



## CONCEPT PAPER ON FEASIBILITY OF USING A REGULATORY SANDBOX APPROACH IN KENYA

September 2016

Market Development©

---

## Table of Contents

Abbreviations .....	iv
1.0 Introduction.....	1
1.1 Objectives and Operationalization of a regulatory Sandbox.....	1
1.2 Importance of the Regulatory sandbox and Fintech Innovations .....	2
1.3 Who the sandbox is for?.....	3
1.4 Sandbox Duration/Time Period .....	5
1.5 How the Sandbox Works-MAS Case Study. ....	5
1.6 Jurisdictions where the Regulatory Sandbox has been proposed/applied .....	6
1.6.1 FCA UK .....	7
1.6.2 ASIC.....	8
1.6.3 MAS.....	9
1.6.4 Bank Negara Malaysia.....	9
1.7 Relationship between FinTech/Regulatory sandbox and vision 2030. ....	11
1.8 Fintech Innovation – the Future of capital Markets .....	12
1.9 Technological innovation will disrupt capital markets participants’ competitive advantages. ....	14
1.10 The platform Economy-.....	14
1.11 How to Apply for the Sandbox – FCA UK Case Study.....	15
1.11.1 Ready for testing .....	17
1.11.2 Assessing applications .....	17
1.11.3 Monitoring sandbox tests .....	17
2.0 International Developments and Jurisdictional Review .....	19
2.1 FCA-UK .....	20
2.2 Monetary Authority of Singapore .....	25
2.2.1 MAS and FCA Comparative Eligibility Criterion.....	31
2.3 Australia ASIC.....	32
2.3.1 Jurisdictional Comparison of the Regulatory Sandbox Key Features.....	35
2.3.2 Impact of the Regulatory Sandbox in Other Jurisdictions.....	38
a. Singapore .....	38
b. United Kingdom .....	38
2.3.3 Investor Interest Protection and Compensation in the Regulatory Sandbox .....	38
2.3.4 Legal and Regulatory Issues Involved with the Sandbox .....	39
3.0 Principal Based Regulations Linkage with the Regulatory Sandbox.....	40

4.0	Research Findings, Recommendations and Way Forward .....	43
4.1	Research Findings.....	43
4.2	Recommendations .....	45
5.0	Conclusion.....	48
	Appendix 1: An Example of a sandbox Application -Monetary Authority of Singapore .....	50

## List of Tables

Table 1:	Criteria for Using Sandbox in UK.....	21
Table 2:	FCA Options Firm Journey .....	24
Table 3:	MAS Proposed Sandbox Criteria.....	25
Table 4:	MAS Application and Approval Process .....	28
Table 6:	MAS and FCA Comparative Eligibility Criterion .....	31
Table 7:	Jurisdictional Comparison of Regulatory Sandbox Key Features.....	37

## **Abbreviations**

<b>AFS</b>	Australian Financial Services
<b>ASIC</b>	Australian Securities and Investments Commission
<b>CMA</b>	Capital Markets Authority
<b>CMMP</b>	Capital Markets Masterplan
<b>DFS</b>	Digital Financial Services
<b>FCA</b>	Financial Conduct Authority
<b>FinTech</b>	Financial Technology
<b>FX</b>	Foreign Exchange
<b>MAS</b>	Monetary Authority of Singapore
<b>MVP</b>	Minimum Viable Product
<b>NAL</b>	No Enforcement Action Letters
<b>PRA</b>	Prudential Regulation Authority
<b>Reg Box</b>	Regulatory Sandbox
<b>Reglab</b>	Regulatory Laboratory
<b>RegTech</b>	Regulatory Technology

## **1.0 Introduction**

A regulatory sandbox is a tailored framework that allows firms deploying innovative technology in the financial services sector (“FinTech participants”) to conduct their activities in a controlled and cost-effective environment. Also known as a regulatory laboratory or a “Reg lab”.

There is need for a regulatory environment that provides consumers with confidence while not unnecessarily restricting the opportunities for innovation. A regulatory sandbox has the potential to encourage and support the design and delivery of new financial products and services that benefit consumers and businesses. The industry believes that a sandbox is a crucial component to assist Kenya become a leading market for FinTech innovation in Kenya and Africa at large.

Kenya’s regulatory regime is flexible in terms of delivering licensing and regulatory oversight tailored to the scope of a starting a business, while ensuring consumers remain informed. The legislative framework makes it possible for Kenya to grant waivers (or relief) from the law to facilitate business.

### **1.1 Objectives and Operationalization of a regulatory Sandbox**

Advances in financial technology have led to the introduction of new business models and solutions that have contributed to the enhancement of value and customer experience as well as financial institutions’ efficiency and risk management.

Given the important role that innovation plays in enhancing the financial landscape, lately, some jurisdictions have actively been seeking to provide a regulatory environment that is conducive for its deployment. This includes reviewing and adapting regulatory requirements or procedures that may unintentionally inhibit innovation or render it non-viable.

A Sandbox is usually intended to facilitate testing in a contained environment and cannot be used to circumvent existing laws and regulations. A Sandbox is therefore not suitable for

proposed activities or solutions that are already appropriately addressed under prevailing laws and regulations.

## **1.2 Importance of the Regulatory sandbox and Fintech Innovations**

If activities within a sandbox environment see the light of day, this can foster innovation and promote product development, translating into a diversity of more products being available in the market, thus creating deeper capital markets. Below

- i. **Reduced time-to-market at potentially lower cost:** Delays driven by regulatory uncertainty disproportionately affect first-movers and discourage innovators. Evidence from other industries suggests that time-to-market can be increased by about a third in this way, at a cost of about 8% of product lifetime revenue.
- ii. **Better access to finance:** Financial innovation relies on investment, much of it through equity funding. Regulatory uncertainty at a crucial growth stage means that FinTech firms find it harder to raise funds and achieve lower valuations as investors try to factor in risks that they are not well placed to assess. Evidence from other industries suggests valuations may be reduced by about 15% due to regulatory uncertainty; it is more difficult to estimate the number of firms that fail to achieve any funding at all.
- iii. **More innovative products reaching the market:** Due to regulatory uncertainty, some innovations are abandoned at an early stage and never even tested. As the sandbox framework enables firms to manage regulatory risks during the testing stage, more solutions may be trialed and later potentially introduced to the market.
- iv. The benefits the sandbox could provide firms should lead to better outcomes for consumers through, for example, an increased range of products and services, reduced costs, and improved access to financial services.

**Sandboxes enable regulators to work with innovators to ensure that appropriate consumer protection safeguards are built in to their new products and services before these reach a mass market.**

### 1.3 Who the sandbox is for?

#### a. Unauthorized businesses

- The sandbox may be useful for unauthorized firms that need to become authorized before being able to test their innovation in a live environment.
- On a limited basis, unauthorized businesses seeking to test products and services without the need to obtain full authorization.
- Unauthorized businesses will use the sandbox predominantly to facilitate testing without the need for full authorization.
- Successful firms will be granted restricted authorization that only allows them to test their ideas. These firms will still need to apply for authorization and meet threshold conditions, but only for the limited purposes of the sandbox test.
- This should make it easier for firms to meet our requirements, and reduce the cost and time to get the test up and running.
- This restricted authorization option is not available to firms looking for a banking license. Firms looking to become a bank should contact the Central Bank.

#### b. Authorized businesses

The sandbox may be useful for authorized firms looking for clarity around applicable rules before testing an idea that does not easily fit into the existing regulatory framework.

The regulator can help in the following ways:

- **Individual guidance:** setting out how we interpret relevant rules in the context of the test. This creates a safe space because, if you act in accordance with this guidance, we will proceed on the basis that you have complied with the aspects of our rules that the guidance relates to.
- **Waivers or modifications to our rules:** if your test might breach one of our rules we may be able to waive or modify it where it is unduly burdensome or not achieving its

purpose, and waiver or modification would not adversely affect the advancement of any of our objectives. We are not able to waive national or international law.

- **No enforcement action letters:** this letter would give firms some comfort that as long as they dealt with us openly, kept to the agreed testing parameters and treated customers fairly, we accept that unexpected issues may arise and we would not expect to take disciplinary action. This tool will only be used for cases where we are not able to issue individual guidance or waivers but we believe it is justified in light of the particular circumstances and characteristics of different sandbox tests. The letter would only apply for the duration of the sandbox test, only to our disciplinary action and will not seek to limit any liabilities to consumers.

#### c. Technology businesses supporting financial services

Technology businesses and Financial technology firms that want to provide services to licensed and regulated firms/intermediaries (e.g., through outsourcing agreements<sup>1</sup>) can also apply for the sandbox and the above tools if they need clarity around applicable rules before testing.

The sandbox is a world-first for financial services regulators.

---

<sup>1</sup> means any arrangement for the outsourcing of outsourced functions between a market intermediary and a service provider or a sub-contractor.



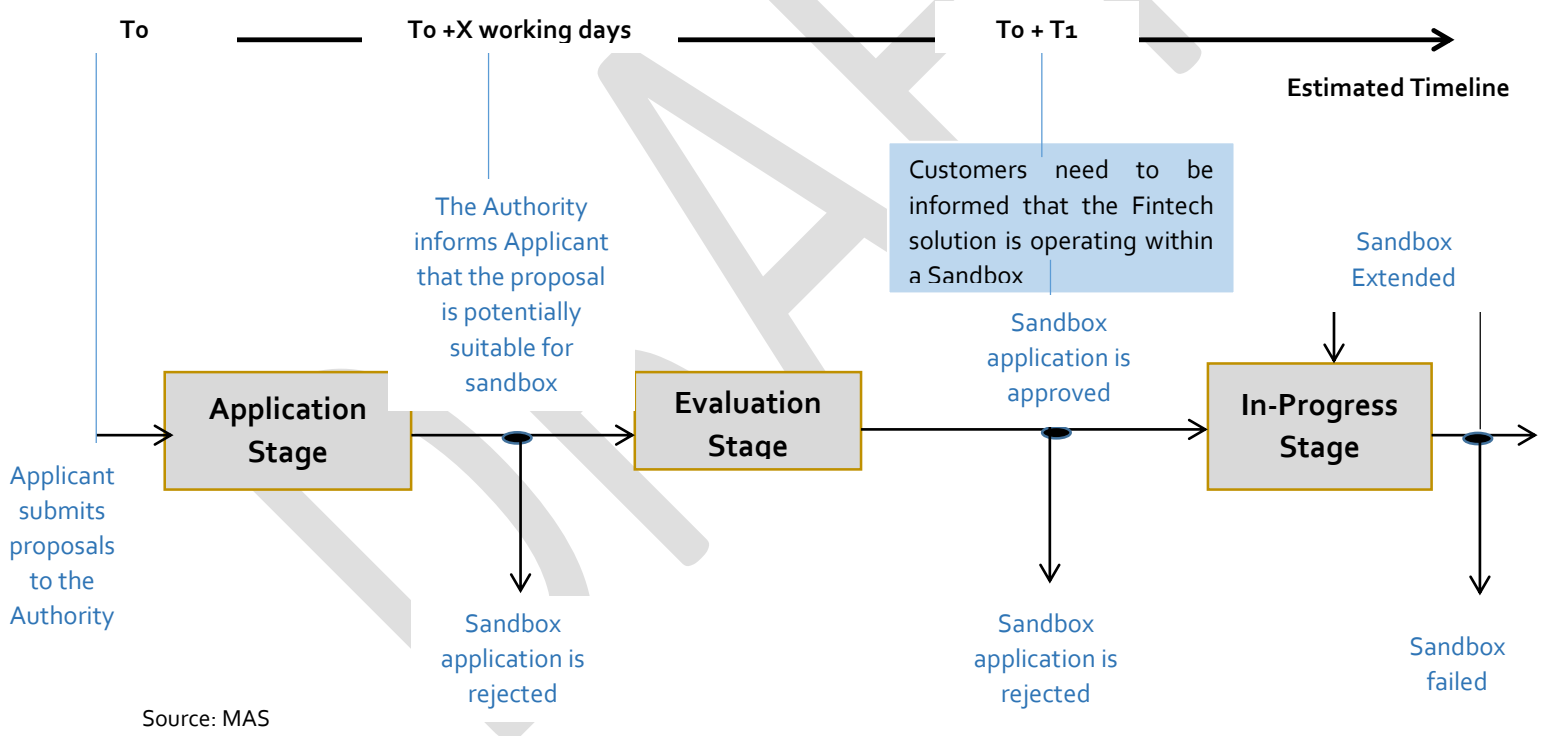
## 1.4 Sandbox Duration/Time Period

**Australia:** ASIC proposes to limit the AFS licensing exemption to one six-month period, with no option for extension.

**UK:** The FCA considers three to six months to be an appropriate duration for businesses to be granted restricted authorization to test their ideas. It is unclear whether any extensions will be permitted.

