Fintech solutions.

- tryb believes that Singapore should become a financial technology hub as this would strengthen Singapore’s position as a global financial centre. Hence, it is necessary that high potential fintech solutions have access to sufficient capital that would allow them to meet the increased costs of compliance upon exiting the Sandbox. This would level the playing field between startups, and incumbent technology providers or FIs with strong balance sheets.

- The MAS FinTech & Innovation Group could help match capital to potential as this would give startups more time to scale to commercial sustainability. This can be done via a simple online portal, informal introductions, or in collaboration with existing incubators and investor groups such as tryb.

- **Tax benefits.** Startups with no backing from incumbents could also be given tax benefits to help ‘level the playing field’.

### Question 5

- **General Comments:** In order to understand the circumstances where the FinTech solution will be discontinued, it would be advantageous to applicants to have clarity on the following points.

  - Definition of “discontinued”. Para 7.4 implies that the startup company would be forcibly shut down, or that an entrepreneur would be somehow barred from continuing to develop technology in his or her own personal time.

  - Startups would be discouraged from making applications in the first place if they “will be discontinued” should they decide to exit the Sandbox at their own discretion (Para 7.4.d).
### S/N | Respondent | Full Responses from Respondent
--- | --- | ---
- | - | -
29 | Vanguard Investments Singapore Pte Ltd | The enforcement mechanism by which a FinTech solution would be “discontinued”, be it under an existing body of legislation or via contract (under the Application).  
- | | The penalties should a “discontinued” FinTech, having exited the Sandbox, continue to pursue technological development without seeking investors or clients.  
- | | What is considered a “critical flaw” and how to define “reasonably resolved”.  
- | | Outlining or give examples of specific circumstances under which the duration a sandbox would not be extended if it can be “reasonably resolved”.

**Question 6**
- The time it takes to evaluate a FinTech solution is naturally dependent on the complexity of the solution.
- Pre-application consultation. This would help applicants determine which regulatory requirements are applicable and a Sandbox is even required.
- Startup applicants are resource constrained and faster feedback. The 21 working days period (a calendar month) between Application and Evaluation is a lengthy one given many startups only have between 4-6 months of working capital.
- As startups are resource constrained and might be in the process of raising capital -- something which might be dependent on a successful Sandbox application -- it would be helpful for MAS to define more granular milestones or have a quicker turnaround. This would allow startups in the process of raising capital to provide progress more frequent updates to potential investors.
- Online submission with live progress tracking, with a connection to the review officer(s) is one way the application process could be made clearer and smoother.

---

29 | Vanguard Investments Singapore Pte Ltd | Requested for all comments to be kept confidential.

30 | Respondent A | **Question 1**
If MAS could facilitate or even spearhead certain FI-wide collaborative type of Sandbox experimentations and invite FIs to participate and contribute, this could potentially lead to certain Fintech adoption that will otherwise difficult to be achieved by any individual FI or a small group of FIs. One such example of experimentations would be the use of Blockchain as a secured platform for inter-company transactions.

**Question 3**

While MAS’ assessment of Fintech applications is important, it is equally important that the application and assessment processes should not be overly rigid and stringent to the point that FI’s views of possibility of adoption is practically impossible and that leads to eventual abandonment of any industry innovation. The time is right for Singapore FI to gain a worldwide leadership position in Fintech innovation and this is the very checkpoint that will help propel it or break it.

**Question 4**

Some Fintech solutions could require changes to legal and regulatory requirements. We are of the view that MAS should also play a role to evaluate if the legal and regulatory frameworks can be altered to suit certain Fintech adoption if necessary. An analogy is in the transport industry where we could potentially see laws in many countries to be altered in future to allow driver-less vehicles to operate.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Question 1</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In communicating to customers the associate risk disclosures for participating in the Sandbox, under Annex B, paragraph 6.2f and 6.2g, point 3(vi), please clarify if the MAS also requires the FIs to disclose the mitigating measures they will put in place for such associate risks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 2</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• For 5.5b, please clarify if the MAS also requires FIs to include risk mitigation and remedial plans as part of the verification of the viability of the FinTech solution when applying to enter the Sandbox.</td>
</tr>
<tr>
<td>31</td>
<td>Respondent B</td>
<td>• For 5.5c, please clarify the MAS’ rationale on why FinTech solutions which can be reasonably and effectively experimented in a laboratory or test environment many not be suitable for the Sandbox.</td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
<td>Full Responses from Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Question 3</strong></td>
</tr>
</tbody>
</table>
|     |            | • We request the MAS to provide more clarity on what is meant by “technologically innovative” under paragraph 6.2a.  
• We request the MAS to provide more clarity on the timeframe for the implementation of the FinTech solution within the Sandbox. |
|     |            | **Question 4**                |
|     |            | • 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, our view is that the applicant should still be allowed to proceed to deploy the FinTech solution on a broader scale but this should be allowed on a case-by-case basis. We suggest that some factors which the MAS may consider include the extent and nature of the non-compliance, and whether this would lead to increased significant risks to the FIs, its customers and the industry. In such cases where the MAS allows the FinTech solution to be deployed, it should also make all conditions to such deployment clear to the FIs. |
|     |            | **Question 6**                |
|     |            | • Please clarify if the MAS will engage the FI in any post-deployment assessment of the FinTech solution. If so, please let us know the time frame after deployment when such assessment by the MAS will take place. In addition, please clarify if any such post-deployment assessment will be conducted jointly between the MAS and the FI or would the FI conduct such assessment and submit the results to the MAS for review. |
| 32  | Respondent C | **Question 1**                |
|     |            | • We would like MAS to consider providing support in the following ways which may encourage FinTech experimentations:-  
  o Pre-application engagement  
  o Remove the need for application for licensed entities  
  o Introduce No Enforcement Action Letters (NALs)  
  o Regulatory changes to keep pace with global developments |
Pre-Application Engagement