**Singapore:** It appears the time period will be set by the business applying for the exemption and can be extended by application.

## 1.5 How the Sandbox Works-MAS Case Study.



MAS timetable for the Sandbox and approval process is as follows: -

MAS initially invites interested authorized firms, unauthorized firms and technological firms interested in offering solutions and or products and services linked to Financial services to apply for the sandbox

### A. Application Stage

Upon receipt of a complete and final set of information for assessment, MAS will review the application and aim to inform the Applicant within 21 working days whether the matter is suitable for a Sandbox after MAS receives a complete and final set of information necessary for the assessment(To).

## **B. Evaluation Stage**

At the “Evaluation Stage”, the time required to assess the proposal ( $T_1$ ) is dependent on its complexity and the specific legal and regulatory requirements involved. MAS may make further assessments before approving the Sandbox application. 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.

At the end of this evaluation stage, the Applicant will be formally notified in writing of the outcome of the Sandbox application.

One of the key expectations of MAS when evaluating the application for the Sandbox is that there should be a communications plan for the relevant affected customers to be informed that they would be participating in the Sandbox. Affected customers should be told, amongst other things, of the duration of experimentation within the Sandbox, the boundary conditions and the risks involved.

## **C. In-Progress Stage**

The Applicant would be informed in writing whether to proceed with the Sandbox. On approval of the Sandbox application, the Sandbox is launched into the In-Progress stage for a fixed duration, upon the expiry of which the Applicant must exit from the Sandbox.

### **1.6 Jurisdictions where the Regulatory Sandbox has been proposed/applied**

A few developed market regulators—the UK’s Financial Conduct Authority, the Monetary Authority of Singapore and the Australian Securities and Investments Commission—recently allowed the private sector to experiment within certain bounds to learn how to regulate and supervise this emerging industry, using a “sandbox” approach.

Although publicized as novel, the “sandbox” is not a new concept; it is just a new expression. Quite some time back in many developing countries, regulators adopted a flexible “test and learn” approach to foster innovation. By letting regulation follow change, the central banks of the Philippines and Tanzania created space for innovating with digital financial services (DFS) to glean a better understanding of the business, its operational risks and mitigating factors. Both countries authorized reputable early implementers to try new products and business models under close monitoring and frequent contact, rather than imposing a predetermined regulatory framework upfront. At the time, supervisors saw this as somewhat outside their mandate. They argued that there was a conflict of interest between regulatory and developmental roles. Given this backdrop, the recent decisions of the UK, Singaporean and Australian market regulators to go with a ‘regulatory sandbox’ vindicates the old “test and learn” approach.

#### **1.6.1 FCA UK**

The FCA wants to promote competition by supporting disruptive innovation. It is estimated that the UK’s FinTech sector generates about £20bn in revenue annually, with a total market of £3.6bn in ‘disruptive’ FinTech (small, innovative firms disintermediating incumbent financial services firms with new technology).

Half of the promising ‘disruptive’ FinTech start-ups in Europe are in the UK. To remain Europe’s leading FinTech Hub, UK has to continue to be an attractive market with an appropriate regulatory framework. The sandbox enables the FCA to work with innovators to ensure that appropriate consumer protection safeguards are built in to their new products and services before these reach a mass market.

The regulatory sandbox established by the UK Financial Conduct Authority (FCA) was opened up to FinTechs on 9 May this year. Under the UK regulatory sandbox, eligible “sandbox firms” will be able to test their innovative products or services for a specified period without having to obtain full authorization. However, this approach is still subject to limitations as businesses will need to become authorised and satisfy particular requirements before they can start testing, which can take time and resources.

FCA aims to make a decision within six months to grant a firm a credit or financial services license.

### **1.6.2 ASIC**

A 'regulatory sandbox' has the potential to encourage and support the design and delivery of new financial products and services that benefit consumers and businesses. The industry believes that a 'sandbox' is a crucial component to assist Australia become a leading market for FinTech innovation in Asia.

The Australian Government has been working with the Australian Securities and Investments Commission (ASIC) on the development of a 'regulatory sandbox' for Australian FinTech start-ups.

With a 'regulatory sandbox', FinTech innovators can overcome regulatory uncertainty and costs that may otherwise see innovative offerings not go ahead. According to the industry an effective 'sandbox' will enable firms to manage regulatory risks during the testing stage, reducing the cost and time to market. At the same time, any 'sandbox' will need to provide for important consumer outcomes such as fit and proper checks, dispute resolution and consumer redress arrangements.

Australia's regulatory regime is flexible and the legislative framework makes it possible for ASIC to grant waivers (or relief) from the law to facilitate business.

During 2014–15, ASIC approved 1,473 relief applications. Among other matters, existing waiver powers enable ASIC to grant relief from Australian Financial Service (AFS) licensing requirements, provide exemptions from disclosure or reporting obligations, and issue no-action letters where ASIC does not intend to take regulatory action over a particular instance of non-compliance.

Australia's regulatory regime also compares well in terms of how long it takes to make a decision. ASIC has an average target of 60 days to grant a credit or financial services license.

Start-ups can also find it difficult to navigate the complexity of financial services laws, which is time consuming and expensive. The Government is committed to making this easier.

In April 2015, ASIC established an Innovation Hub to help FinTech start-ups navigate the regulatory laws it administers on a streamlined basis, including by providing informal guidance from senior regulatory advisers. Since then, the Hub has accepted requests for assistance from 52 entities and has worked closely with other domestic and international regulators.

### **1.6.3 MAS**

MAS aims to transform Singapore into a smart financial centre by encouraging the adoption of innovative and safe technology in the financial sector.

The Sandbox can help to encourage more FinTech experimentations within a well-defined space and duration where MAS will provide the requisite regulatory support.

MAS proposes that applications for solutions to be tested in the regulatory sandbox be assessed on criteria such as the extent of innovativeness of the FinTech solution, whether the applicant has the intention and ability to deploy the solution in Singapore on a broader scale as well as whether the solution brings benefits to consumers and/or the industry.

MAS Sandbox duration is not specified, however at the "Application Stage", MAS shall review the proposal and endeavor to inform the Applicant of its potential suitability for a Sandbox within 21 working days after MAS receives a complete and final set of information necessary for the assessment.

### **1.6.4 Bank Negara Malaysia**

Bank Negara Malaysia (the Bank) is enhancing its regulatory approach to facilitate the development and adoption of innovative financial technology (fintech) solutions.

In this regard, the Bank plans to introduce a regulatory sandbox (the Sandbox) framework, under which financial institutions regulated by the Bank (financial institutions) and fintech

companies may be granted certain regulatory flexibilities to experiment with fintech solutions in a production or live environment.

These flexibilities will be accompanied by appropriate safeguards to preserve financial stability and promoting fair treatment to consumers.

The aim of these flexibilities is to encourage innovation and improve the delivery of financial services.

In this regard, a Sandbox may be deployed for testing for a period not exceeding twelve (12) months.

#### **1.6.5 Abu Dhabi Regulatory Sandbox**

The Financial Services Regulatory Authority (FSRA) of Abu Dhabi Global Market (ADGM) on 10<sup>th</sup> May 2016 published a public consultation paper setting out its proposal for a “Regulatory Laboratory” (“Reglab”), a tailored framework that allows firms deploying innovative technology in the financial services sector (“FinTech participants”) to conduct their activities in a controlled and cost-effective environment.

Such initiative is the first in the Middle East and North Africa (MENA) region. The Reglab has been formulated specifically to cater to the unique risks and requirements of FinTech participants, and incorporates extensive feedback from key local and global stakeholders. The proposed Reglab will continue to promote FSRA’s objective in developing a stable and sustainable financial services sector in Abu Dhabi, while fostering innovation within scoped parameters buffered by risk-proportionate regulatory safeguards.

The Reglab provides Fintech participants the certainty of obtaining relevant regulatory approvals on a stable platform where they can test or deploy new technologies. Additionally, the Reglab draws on a holistic approach to support Abu Dhabi’s vision of developing an innovative financial services sector that is underpinned by robust regulatory principles. Together with key partners and stakeholders, ADGM aims to develop an environment that harnesses FinTechs potential to increase efficiency, widen consumer choice and facilitate better risk management in the financial services industry within Abu Dhabi and the GCC region.

### 1.7 Relationship between FinTech/Regulatory sandbox and vision 2030.

The economic, social and political pillars of Kenya Vision 2030 are anchored on macroeconomic stability; continuity in governance reforms, enhanced equity and wealth creation opportunities for the poor.

The Vision 2030 strategy is to undertake reforms in 8 key sectors that form the foundation of society for socio-political and economic growth.

- Macroeconomic - Stability for long term development
- Infrastructure
- Energy
- **Science, Technology and Innovation (STI)**
- Land reform
- Human resources development
- Security
- Public sector reforms

As well noted above, vision 2030 is very categorical about the importance of technology and Innovation in the economic development of the country.

Borrowing from the economic pillar, the flagship projects encompassed within the financial services include **International Financial Centre, Deepening of Capital Markets** and **Single Revenue Collector**. To achieve especially the first two projects, innovation has to be at its best. The sandbox is a timely measure to prompt the achievement of this projects.

### **1.8 Fintech Innovation – the Future of capital Markets**

The digital disruption affecting banking and other financial services is likely to accelerate with the growing success of Kenya's Fintech industry. 'Fintech' from a wider perspective; is an economic industry composed of companies that use technology to make financial systems more efficient.

Fintech start-ups and entrepreneurs are raising more money from investors and venture-capital firms than ever before, with retail banking being the biggest beneficiary of this investment drive. We have seen retail banking and Technological industries such as Safaricom transformed with Fintech developments in mobile payments, peer-to-peer lending and money management, but could the same thing happen in capital markets?

Tough regulatory and compliance requirements have previously deterred investors and start-ups from focusing on capital markets, but this is beginning to change. Banks are now rethinking their business models due to regulatory pressures and this has also affected their technology infrastructures. Faced with tighter budgets, firms are becoming even more reluctant to build all their technology in-house and there is now a greater willingness to turn to start-ups for new and innovative technology to improve efficiency and reduce costs. Investors and start-ups are becoming aware of this and are beginning to turn their attention to focus on capital markets.

In other emerging markets and developed economies, Fintech innovation is having a big impact on existing areas such as analytics, data management and business intelligence, but also in helping develop new ways of doing business, all of which are vital for better risk management practices. Another area of growing interest to investment banks in developed is the evolution of cloud technology. Concerns about security have previously made banks cautious of adopting such technology, but this is beginning to change, following improvements made to cloud security and the availability of more applications. Banks are also applying cloud concepts that benefit enterprise IT as a whole, a process I like to call 'cloudification'. Two of the biggest challenges that this new world brings to big financial corporations are agility and cloud computing.



The attraction of cloud technology is that it allows firms to offload infrastructure requirements to cloud service providers. Start-ups and SME's have quickly taken advantage of this opportunity as it helps them to reduce headcount, IT infrastructure investment, software development and application support costs. Banks can also realize the benefits of moving data, software and services into an online 'cloud' environment, but only if the security is of the highest order. Cloud technology has now evolved and concerns about security are disappearing; encouraging banks to embrace the opportunities on offer.

With regard to agility, the Fintech world is aligned to the current digitalization trends, including: continuous innovation, frequent deliveries (of three to six weeks), the introduction of the minimum viable product (MVP) concept, and lean processes. This is also a challenge for banks, as they have heavy processes that make the decision making a hassle, innovation tough and delivery of new ideas very slow.

If Fintech is going to increase its influence in capital markets, greater education and collaboration amongst investors, start-ups and banks is needed. Start-ups and investors have previously been unfamiliar with the sector and need to understand how Fintech can best serve the needs of capital markets. Banks need to have confidence that start-ups and smaller firms understand their industry and will remain in business in the long term, while vendors have to understand the needs and challenges faced by all participants.

More bankers and traders will be seen changing careers and moving into the financial technology sector. These individuals are at the forefront of Fintech innovation as they are using their front-line experience and expertise with financial products, markets, regulations and systems in order to develop new products and services. Greater collaboration is also emerging with the growth of more Fintech Innovation Labs/Regulatory Labs/Sandbox Technologies which aim to bring entrepreneurs and banks together.

Investment banks are also beginning to invest directly in Fintech companies, by creating their own in-house venture capital funds. The potential benefit of this is the chance to learn from leading Fintech innovators, as well as to partly own the emerging technology.

To grow the collaboration between banks, start-ups and investors they should consider setting up a neutral ground governed by a very lean common framework. Consultancy firms specializing in technology and capital markets could play a facilitator role as they are also performing an influential role in developing this collaboration by bringing these communities together. The knowledge and expertise consultancies have will prove invaluable to banks seeking to leverage the benefits of Fintech innovation and start-ups seeking to develop potential applications and products for investment banks.

### **1.9 Technological innovation will disrupt capital markets participants' competitive advantages.**

Regulation is causing disruption and uncertainty. However, it is also creating opportunities for new players.

In many ways technology is making it possible for new entrants to compete or become additive to existing players and value chains – examples include the use of artificial intelligence to displace 'voice'-dominated markets and alternative research providers that leverage unstructured data to generate deeper insights into existing trends and market opportunities. In short, technology will touch and transform business models in a vast array of areas, such as data management, market surveillance, cyber security, regulatory reporting, funding and alpha capture.

### **1.10 The platform Economy<sup>2</sup>-**

Adaptable, scalable and interconnected technologies are driving the next wave of innovation in capital markets. It is important to note that although platform business models are driving a major macroeconomic shift, adopting them does not mean giving up on existing business (value chain) models. In fact, they will often provide the new platform's foundational strength.

---

<sup>2</sup>[https://www.accenture.com/t20160804T100550\\_\\_w\\_\\_/usen/\\_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Technology-Trends-Technology-Vision-2016.pdf#zoom=50](https://www.accenture.com/t20160804T100550__w__/usen/_acnmedia/Accenture/Omobono/TechnologyVision/pdf/Technology-Trends-Technology-Vision-2016.pdf#zoom=50)

### 1.11 How to Apply for the Sandbox – FCA UK Case Study

Criteria	Key Questions	Positive indicators	Negative Indicators
<b>Is the firm in scope?</b>	Is the firm looking to deliver innovation which is either regulated business or supports regulated business in the UK financial services market?	Innovation appears to be intended for the UK market The firm's relevant activity is regulated by the FCA or is intended for firms regulated by the FCA	Innovation does not appear to be intended for use in the UK The firm's relevant activity is not within the scope of the FCA's regulatory regime or intended for FCA regulated firms
<b>Is it genuine innovation?</b>	Is the innovation ground-breaking or constitute a significantly different offering in the marketplace?	Desk research produces few or no comparable offerings already established on the market Internal experts believe that it constitutes a genuinely innovative technology / approach / product or service Step-change in scale	There are numerous examples of similar offerings already established on the market Internal expertise believes it is not particularly innovative It looks like artificial product differentiation
<b>Is there a consumer benefit?</b>	Does the innovation offer a good prospect of identifiable benefit to consumers (either directly or via heightened competition)?	The innovation is likely to lead to a better deal for consumer directly or indirectly, e.g. through higher quality services or lower prices due to enhanced efficiency The business has identified any possible consumer risks and proposed mitigation The innovation will promote effective competition	Likely detrimental impact on consumers, markets or the financial system It looks designed to circumvent regulatory or fiscal obligations
<b>Is there a need for a sandbox?</b>	Does the business have a genuine need to test the innovation on real customers and in the FCA sandbox?	The innovation does not easily fit the existing regulatory framework, thus making it difficult or costly to get the innovation to market There is a clear need for a sandbox tool in order to test this product in a live environment	Live testing is not necessary to answer the question that the firm is seeking to answer (to achieve the testing objective) The firm is able to undertake the test

		<p>The business has no alternative means of engaging with the FCA or achieving the testing objective</p> <p>The full authorisation process would be too costly/burdensome for the purposes of a short test of the viability of a particular innovation</p>	<p>easily without the support of the FCA</p> <p>A dedicated supervisor or the Innovation Hub could answer the query</p>
Is the firm ready for testing?	Is the business ready to test their innovation in a live environment?	<p>Testing plans are well developed with clear objectives, parameters and success criteria</p> <p>Some testing has been conducted to date</p> <p>The firm has the tools and resources required to enable testing in the sandbox</p> <p>The firm has sufficient safeguards in place to protect consumers and is able to provide appropriate redress if required</p>	<p>Unclear objectives for testing and/or plans for testing are underdeveloped</p> <p>Little to no testing has been conducted on the innovation to date</p> <p>The firm does not have the required resources available to conduct the sandbox test</p> <p>The proposed customer safeguards are inadequate and/or appropriate redress cannot be provided by the firm</p>

Source: [www.fca.org.uk](http://www.fca.org.uk)

From the table above your application must show that:

- the firm is in scope
- the idea is a genuine innovation
- there is a consumer benefit
- there is a need for sandbox, including which tool and why
- the firm is ready for testing

#### **1.11.1 Ready for testing**

The requirement for a firm to be ready for testing is a particularly important part of your application as firms with the most feasible tests will be selected for the first cohorts.

For this criterion we will be interested in:

- whether your idea is in a stage of development where it can be tested in a live environment (including if you have done any testing so far)
- your testing objective and testing plan

After which the exact testing parameters and customer safeguards with each sandbox firm on a case-by-case basis depending on the type of customers engaged in the test, and the size, scale and risk of the trial will be agreed on.

To help the firm brainstorm about the test, default standards have been developed which will be act as the starting-point.

#### **1.11.2 Assessing applications**

Applications will be assessed and a small number of firms selected based on the eligibility criteria. Applicants will be contacted to inform them on whether they have been accepted into the sandbox programme.

If you are accepted, FCA will start working with you to agree the details of the test and then issue the sandbox tool.

For dual-regulated firms, we will work with the PRA to agree the appropriate sandbox tools. Where necessary, these will be delivered in consultation or with the consent of the PRA in line with the terms of our Memorandum of Understanding.

#### **1.11.3 Monitoring sandbox tests**

FCA will agree with the firm on the reporting requirements that are appropriate for your test. The starting position is that firms will generally have to report each week on agreed testing milestones, key findings and risk management during testing.

If you fail to report to the Innovation Hub or do not comply with Principle 11 of the FCA Handbook, FCA reserve the right to end the test.

After the test is completed, the firm will have four weeks to produce and submit a final report. After which FCA will give written feedback on the report but we will not certify business models or sign off products or services.

FCA will also look to publish findings from sandbox testing to educate the industry on any learnings. However, FCA will have to review what they can publish on a case-by-case basis to ensure that any confidential information is protected.

## **2.0 International Developments and Jurisdictional Review**

### **Current Status**

Regulators in overseas jurisdictions have also considered additional measures that they can adopt to facilitate innovation within their own regulatory frameworks.

#### **a. UK**

The Financial Conduct Authority (FCA) has expanded its Project Innovate (the FCA's version of ASIC's Innovation Hub) to include a regulatory sandbox, or 'safe space', in which businesses can test innovative products, services, business models and delivery mechanisms in a live environment without immediately incurring all the usual regulatory obligations.

The FCA's sandbox is available to the public for application. Applications for the first group opened on 9 May 2016 and closed on 8 July 2016.

Unauthorised firms who wish to participate in the sandbox testing environment will go through a tailored, restricted authorization process. This will allow firms to test their ideas while reducing the cost and time to get the trial up and running.

Authorised firms can request individual guidance, a waiver or a no-action letter from the FCA in relation to their test.

These options align with arrangements that are already in place under the Australian regulatory framework.

The testing parameters and customer safeguards that apply to each participating firm will be settled on a case-by-case basis depending on the type of customers and the size, scale and risk of the trial.

The FCA has published some default standards which indicate the types of restrictions that are likely to be appropriate for sandbox testing. These include:

- a test duration of three to six months;
- strict limits on the number of customers;
- requiring access for retail clients to dispute resolution and compensation;
- requiring informed consent from sophisticated consumers before they agree to limit their claims for compensation;
- additional safeguards, such as disclosure requirements, depending on the nature of the trial; and
- the creation of a testing plan.

These default standards align with some of the conditions we have proposed for the service testing licensing exemption.

## **b. Singapore**

The Monetary Authority of Singapore (MAS) has announced that it will introduce a 'regulatory sandbox' to give financial institutions more confidence to experiment with and launch their innovative products or services within controlled boundaries.

MAS released guidelines for public consultation on how the sandbox will operate.

## **c. United States**

The Consumer Finance Protection Bureau (CFPB), the US consumer finance regulator, recently finalized its no-action letter policy.

The new policy establishes a process whereby companies can apply for a statement from CFPB staff (i.e. a no-action letter) that would reduce regulatory uncertainty for a new product or service that offers the potential for significant consumer-friendly innovation.