- Allow informal meetings or dialogues where the applicants can raise questions and obtain guidance on potential regulatory concerns as well as the expected safeguards that the MAS is looking for. This engagement process will help the Applicant in completing Annex B with the information that the MAS is looking for in its evaluation of the solution thereby speeding up the process of assessment.

Remove the need for application for licensed entities

- Licensed financial institutions have established policies and processes in place as well as qualified risk management and compliance units. For this reason, we suggest these applicants be allowed to test out their FinTech solution via a combination of engagement with their review officer followed by a notification to MAS (instead of an application process). For a start, this should be reserved only for Full Banks and Qualifying Full Banks in Singapore (as they are subjected to strict licensing requirements).

Practice No Enforcement Action Letters (“NALs”)

- To provide comfort for Sandbox experiments that are unchartered and where existing rules may not be apply, NALs could be extended. The Applicant will not be subjected to disciplinary action as long as the testing parameters are adhered to and customers are treated fairly. The UK and Australia are also looking at this practice of NALs.

Regulatory changes to keep pace with global developments

- To encourage financial innovation in Singapore, we suggest that MAS adopts a proactive approach to monitoring developments in other countries so that existing rules and regulations can be relaxed or amended in anticipation of aligning with the rest of the markets. This is to ensure that Singapore is not a barrier to entry for FinTech start-ups.

Question 3

Clarification on guideline 6.2a

- We would like more clarity on how the MAS will determine or ascertain that a FinTech solution is
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>technologically innovative or applied in an innovative way.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• General comment on the proposed evaluation criteria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o The evaluation criteria is very practical and thorough but is not the easiest process for the Applicant. It may be overwhelming in the technicalities and details that have to be provided at the onset of being considered for the Sandbox.</td>
</tr>
</tbody>
</table>

**Question 4**

• Applicant to be subjected to the same legal and regulatory requirements
  
o As financial institutions are regulated to ensure the soundness and stability of the financial industry, we feel that the Applicant should similarly be subjected to the same licensing requirements if they are going to conduct any activity that is currently regulated by the MAS.  
  
o To maintain a level playing field, if the MAS is prepared to grant any regulatory exemption(s) to a particular innovator, our view is that the MAS should be prepared to amend the rules and regulations so that the rest of the players are not unfairly regulated. |

**Question 5**

• Discontinuation of the FinTech solution should be clear and transparent
  
o We feel that 7.4a could be too broad for interpretation. To be fair to the Applicant, there should be no ambiguity on when the FinTech solution will be discontinued.  
  
o For 7.4d, the Applicant should not be allowed to exit the Sandbox at its own discretion if existing obligations to the customers have not been fully addressed. |

**Question 6**

• The application process should be more agile, broken down into a few test stages rather than taken in as an entire solution. Based on the diagram, the waiting period may take as long as a month before the Applicant will know whether the submission is suitable. We feel that suitability could be addressed from the beginning if the MAS provides the opportunity for the Applicant to have an open dialogue or consultation with the regulator and thereafter if the idea is
suitable for the Sandbox, create a safe space for it to be tested.

- The Applicant should be clear of what testing parameters and safeguards need to be included in the Sandbox and the applicable rules that will apply for the test after such discussions with the MAS. An application is only put in at this stage when there is greater certainty of obtaining a Sandbox approval. This process would cut down the time taken for the Applicant to test out an idea in the Sandbox.

**Any other comments**

- Legal and regulatory hurdles. FinTech innovators often cite compliance and legal as the main challenges in bringing their product to the market. We suggest that this can be overcome by testing without immediately incurring all the regulatory consequences. Applying only the rules applicable for the test that is being carried out. In other words, regulate in proportion to the size and scale of an idea.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Respondent D</td>
<td>Question 1</td>
</tr>
</tbody>
</table>

- We would like to recommend the following:
  - Exempting license requirement during the sandbox period for the Fintech company (Eg. – capital markets license, etc.)
  - No Enforcement Action – MAS issues a “no enforcement letter” on a case-by-case basis, i.e. MAS will not enforce any action against the Fintech firms for carrying out activities in the sandbox during the sandbox period so long as no consumer’s or public interest is compromised.
  - Individual Guidance – We suggest MAS to establish a few reference Use Cases for FiIs to be generally guided, when we prepare our Applications for submission.