## **Jurisdictional Review**

### **2.1 FCA-UK**

The UK has been leading the race in creating a progressive Fintech regulatory framework. UK policymakers, known for a mix of fintech-friendly measures, have been exceptionally responsive to technology innovations in this booming sector. Early in 2014, the Financial Conduct Authority (FCA) launched Project Innovate, an umbrella initiative that provides fintech startups with direct support and regulatory flexibility. Its Innovation Hub already helped hundreds of FinTechs navigate their way through rules and regulations. Today, the FCA has some new ideas brewing, including:

- a. a Regulatory Sandbox that will enable Fintech companies to test their new products in a "safe space"
- b. a Robo-Adviser unit to help firms develop automated services
- c. a program centering on RegTech, the technological solutions designed to facilitate efficient and effective compliance with regulation



The regulatory sandbox established by the UK Financial Conduct Authority (FCA) was opened up to FinTechs on 9 May 2016.

### Criteria for Using Sandbox in UK

FCA's sandbox criteria is similar to the criteria for requesting for support from FCA's Innovation Hub:

Table 1: Criteria for Using Sandbox in UK

Criteria	Description
Is the Firm in scope	Is the planned new solution designed for or supports the financial services industry?
Genuine Innovation	Is the new solution novel or significantly different to existing offerings?
Consumer Benefit	Does the innovation offer a good prospect of identifiable benefit to consumers? This criterion should continue to be met throughout the period of sandbox testing.
Background Research	Has the business invested appropriate resources in developing the new solution, understanding the applicable regulations, and mitigating the risks?
Need for Sandbox	What is the objective of testing? Does the business have a genuine need for testing within the sandbox framework?

### Options for Unauthorized Firms<sup>3</sup>

Currently, unauthorized firms have to incur potentially significant one-off costs and apply for authorization before they can meaningfully explore customers' appetites for a product or service. Therefore, the FCA intends the sandbox to be open to both authorized and unauthorized firms.

Though, these proposed options will not be available for activities such as payment services and e-money, which already benefit from a lighter registration regime for certain smaller firms.

### Tailored authorization process

<sup>3</sup> [http://www.bonddickinson.com/sites/default/files/financial\\_services\\_updates\\_regulatory\\_sandbox\\_dec\\_15.pdf](http://www.bonddickinson.com/sites/default/files/financial_services_updates_regulatory_sandbox_dec_15.pdf)

The FCA proposes to set-up a tailored authorisations process where unauthorised firms will first be authorised, subject to proportionate restrictions, which allow them to test their ideas in the sandbox, but nothing more. This option is obviously quicker than seeking full authorisation, but is nonetheless a form of authorisation which will no doubt take considerable investment in time and money.

### **Sandbox umbrella**

The FCA believes that a not-for-profit company could be set-up by industry to act as an umbrella that allows unauthorised innovators to offer their services under its shelter as an appointed representative. Appointed representatives rely on their principal's authorisations to carry-on those same regulated activities without having to be authorised themselves. This option will also take time to come to fruition and will require industry cooperation, which the FCA is keen to facilitate.

### **Options for Authorized firms and Outsourcing**

Authorized firms and technology firms that provide outsourced services rightly spend time worried about the FCA's reaction to cutting edge products and services.

The FCA proposed to provide certainty to these firms by giving assurances that enforcement action will not be taken at a later date in relation to testing activities, provided firms abide by the conditions agreed with the sandbox unit.

The FCA propose to be able to:

- issue no enforcement action letters (NAL) stating that no FCA enforcement action will be taken against testing activities where the FCA is reasonably satisfied that the activities do not breach their requirements or harm their objectives;
- provide individual guidance to a firm on the interpretation of applicable rules in respect of testing activities; and

- waive or modify particular rules for sandbox firms, where it is clear that the testing activities do not meet the FCA's rules, but the firm can meet the waiver test<sup>4</sup> and the rules are within the FCA's power to waive. This option would not be open to firms not regulated under the Financial Services and Markets Act 2000 (such as payment institutions).

## **Safeguards**

The FCA will require consumer safeguards and has proposed a number of approaches. The first may be that firms are only allowed to test their new solutions on customers who have given their consent and have been informed of the risks and available compensation. Another approach may be that the FCA agrees on a case-by-case basis the disclosure, protection and compensation appropriate to the specific testing activity.

A real-life scenario is also envisaged, where consumers have the same rights as customers who deal with authorized firms (e.g. to complain to the firm, the Financial Ombudsman Service and have access to the Financial Services Compensation Scheme). The final proposal is that sandbox firms be required to compensate any losses (even investment losses) to customers. These firms would also be required to demonstrate that they have the adequate financial resources to do so.

The FCA stated that it would prefer to determine the safeguards on a case-by-case basis, which will likely see the use of a combination of the proposals depending on the risks involved with the product being tested.

## **Virtual Sandbox**

The FCA suggested that the industry introduce a low-risk virtual sandbox, which is an environment that enables authorised and unauthorised firms to test their solutions virtually without entering the market. Such a solution might allow firms to run tests on public data sets or data provided by other firms.

---

<sup>4</sup> Section 138A(4) Financial Services and Markets Act 2000

Criteria are introduced as a prerequisite for sandbox to ensure consistent treatment of firms and advancement of FCA objectives.

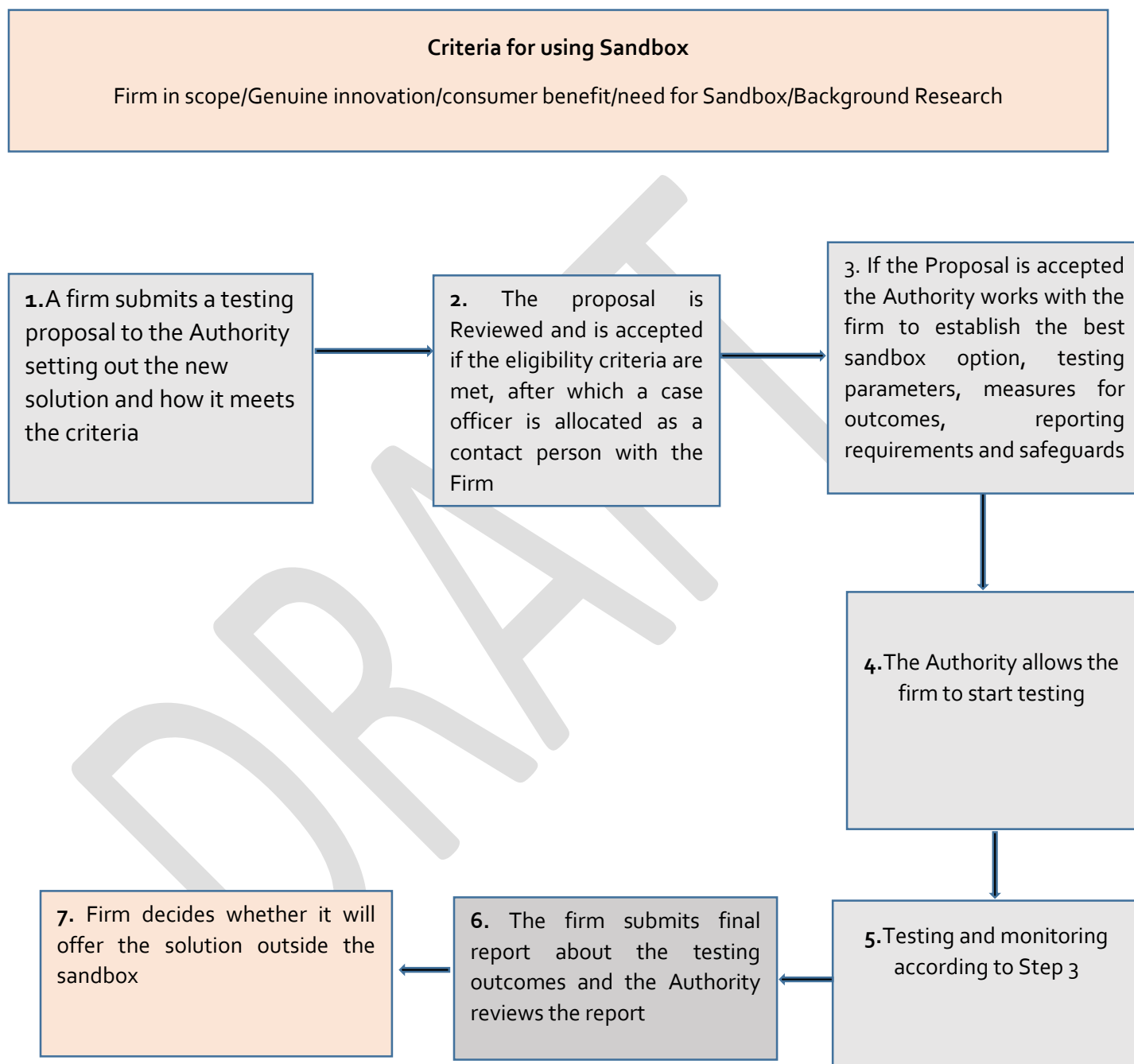


Table 2: FCA Options Firm Journey

## 2.2 Monetary Authority of Singapore

### Sandbox Evaluation Criteria

The MAS Regulatory Sandbox provides a conducive environment for the experimentation of innovative technology where the consequences of failure can be contained and the overall safety and soundness of the financial system maintained. Financial institutions and Fintech firms can approach MAS to discuss how their innovative Fintech solutions can be launched in the Sandbox, while the proposed guidelines are being consulted and finalized.

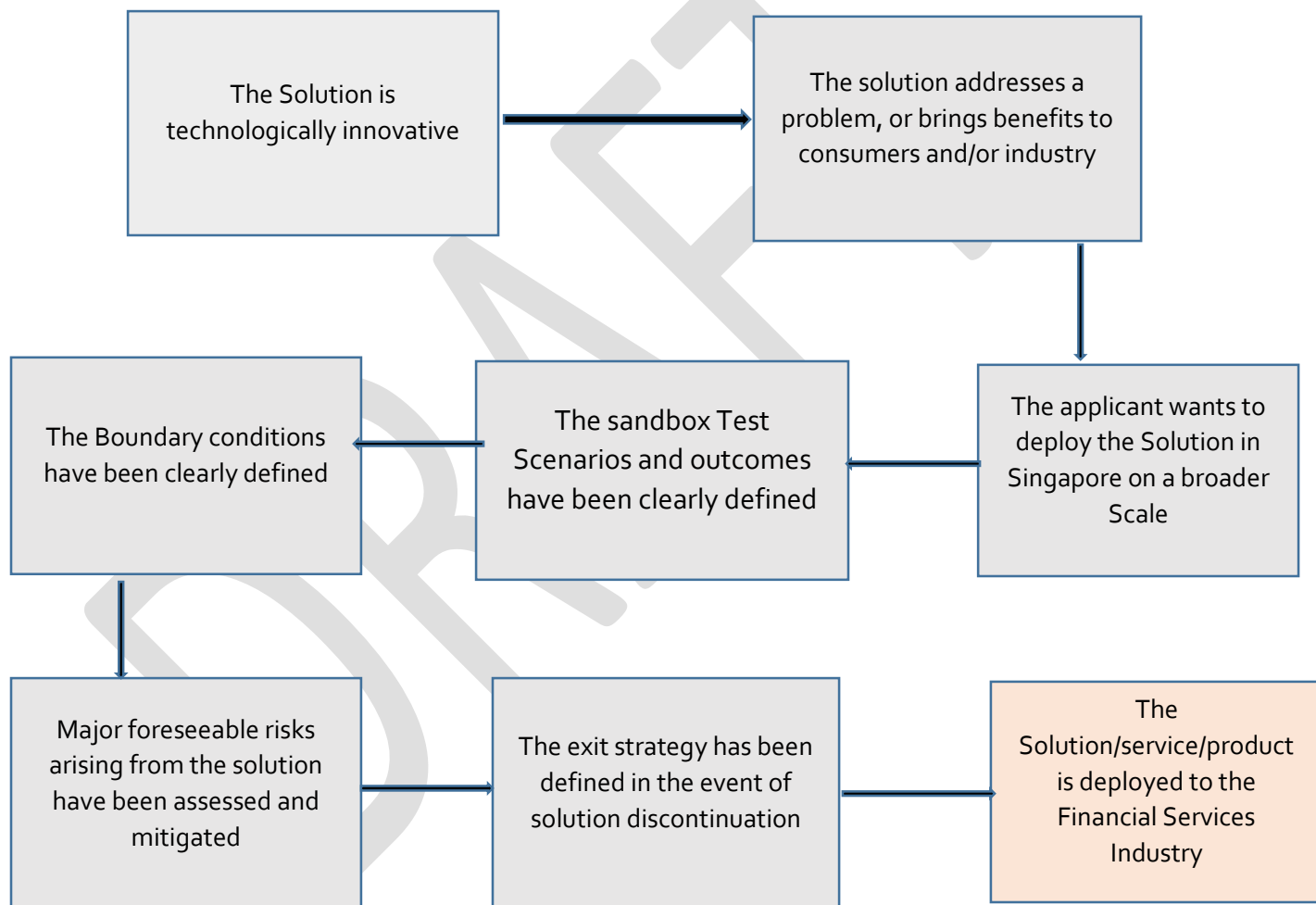


Table 3: MAS Proposed Sandbox Criteria

Source: <http://www.mas.gov.sg/News-and-Publications/Media-Releases/2016/MAS-Proposes-a-Regulatory-Sandbox-for-FinTech-Experiments.aspx>

**An applicant submits a proposal to MAS with necessary supporting information on how the Sandbox evaluation criteria below can be fulfilled:**

- a. The FinTech solution is technologically innovative or applied in an innovative way;
- b. The FinTech solution addresses a significant problem or issue, or brings benefits to consumers or the industry;
- c. The Applicant has the intention and ability to deploy the FinTech solution in Singapore on a broader scale after exiting from the Sandbox;
- d. The test scenarios and outcomes of the Sandbox should be clearly defined, and the Applicant should report to MAS on the test progress based on an agreed schedule
- e. The appropriate boundary conditions should be clearly defined, for the Sandbox to be meaningfully executed while sufficiently protecting the interests of consumers and maintaining the safety and soundness of the industry;
- f. Major foreseeable risks arising from the FinTech solution should be assessed and mitigated; and
- g. An acceptable exit and transition strategy should be clearly defined in the event that the FinTech solution has to be discontinued, or can proceed to be deployed on a broader scale after exiting from the Sandbox

#### **Exiting from the Sandbox.**

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

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

MAS will review the application and approval will be granted on a case-by-case basis.

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

- d. both MAS and the Applicant are satisfied that the Sandbox has achieved its intended test outcome; and
- e. the Applicant can fully comply with the relevant legal and regulatory requirements

#### **Discontinuation of the Fintech Solution**

##### **The Fintech solution will be discontinued when:**

- a. MAS or the Applicant is not satisfied that the Sandbox has achieved its intended test outcomes;
- b. A critical flaw(s) has been discovered in the FinTech solution or the implementation process, and the Applicant acknowledges that the flaw cannot be reasonably resolved within the duration of the Sandbox;
- c. MAS terminates the Sandbox due to reasons such as the Applicant breaching any condition imposed for the duration of the Sandbox; or
- d. the Applicant has informed MAS of its decision to exit from the Sandbox at its own discretion.

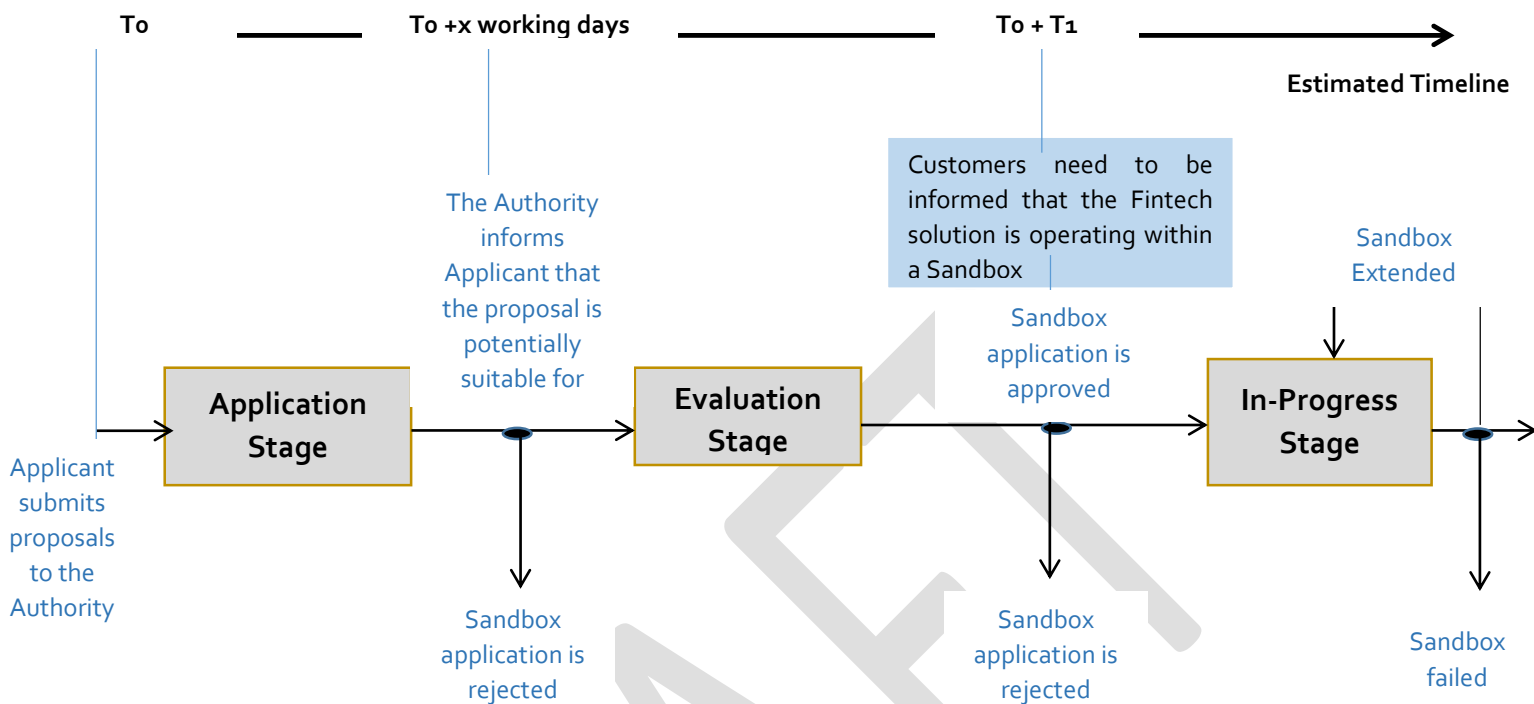


Table 4: MAS Application and Approval Process

*T<sub>1</sub> is the time required to complete the evaluation which is dependent on various factors such as complexity of the proposal and the specific legal and regulatory requirements involved.*

### Application and Approval Process Explained

Indicatively, the timetable for the Sandbox approval process will be as follows:

#### a. Application Stage

Upon receipt of a complete and final set of information for assessment, MAS will review the application and aim to inform the Applicant within 21 working days whether the matter is suitable for a Sandbox after MAS receives a complete and final set of information necessary for the assessment(**To**).

<sup>5</sup><http://www.mas.gov.sg/~media/MAS/News%20and%20Publications/Consultation%20Papers/Consultation%20Paper%20on%20FinTech%20Regulatory%20Sandbox%20Guidelines.pdf>



#### **b. Evaluation Stage**

At the “Evaluation Stage”, the time required to assess the proposal (T<sub>1</sub>) is dependent on its complexity and the specific legal and regulatory requirements involved. MAS may make further assessments before approving the Sandbox application. 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.

At the end of this evaluation stage, the Applicant will be formally notified in writing of the outcome of the Sandbox application.

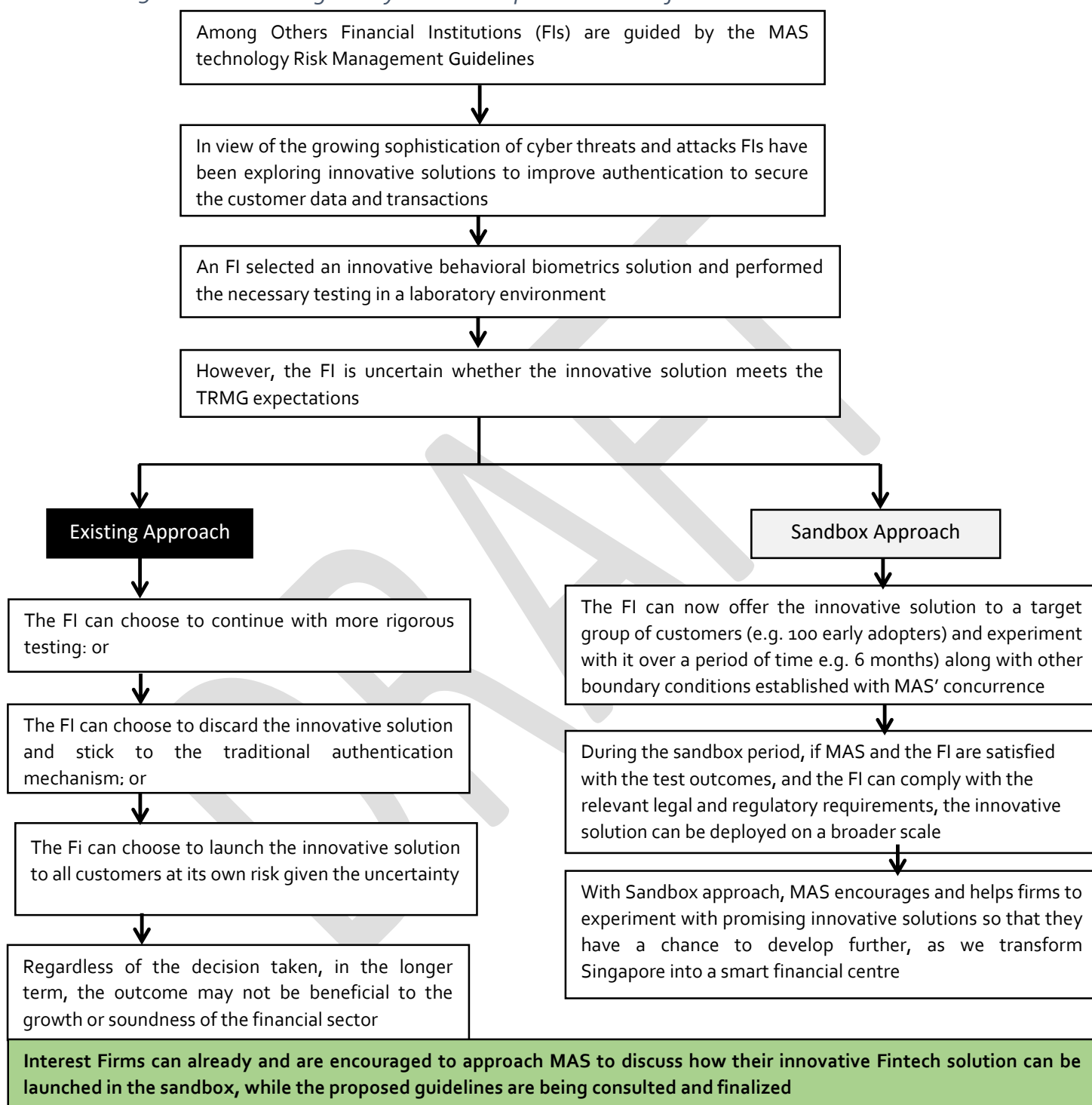
One of the key expectations of MAS when evaluating the application for the Sandbox is that there should be a communications plan for the relevant affected customers to be informed that they would be participating in the Sandbox. Affected customers should be told, amongst other things, of the duration of experimentation within the Sandbox, the boundary conditions and the risks involved.