- The above approach has been adopted by ASIC (Australian Securities & Investments Commission) in the Regulatory Sandbox guidelines public consultation paper, released on 8th Jun 2016 (refer to the section related to ‘AFS licensing exemption for limited service testing’).

- We also propose MAS to consider the following form of support to encourage more FinTech experimentation:
### Full Responses from Respondent

<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>o To allow sufficient time (upto 12 to 18 months) for the Sandbox to show results significant enough to justify for full rollout.</td>
</tr>
<tr>
<td></td>
<td>o To allow startups in other domains (Eg. – a startup that provides Artificial Intelligence (AI) / Internet of Things (IoT) solutions for non-financial activities) to operate in the Regulatory sandbox.</td>
</tr>
<tr>
<td></td>
<td>o To allow FIs to partner with other Corporates or Institutions (such as those related to Education, Mall operators, etc.) – the model can be a B2B2B model or collaboration such that FI is working with the Corporate/Institution’s customers / community.</td>
</tr>
<tr>
<td></td>
<td>o To set up a collaborative working model to enhance the partnership between the FI and MAS so as to speed up the development of FinTech initiatives. (e.g. To set up specialized operational teams within MAS to work directly with FIs for the facilitation of approving FinTech initiatives).</td>
</tr>
</tbody>
</table>

**Question 2**

- The Sandbox may not be required for the following:
  - o Use Cases that provide Virtual experience of Fintech solution to customers (This is a virtual production environment setup using hardware, software and configuration similar to production, houses real customer data with dummy accounts / virtual money. Transactions stay within the Bank’s boundaries and do not impact the Bank’s book).

- Also, we propose to exclude 5.5 (a) “The FinTech solution is considered to be similar to those that are already being offered in Singapore” as one of the circumstance where Sandbox may not be suitable. This is to allow a level playing field for the Banks to remain competitive in the market, especially when the FinTech solution may already have been offered in Singapore by non-bank players.

**Question 3**

- In our understanding, we assume that “technologically innovative solutions” are referring to solutions already implemented and gone live (excluding those that are in POC/Testing phase). However, we would like to understand if there is any criteria being outlined to identify “technologically innovative” solutions?
<table>
<thead>
<tr>
<th>S/N</th>
<th>Respondent</th>
<th>Full Responses from Respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Given the lack of a central depository of Fintech solutions, the assessment of similarity / innovativeness may only happen on best effort basis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• With regards to evaluation criteria, would like to understand whether the Fintech must be Singapore-owned and Singapore–based? Or can we allow experimentation to include non-Singapore-based Fintech but with the condition that should it be commercialized, they have to be Singapore-based?</td>
</tr>
</tbody>
</table>

**Question 4**

- In the event that the test outcomes have been achieved, but Applicant is unable to fully comply with the relevant Legal and Regulatory requirements, the Applicant should be allowed to:
  - Continue within sandbox scope (e.g. – limited customer base, limited transaction limits, limited functionality, etc.) on a mutually agreed timeline, within which the Applicant will comply with all existing regulatory requirements, AND/OR
  - Continue within sandbox scope (e.g. – limited customer base, limited transaction limits, limited functionality, etc.) on a mutually agreed timeline, within which the Applicant will discuss with Regulator on reviewing / clarifying existing regulatory requirements.

**Question 5**

- In the event that the FinTech solution is to be discontinued under the proposed circumstances, we request for the following:
  - MAS provides the Applicant with sufficient time to fulfil the contractual requirements / end the relationship with the customers who had been onboarded during the sandbox (so as to allow for graceful exit).

**Question 6**

- The Evaluation stage should be subsumed into the Application stage period (total of 21 working days for both stages).

**Any other comments**

<table>
<thead>
<tr>
<th>Para</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annex B, Para 6.2f &amp;</td>
<td>Monitoring plan to ensure the prompt notification of any breach to MAS, for example breach of the</td>
</tr>
<tr>
<td>S/N</td>
<td>Respondent</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
</tr>
</tbody>
</table>
| 6.2g, Requirement iii. | Sandbox test scenarios, boundary conditions or safeguards.  
The above statement should be amended to read as follows:  
Monitoring plan to ensure the prompt notification of any breach of the boundary conditions to MAS. |

- We would like the Identity of the Applicant as well as the Sandbox proposal details to be kept confidential.
RESPONSE TO FEEDBACK RECEIVED ON 16 NOVEMBER 2016

FINTECH REGULATORY SANDBOX GUIDELINES