#### **c. In-Progress Stage**

The Applicant would be informed in writing whether to proceed with the Sandbox. On approval of the Sandbox application, the Sandbox is launched into the In-Progress stage for a fixed duration, upon the expiry of which the Applicant must exit from the Sandbox.

## An Illustration on how the MAS<sup>6</sup> Fintech Regulatory Sandbox Can Encourage Experimentation of Innovative Fintech Solutions

Table 5: MAS Fintech Regulatory Sandbox Experimentation of Innovative Fintech Solution



<sup>6</sup><http://www.mas.gov.sg/News-and-Publications/Media-Releases/2016/MAS-Proposes-a-Regulatory-Sandbox-for-FinTech-Experiments.aspx>

### 2.2.1 MAS and FCA Comparative Eligibility Criterion

The table below compares the various criteria that will be considered by the MAS and the FCA when an institution applies to enter the regulatory sandbox in Singapore and/or the UK, respectively. Broadly, the criteria are similar, although there are certain areas where they diverge.

*Table 5: MAS and FCA Comparative Eligibility Criterion*

<b>MAS Evaluation Criteria / Non-Eligibility Circumstances</b>	<b>FCA eligibility criteria</b>
<b>Evaluation Criteria (a) – innovation</b> FinTech solution is technologically innovative or applied in an innovative way.	<b>“Genuine Innovation” Criteria</b> Innovation is ground-breaking or constitutes a significantly different offering in the market.
<b>Evaluation Criteria (b) – consumer / industry benefit</b> FinTech solution addresses a significant problem or issue, or brings benefits to consumers or the industry.	<b>“Consumer Benefit” Criteria</b> Innovation offers a good prospect of identifiable benefit to consumers (either directly or via heightened competition).
<b>Evaluation Criteria (c) – intent to broadly deploy</b> Applicant has the intention and ability to deploy the FinTech solution in Singapore on a broader scale following exit from the sandbox.	<b>“In Scope” Criteria</b> Applicant is looking to deliver innovation which may be a regulated business, or may support regulated businesses, in the UK. Under this criterion, it is a ‘negative indicator’ if the innovation does not appear to be intended for use in the UK.
<b>Evaluation Criteria (d) – clear testing plans</b> Test scenarios and outcomes from the sandbox should be clearly defined, and the applicant should report to the MAS on the test progress based on an agreed schedule.	<b>“Ready for Testing” Criteria</b> Business is ready to test in a live environment. This is a broad criterion, and a ‘positive indicator’ is that testing plans are well-developed with clear objectives, parameters and success criteria.
<b>Evaluation Criteria (e) – sandbox boundary conditions</b> The appropriate boundary conditions should be clearly defined in order for the sandbox to be meaningfully executed while sufficiently protecting the interests of consumers and maintaining the safety and soundness of the industry.	<b>N/A</b> The FCA’s sandbox is organized and deployed by the FCA, meaning that there is no need for firms to set out boundary conditions at the outset.
<b>Evaluation Criteria (f) – safeguarding against risks</b> Major foreseeable risks arising from the FinTech	<b>“Ready for Testing” Criteria</b> Another ‘positive indicator’ under this

solution are assessed and mitigated.	criterion that the applicant has sufficient safeguards in place to protect consumers and provide appropriate redress if necessary. This would necessarily include an assessment of foreseeable risks.
<b>Evaluation Criteria (g) – exit and transition strategy</b> An acceptable exit and transition strategy should be clearly defined in the event that the FinTech solution needs to be discontinued, or can proceed to be distributed on a broader scale after exiting the sandbox.	<b>“Ready for Testing” Criteria</b> An exit and transition strategy may assist in demonstrating that the innovation is ready for testing, although the FCA does not require anything as prescriptive.
<b>Non-Suitability Circumstance (a) – similarity to other offerings</b> FinTech solution is considered to be similar to those already offered in Singapore.	<b>“Genuine Innovation” Criteria</b> It will be a ‘negative indicator’ if there are numerous examples similar to the innovation already on the market.
<b>Non-Suitability Circumstance (b) – due diligence</b> Applicant has not conducted due diligence to test and verify the viability of the FinTech solution, such as testing the FinTech solution in a laboratory environment or obtaining external validation.	<b>“Ready for Testing” Criteria</b> It will be a ‘negative indicator’ if little or no testing has been conducted as at the date of the application to the sandbox.
<b>Non-Suitability Circumstance (c) – genuine need for sandbox</b> Applicant can reasonably and effectively experiment with the FinTech solution in a laboratory or test environment.	<b>“Necessity” Criteria</b> Applicant has a genuine need to test the innovation on consumers, and in the FCA sandbox. The FCA indicates that a need for live testing (as opposed to lab testing) must be shown.
<b>Non-Suitability Circumstance (d) – intent to broadly deploy</b> Applicant has no intention to deploy the FinTech solution in Singapore on a broader scale after exiting the sandbox.	<b>“In Scope” Criteria</b> As described above. It will be a ‘negative indicator’ in the innovation does not appear to be intended for use in the UK.

### 2.3 Australia ASIC

The key features of the ASIC proposal include the following:

#### a. Eligibility for Exemption

Only new businesses located in Australia are eligible. The exemption will not apply to existing AFS licensees.

#### **b. Time period**

ASIC proposes to limit the AFS licensing exemption to one six-month period, with no option for extension.

#### **c. Eligibility Requirements**

No eligibility requirements for ASIC's proposed sandbox, ie businesses are not required to show their idea is a genuine innovation or will provide a consumer benefit. However, potential applicants will need to consider the need for sandbox sponsorship. Also, while subject to consultation, ASIC currently proposes that only businesses providing limited services will qualify.

#### **d. Conditions for Exemption**

**The AFS licensing exemptions will only apply to:**

- giving financial advice and arranging for other persons to deal in relation to liquid products such as listed or quoted Australian securities; simple managed investment schemes and deposit products. Businesses that do not satisfy these conditions will be able to request an individual exemption tailored to their circumstances;
- providing services to no more than 100 retail clients, each with a maximum exposure limit of \$10,000 and total exposure of all clients (wholesale and retail) of less than \$5 million.

#### **e. Consumer Protections**

The testing business must be a member of an ASIC-approved external dispute resolution scheme and have complied with the best interest's duty and conflicted remuneration provisions as if the business were an AFS licensee. Testing businesses must also clearly disclose that financial services are being provided in a testing environment.

#### **f. Compensation**

The testing business must maintain adequate compensation arrangements for participating retail clients. ASIC raises the possibility in its consultation paper that fintech businesses proposing to test in the sandbox may be unable to obtain insurance to meet this requirement and this is a matter on which it seeks industry views.

#### **g. Sandbox Sponsorship**

The testing business must be sponsored by an organization (for example a not-for-profit industry association) recognized by ASIC. Sponsors can only sponsor a business if that business is operated by fit and proper persons and they have conducted a preliminary assessment that the testing business's proposed business model is reasonably sound and does not present significant risks of consumer detriment.

#### **h. Completion of testing**

Once the test is complete, ASIC expects information from the testing business about their experience and the services provided by ASIC. However, ASIC does not propose to require ongoing reporting. If a business intends to continue operating, it will need to apply for an AFS license.

ASIC's proposed regulatory sandbox licensing will be very welcome news for fintech startups as it will give them an opportunity to test and prove their business models in a "safe space" to determine whether their ideas are viable. The exemption also has broader benefits for the economy as a whole as it has the potential to reduce the time and cost of getting new ideas to market and promote competition which will ensure that consumers are exposed to the most innovative and technologically advanced products and services.

However, ASIC's proposed licensing exemption is not without limitation or conditions. Some key limitations and difficulties which are apparent from the current proposal include:

- The limits on the nature of the businesses that can utilize the sandbox. The existing proposed limitations would mean that many of the fintech businesses which the authors have advised to date would not be able to utilize the new sandbox regime. This would be a disadvantage faced by Australian fintech startups to those in other jurisdictions which do

not have artificial limitations placed on the nature of the product that can be tested using the new regime.

- The sponsorship requirement, which could have definite value, but will only work if there are a sufficient number of such organizations so that they do not operate to limit competition in the sector (especially against those who have already been sponsored).
- The concept of the exemption only being available for six months, without extension. Given the cost and expense of hiring staff, locating premises, building technology and otherwise completing the tasks necessary for the launch of a new fintech business, there would be value in allowing a business to continue to trade while ASIC considers its regulatory applications (including applications for relief which may be required to deal with existing laws which do not allow the new business to operate as proposed). If the approval is not forthcoming, then the exemption can expire.

### 2.3.1 Jurisdictional Comparison of the Regulatory Sandbox Key Features

Criteria	Comparison
Who will be eligible for the exemption?	<p><b>Australia:</b> Only new businesses located in Australia are eligible. The exemption will not apply to existing AFS licensees.</p> <p><b>UK:</b> Both authorised and unauthorised businesses are eligible to use the sandbox. However, it only applies to authorised businesses to the extent that they request individual guidance, a waiver to the rules or a no-action letter from the FCA in relation to tests, which is similar to the arrangements in place for existing businesses under the current Australian regulatory framework.</p> <p><b>Singapore:</b> Both new and existing businesses are eligible.</p>
Time period	<p><b>Australia:</b> ASIC proposes to limit the AFS licensing exemption to one six-month period, with no option for extension.</p> <p><b>UK:</b> The FCA considers three to six months to be an appropriate duration for businesses to be granted restricted authorisation to test their ideas. It is unclear whether any extensions will be permitted.</p> <p><b>Singapore:</b> It appears the time period will be set by the business applying for the exemption and can be extended by application.</p>

<b>Eligibility requirements</b>	<p><b>Australia:</b> No eligibility requirements for ASIC's proposed sandbox, ie businesses are not required to show their idea is a genuine innovation or will provide a consumer benefit. However, potential applicants will need to consider the need for sandbox sponsorship (see sandbox sponsorship below). Also, while subject to consultation, ASIC currently proposes that only businesses providing limited services will qualify (see conditions of exemption below).</p> <p><b>UK:</b> applications must meet specific eligibility criteria including that the product or service must be a genuine innovation and there is a consumer benefit. Further it is apparent that the FCA intends firms to 'compete' to be in the regulatory sandbox with specified periods for applications to be submitted and the intention that only a limited number of firms will be in the programme from time to time. The UK does not restrict the sandbox to persons who are only advising or arranging dealings in relation to liquid and simple products.</p> <p><b>Singapore:</b> Similar to the UK and also includes a requirement that applicants show they have an intention and ability to deploy the fintech solution in Singapore on a broader scale after exiting from the sandbox.</p>
<b>Conditions of exemption</b>	<p><b>Australia:</b> The AFS licensing exemptions will only apply to:</p> <ul style="list-style-type: none"> <li>• giving financial advice and arranging for other persons to deal in relation to liquid products such as listed or quoted Australian securities; simple managed investment schemes and deposit products. Businesses that do not satisfy these conditions will be able to request an individual exemption tailored to their circumstances;</li> <li>• providing services to no more than 100 retail clients, each with a maximum exposure limit of \$10,000 and total exposure of all clients (wholesale and retail) of less than \$5 million.</li> </ul> <p><b>UK:</b> The size of the test and number of participating customers is strictly limited. However, the FCA has stated that the number of customers must be big enough to generate statistically significant data.</p> <p><b>Singapore:</b> Unclear as not set out in the consultation paper.</p>
<b>Consumer protections</b>	<p><b>Australia:</b> The testing business must be a member of an ASIC-approved external dispute resolution scheme and have complied with the best interest's duty and conflicted remuneration provisions as if the business were an AFS licensee. Testing businesses must also clearly disclose that financial services are being provided in a testing environment.</p> <p><b>UK:</b> Testing businesses can only test their ideas on customers</p>



	<p>who have given informed consent to be included in tests. The FCA has said that it will agree customer safeguards with businesses on a case-by-case basis.</p> <p><b>Singapore:</b> Unclear as not set out in the consultation paper.</p>
<b>Compensation</b>	<p><b>Australia and UK:</b> The testing business must maintain adequate compensation arrangements for participating retail clients. ASIC raises the possibility in its consultation paper that fintech businesses proposing to test in the sandbox may be unable to obtain insurance to meet this requirement and this is a matter on which it seeks industry views.</p> <p><b>Singapore:</b> Unclear as not set out in the consultation paper.</p>
<b>Sandbox sponsorship</b>	<p><b>Australia:</b> The testing business must be sponsored by an organisation (for example a not-for-profit industry association) recognised by ASIC. Sponsors can only sponsor a business if that business is operated by fit and proper persons and they have conducted a preliminary assessment that the testing business's proposed business model is reasonably sound and does not present significant risks of consumer detriment.</p> <p><b>UK and Singapore:</b> No requirements for testing businesses to be sponsored.</p>
<b>Completion of testing</b>	<p><b>Australia:</b> Once the test is complete, ASIC expects information from the testing business about their experience and the services provided by ASIC. However, ASIC does not propose to require ongoing reporting. If a business intends to continue operating, it will need to apply for an AFS licence.</p> <p><b>UK:</b> Testing businesses are required to submit ongoing reports (every week) to the FCA and a final written report to the FCA about the outcomes of testing. After the FCA receives and reviews the final report, the business will decide whether it will offer the new service or product outside of the sandbox. It will then need to apply to have restrictions lifted in order to carry on the regulated business.</p> <p><b>Singapore:</b> The testing business can only deploy its solution on a broader scale if both it and MAS are satisfied the sandbox has achieved its test outcomes and the business can fully comply with the relevant legal and regulatory requirements.</p>

*Table 6: Jurisdictional Comparison of Regulatory Sandbox Key Features*

### **2.3.2 Impact of the Regulatory Sandbox in Other Jurisdictions**

#### **a. Singapore**

The establishment of a regulatory sandbox regime is a positive development to be welcomed, and is an important step by the MAS to encourage technological innovation in the financial services industry.

For established financial institutions, start-ups and emerging companies, the sandbox will provide an opportunity to develop new and more efficient financial services and products, and innovative ways of servicing customers.

#### **b. United Kingdom**

The regulatory sandbox represents more than simply a co-operative approach to regulation of financial products and services. It presents an opportunity for banking and financial institutions in the UK, as well as start-ups, to test emerging technologies and ideas that have the power to reshape the way customers consume financial services— from innovative payment methods to custom cryptocurrencies and everything in between.

Presently, many businesses have struggled to find a safe way to implement these technologies given the unknowns in the regulatory environment and the risk of public scrutiny. For businesses fortunate enough to obtain sandbox approval, there is now an exciting opportunity to see how their new technologies can be deployed in the real world and test whether the sandbox approach validates the optimism that has pervaded Project Innovate up until now.

The regulatory sandbox is an opportunity to engage with the industry more broadly and also it is a move to explore the potential for industry-led rather than FCA -led innovation.

### **2.3.3 Investor Interest Protection and Compensation in the Regulatory Sandbox**

Ideally, the testing business must maintain adequate compensation arrangements for participating retail clients.

There are a number of approaches that the Authority can take to protect customers that participate in sandbox testing

**Approach 1:**

As in clinical trials, sandbox firms can only test their new solutions on customers who have given informed consent to be included in testing. Customers are notified of the potential risks and the available compensation.

**Approach 2:**

The Authority agrees on a case-by-case basis the disclosure, protection and compensation appropriate to the testing activity.

**Approach 3:**

Customers have the same rights as customers who engage with other authorized firms (e.g. Complain to firm, then the relevant entity e.g. CMFIU and have access to the ICF if a firm fails).

**Approach 4:**

Businesses undertaking sandbox trials are required to compensate any losses (including investment losses) to customers and must demonstrate that they have the resources (capital) to do that.

In terms of an individual's firm journey and the Authority's involvement, all would depend on the specific options used, the regulatory status of the firm, the solution being tested and the extent of consumer involvement.

**2.3.4 Legal and Regulatory Issues Involved with the Sandbox**

The following are examples of the legal and regulatory requirements that MAS is prepared to consider relaxing for the duration of the Sandbox, as well as those which MAS intends to maintain.

The examples outlined below are not exhaustive.

Depending on the Fintech solution, the Applicant involved and the proposal made to MAS, MAS will determine the specific legal and regulatory requirements which it is prepared to relax for each case.

**To Maintain Requirements**

- a. Confidentiality of customer information
- b. Fit and proper criteria particularly on honesty and integrity
- c. Handling of customer's money and assets by intermediaries
- d. Prevention of money laundering and countering the financing of terrorism

### **Possible to Relax Requirements**

- a) Asset maintenance requirement
- b) Board Composition
- c) Cash balances
- d) Credit rating
- e) Financial soundness
- f) Fund Solvency and capital adequacy
- g) License fees
- h) Management Experience
- i) MAS Guidelines, such as technology risk management guidelines
- j) Minimum Liquid Assets
- k) Minimum Paid-up capital
- l) Relative size
- m) Reputation
- n) Track Record

### **Way Forward**

To ease the burden of regulatory compliance, regulations will be tailored to mitigate the specific risks associated with the Fintech application. Fintech participants authorized by the Authority to carry on a regulated activity within the Reglab will not be subject to the standard regulations and rules. However, such rules will apply to other businesses unlicensed by the authority and technology firms with a keen interest in financial services. Additionally, a customized set of rules may be selectively applied based on the risks identified for the Fintech Business model. These rules may be adapted from the existing regulations and rules under the Authority.

### **3.0 Principal Based Regulations Linkage with the Regulatory Sandbox**

The regulatory sandbox is well suited for a vast array of products and services, some of which may require a change in or the development of new legal and regulatory provisions, and in practical terms, time may at times be a constraint due to the rigors of the processes involved in

such change or development. Since it would therefore be impractical in some instances to do so in a short time, the direct effect or implication should not be a shelving of the products and services that are subject the sandbox regime. On the contrary, what is suggested for such instances, would be the application of a different approach to regulation.

That is, a reliance on principles based (or outcomes based) regulation, for such products and services. This would mean a reliance on already existing well established principles, thereby ensuring that the novel products and services are still subject to a regulatory regime and the necessary monitoring that ensures proper conduct and adequate soundness. Such a measure may even be interim as more detailed or prescriptive rules are developed over time as the impact and scope of the products and services in the industry are assessed.

It is important to note, since the approach to regulation in such cases would be outcomes based, this approach does not suggest that the products and services will be functioning in a regulatory vacuum or that there will be a wide berth for market players due to the perceived lack of a stringent regime. On the contrary, it would mean that there will have to be a close working relationship between the market players whose products and services are subject to the sandbox, and the regulator, in order to achieve the established outcomes. Boards, Chief Executives, and senior management will be required to engage effectively in the substance of the outcomes that are to be achieved. It is therefore, arguably, a more involving process, especially considering that a failure to achieve outcomes would invite regulatory repercussions.

Key examples of principles or outcomes include:

1. Integrity – A firm must conduct its business with integrity.
2. Skill, care and diligence – A firm must conduct its business with due skill, care and diligence.
3. Management and control – A firm must take reasonable care to organise and control its affairs responsibly and effectively, with adequate risk management systems.
4. Financial prudence – A firm must maintain adequate financial resources.
5. Market conduct – A firm must observe proper standards of market conduct.
6. Customers' interests – A firm must pay due regard to the interests of its customers and treat them fairly.

7. Communications with clients – A firm must pay due regard to the information needs of its clients, and communicate information to them in a way which is clear, fair and not misleading.
8. Conflicts of interest – A firm must manage conflicts of interest fairly, both between itself and its customers and between a customer and another client
9. Customers: relationships of trust – A firm must take reasonable care to ensure the suitability of its advice and discretionary decisions for any customer who is entitled to rely upon its judgment.
10. Clients' assets – A firm must arrange adequate protection for clients' assets when it is responsible for them.
11. Relations with regulators – A firm must deal with its regulators in an open and cooperative way, and must disclose to the regulator appropriately anything relating to the firm of which the regulator would reasonably expect notice.

## **4.0 Research Findings, Recommendations and Way Forward**

### **4.1 Research Findings**

This regulatory approach provides flexibility in terms of specific regulatory requirements and procedures. However, certain intended outcomes are important to ensure integrity and acceptance of fintech initiatives. These outcomes may include, but are not limited to –

- a. preserving safety and soundness of individual financial institutions that will promote monetary and financial stability;
- b. promoting fair treatment of consumers;
- c. preventing money laundering and countering terrorism financing;
- d. protecting the confidentiality of customer information;
- e. promoting the safety, reliability and efficiency of payment systems and payment instruments

In considering an application to deploy and participate in Sandbox and the types and extent of regulator flexibilities that may be accorded to the financial institutions or fintech companies operating in a Sandbox, the organization should take into account the following

- a) The potential benefits of the proposed product, service or solution;
- b) The potential risks and mitigating measures; and
- c) The integrity, capability and track record of the financial institutions or fintech companies.

To expedite decision making, organizations that seek to implement the sandbox should evaluate whether it can streamline some of its licensing procedures, where appropriate, or develop new procedures where existing procedures may not work for certain innovative activities.

Additionally, we should consider the possibility of creating a centralized office on innovation which could serve as a forum to vet ideas before an intermediary, bank or nonbank makes a formal request or launches an innovative product or service.

The sandbox gives limited authorization for fintech startups to test new products and models with a small number of actual users in a simulated environment. This gives them more time to build and test business ideas, instead of spending time navigating complex financial services

regulations. Focusing on regulatory compliance eats up seed capital before anyone knows whether an idea could work and be scaled up. Participants are nonetheless required to follow rules on marketing, privacy, anti-money laundering, disclosure, and management of conflicts of interest.

Piloting a product or business model in the sandbox will help companies manage their regulatory risk during testing. Restricting transaction size will limit any large adverse consequence of product or model failure. And this approach also allows regulators to test new financial products and services for risk and compliance, along with creating preconditions for ensuring competition and successful uptake. It will also improve access to sustainable equity financing.

Only when the risks of applying new technology become material would companies be required to obtain full regulatory approval. Once a business grows and reaches a certain critical mass, it could pose significant potential impact on financial stability through possible operational disruption of core financial institutions or infrastructure, or badly affect a large number of consumers.

A unique aspect is the agreement to cooperate between regulatory bodies in the UK, Singapore and Australia to share information and implement a referral process. Thus, fintech firms from these jurisdictions are not likely to face regulatory barriers when entering each other's markets.

Developing country experience shows that traditional financial players, when restricted by regulations, do not meet end-user needs. Enabling new DFS models requires an open-minded approach to innovation, with sufficient certainty over a legal framework that protects users and clearly assigns liabilities. If regulators understand the product and their risks, they can tailor the regulatory regime to specific risk characteristics.



## 4.2 Recommendations

The regulatory sandbox represents more than simply a co-operative approach to regulation of financial products and services. It presents an opportunity for banking and financial institutions in the Kenya, as well as start-ups, to test emerging technologies and ideas that have the power to reshape the way customers consume financial services— from innovative payment methods to custom cryptocurrencies and everything in between.

Until now, many businesses have struggled to find a safe way to implement these technologies given the unknowns in the regulatory environment and the risk of public scrutiny.

There is a crucial need for the regulatory sandbox in the Kenyan capital markets and financial services industry as a whole as it will serve to ensure: -

- a) Reduced time-to-market at potentially lower cost
- b) Contained consequences of failure
- c) Better access to finance
- d) More innovative products have a chance to reach the market
- e) Regulatory relief
- f) Keeping the costs down
- g) Reaching the best solution for the customer

Recently, On October 21<sup>st</sup> 2016, the Capital Markets Authority of Kenya (CMA) and the Australian Securities and Investments Commission (ASIC) signed a Co-operation Agreement which aims to promote innovation in financial services in their respective markets.

The agreement was signed in the margins of the Board meeting of the International Organization of Securities Commissions (IOSCO) held in Hong Kong and sets up a framework for co-operation between the CMA and ASIC in the expanding space of innovation in financial services. The parties agreed to share information in their respective markets including on emerging market trends and regulatory issues arising from the growth in innovation.

The agreement is a great milestone towards sharing best practices in terms of how to address regulatory issues pertaining to innovation in financial services and establishment of a Regulatory Sandbox that proposes an environment to allow start-ups to test concepts without a license.

Kenya needs to implement the following approaches towards responsible innovation and the development of a sandbox, which are collectively intended to facilitate the ongoing development of the CMA's comprehensive regulatory sandbox framework.

**a. Virtual sandbox**

A **virtual sandbox** could be introduced by industry. This would be an environment to enable firms to test their solutions virtually without entering the real market. A number of large firms already have similar solutions for testing technologies but these operate separately from each other and with data only from the owners of these sandboxes. The virtual sandbox could be, for example, a **cloud-based** solution set up and equipped in collaboration between the industry, which businesses then could customize for their products or services

A virtual sandbox could be used by all innovators regardless of whether they are authorized or not.

It will probably be most useful for small start-ups who cannot build their own sandboxes.

**b. Sandbox umbrella**

A not-for-profit company could be set up by industry to act as a sandbox umbrella that allows unauthorized innovators to offer their services under its shelter as appointed representatives.

The umbrella company would need to be authorized with appropriate permissions and then supervised by the Authority as other authorized firms. The umbrella company would monitor its appointed representatives.

This option would take some time to implement but it would be faster and simpler for innovators to use than the restricted authorization option.

It is worth noting that the appointed representative regime is not available for all regulated activities, so not all innovative businesses would be able to use the sandbox umbrella.

**c. Options that would require regulatory change:**

So far there are two potential options identified as feasible:

- **New Regulated Activity:**

This option could enable CMA to create a new sandbox regime (with new authorization requirements and rules) that is more flexible than the current regulatory regime in Kenya.

The drawbacks to this option are that firms still need to become authorized before being able to test and this could take some time.

- **Amending specific sections of the CMA Act:**

The CMA's power to issue waivers is limited in relation to requirements of the law. The Authority could consider changing the waiver conditions (if need-be) to make it easier to waive rules for a firm within the sandbox. This could be achieved by introducing a new test for sandbox firms.

Additionally, in order for successful fintech innovation there is need to establish Liaison with Nailab and Ihub platforms with respect to modus operandi for possible benchmarking engagements.

There is also need to develop a work plan defining relevant changes required to streamline the concept and the steps required.

### **Way Forward**

- There will be need for policy framework to Support responsible innovation
- There is need for a regulatory environment that provides consumers with confidence while not unnecessarily restricting the opportunities for innovation.

## 5.0 Conclusion

- Stringent regulatory and compliance requirements have previously been more of an obstacle than a facilitator for potential innovators who want to focus on making financial services more reliable, faster, more convenient and at lower cost, but, this is beginning to change. Many institutions are now rethinking their business models due to regulatory pressures and this has also affected their technology infrastructures. Faced with tighter budgets, firms are now more willing to turn to innovative technology to improve efficiency and reduce costs. The sandbox would offer a home to these new innovations that will translate to ameliorated business.
- The sandbox could see businesses thrive better as a result of enhanced innovation in the capital markets. Such an initiative will be of utmost benefit to the economy in more ways than one. Innovation will prompt competition and this time and age, healthy competition is required for enhanced growth of the markets.
- The Kenyan Capital Markets is well positioned from a capital, regulatory, technology, and perspective to invest and partner in FinTech with objectives to shape a next-generation organization that ensures a robust capital market infrastructure for the benefit of its clients. FinTech can help incumbents to transition to new business models and access additional growth pockets.

## References

ADGM policy consultation on a regulatory Framework to support participants Deploying innovative technology within the Financial Services Sector. Available at:

[http://www.adgm.com/media/70182/adgm-consult-paper-no-2-of-2016\\_reg-framework-for-fintech-final.pdf](http://www.adgm.com/media/70182/adgm-consult-paper-no-2-of-2016_reg-framework-for-fintech-final.pdf)

Financial Conduct Authority(2015). *Regulatory Sandbox*. Available at: <https://www.fca.org.uk/static/documents/regulatory-sandbox.pdf>

Financial Conduct Authority (2016a). *Innovate Finance Global Summit*. Available at: <https://www.fca.org.uk/news/innovate-finance-global-summit>

Financial Conduct Authority(2016b). *Download Default standards for sandbox testing parameters*. Available at: <http://www.fca.org.uk/your-fca/documents/default-standards-for-sandbox-testing-parameters>

<https://www.fca.org.uk/publications/documents/regulatory-sandbox>

[http://www.bonddickinson.com/sites/default/files/financial\\_services\\_updates\\_regulatory\\_sandbox\\_dec\\_15.pdf](http://www.bonddickinson.com/sites/default/files/financial_services_updates_regulatory_sandbox_dec_15.pdf)

<http://www.adgm.com/mediacentre/press-releases/abu-dhabi-global-market-sets-out-proposal-for-fintech-regulatory-framework-in-the-uae/>

<https://www.fca.org.uk/news/speeches/innovation-financial-services>

Monetary Authority of Singapore. *Fintech Regulatory Sandbox Guidelines*. Available at: <http://www.mas.gov.sg/~media/MAS/News%20and%20Publications/Consultation%20Papers/Consultation%20Paper%20on%20FinTech%20Regulatory%20Sandbox%20Guidelines.pdf>

## Appendix 1: An Example of a sandbox Application<sup>7</sup> - Monetary Authority of Singapore

### Scenario

A firm has developed an innovative FinTech solution, using a combination of existing and new technology, for an activity regulated by MAS. Based on its research, the solution is able to address an existing gap in the financial sector, and the firm intends to deploy the solution in Singapore. The firm has performed rigorous due diligence on the solution in its laboratory environment. However, the firm is uncertain if all major foreseeable risk scenarios have been effectively addressed given that there was no precedent to guide the testing.

In addition, the firm is still at the early growth stage, and is unable to fully comply with existing legal and regulatory requirements.

It is looking for certain exemptions to be granted by MAS.

### Existing Approach

The firm submits a license application to MAS and indicates the specific exemptions required. Given the novelty of the solution and that the firm does not have a track record comparable with established FIs, MAS is likely to take a longer time to understand and clarify the potential risks.

Meanwhile, the firm can only wait, and the uncertainty remains.

With the existing approach, the scenario could potentially develop into the following outcomes, whereby promising innovations were being stifled and the doors to potential opportunities were being closed:

- A dead-lock or prolonged processing with no certainty ahead;
- The firm may drop the idea and stick to business-as-usual; or
- The firm may consider deploying the solution outside of Singapore where the regulatory environment is perceived to be more conducive.

### Sandbox Approach

The firm learns that MAS encourages FinTech innovations through the adoption of a Sandbox, and prepares the proposal in accordance to the Guidelines.

---

<sup>7</sup><http://www.mas.gov.sg/~media/MAS/News%20and%20Publications/Consultation%20Papers/Consultation%20Paper%20on%20FinTech%20Regulatory%20Sandbox%20Guidelines.pdf>

As the firm does not have a contact point with any MAS Review Officer, it submits the proposal and supporting information to xxxxxx@mas.gov.sg

MAS receives the proposal and assesses it against the Sandbox evaluation criteria, including the specific legal and regulatory requirements to be relaxed for the duration of the Sandbox.

<b>Evaluation Criteria</b>	<b>Assessment (Illustrative and No-Exhaustive)</b>
Is the Fintech Solution Technologically innovative?	The solution is not yet commonly used in the financial sector, though it has received increasing adoption in other verticals. The solution is expected to improve customer experience and streamline operations without heavy investment. The Applicant applies for certain legal and regulatory requirements to be relaxed for the duration of the Sandbox, as it is still growing and is unable to fully meet the relevant legal and regulatory requirements now.
Does the Fintech solution address an issue or bring benefits to consumers or the industry?	
Does the applicant have the intention and ability to deploy the solution in Singapore on a broader scale after exiting from the sandbox?	The Applicant has recently secured \$5m funding, including investment by a renowned venture capital firm. It has doubled its headcounts over the last 2 years, and has provided a business plan and roadmap to deploy the solution in Singapore on a broader scale
Are the test scenarios and outcomes clear?	The Sandbox will be limited to 50 customers and run for a period of 6 months to measure improvements in customer experience and to validate the risk exposure and mitigation measures.
Are the boundary conditions appropriate?	
Are major foreseeable risks assessed and mitigated?	The solution has been tested under various risk scenarios in the laboratory environment.

	Is there a clear exit and transition strategy	In the event that the solution has to be discontinued, the Sandbox customers will be migrated over to the existing platforms and processes	
--	---	--	--

To facilitate the firm with its business and resource planning, MAS will inform the Applicant on whether the proposal is potentially suitable for a Sandbox within 21 working days.

MAS continues with the evaluation and clarification with the firm. Assuming that MAS is satisfied with the proposal, the firm would be informed in writing to proceed with the Sandbox.