

Early Lessons On Regulatory Innovations To Enable Inclusive FinTech: Innovation Offices, Regulatory Sandboxes, and RegTech



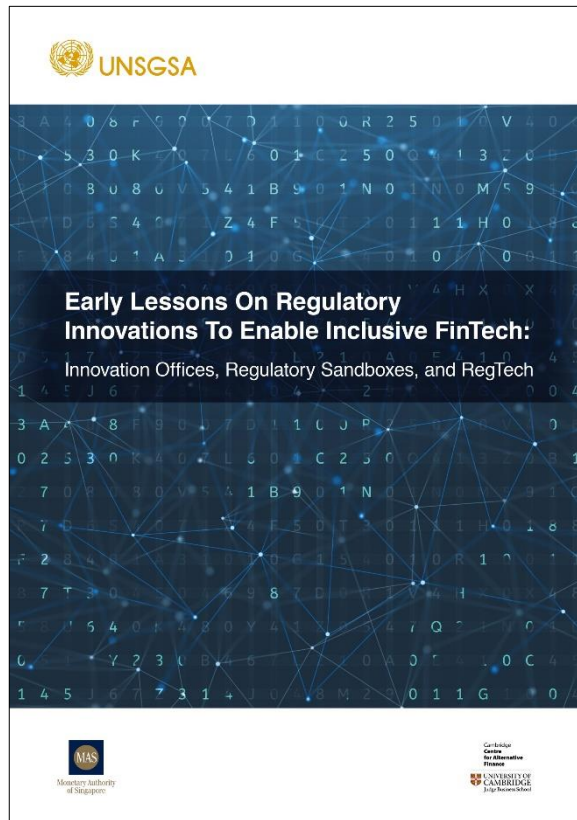
Monetary Authority
of Singapore

Cambridge
**Centre
for Alternative
Finance**



UNIVERSITY OF
CAMBRIDGE
Judge Business School

Introduction



This summary presentation is extracted from the report by the FinTech Working Group of the United Nations Secretary-General's Special Advocate for Inclusive Finance for Development (UNSGSA) and the Cambridge Centre for Alternative Finance (CCAF) at the University of Cambridge Judge Business School entitled *Early Lessons on Regulatory Innovations To Enable Inclusive FinTech: Innovation Offices, Regulatory Sandboxes and RegTech*. The report was made possible with the support of the Monetary Authority of Singapore (MAS).

Using empirical data which include interviews with more than 40 regulatory authorities in over 20 jurisdictions, this report examines the potential impact of regulatory innovation on inclusive FinTech and distils early lessons learned. It also proposes Implementation Considerations for authorities seeking to enable inclusive FinTech through innovative regulatory initiatives.

CONTACT




























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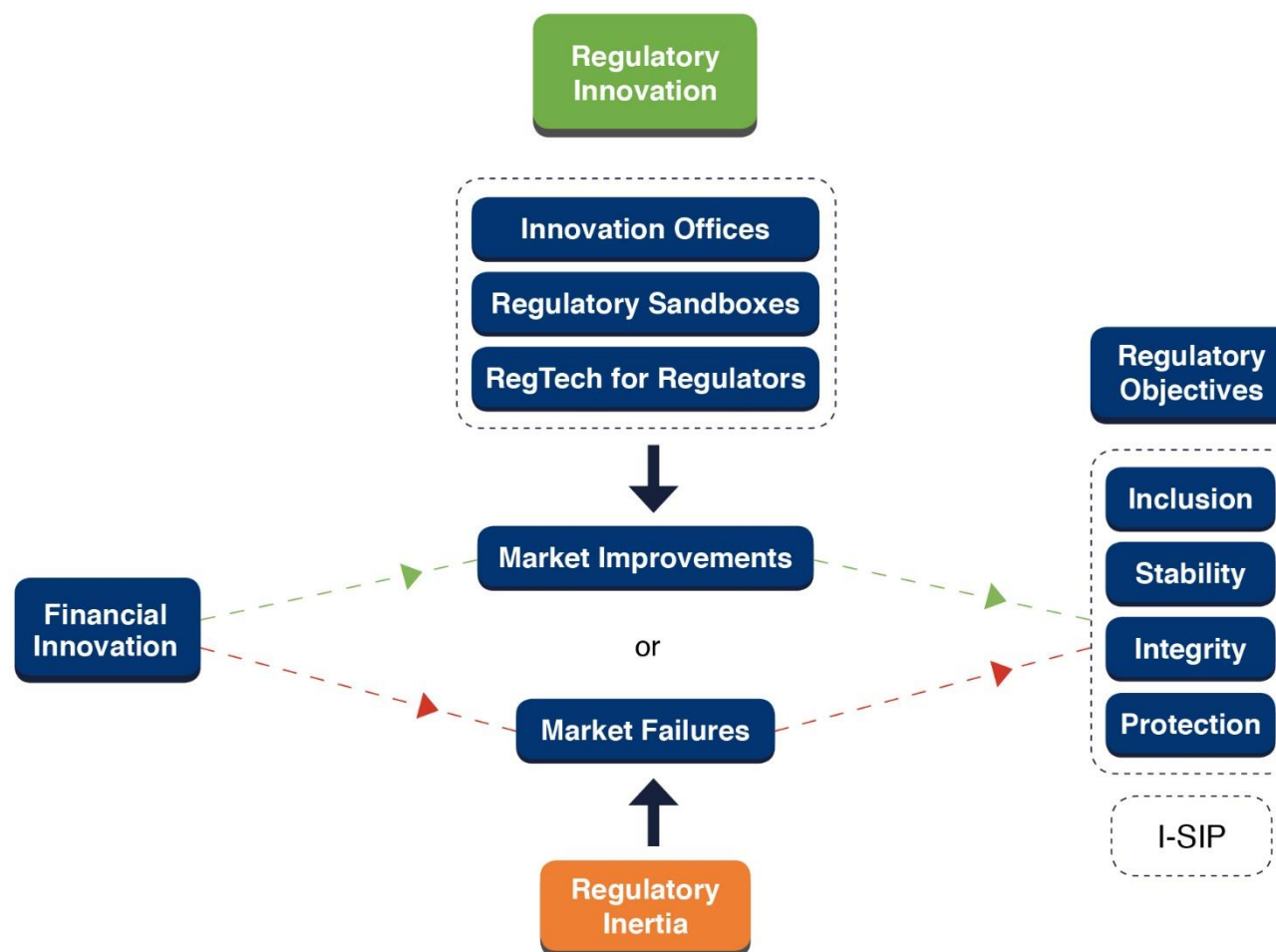
Financial Innovation and Financial Inclusion

Technology-enabled innovation in financial services (**FinTech**) has grown rapidly in the past decade. By providing access to and enabling active use of affordable financial services, financial inclusion can generate significant benefits for the unbanked and underbanked by improving access to finance and lowering delivery costs. However, FinTech can also present regulatory challenges for advanced, emerging and developing economies.

		New Business Models / Financial Products	Technology / Products	Examples of Key Benefits	Examples of Key Challenges/ Risks
LEGEND  Mobile / Internet  Cloud computing  AI, ML Big Data  Blockchain  Internet of Things (IoT)	Payments	1 Mobile Money - P2P Transfers	  	<ul style="list-style-type: none"> Simple, more reliable, cost effective and faster than other methods Can help lift people out of poverty 	<ul style="list-style-type: none"> Fraud risk from agents Lack of interoperability Relatively low active usage rates
		2 Digital Payments & Remittances	  	<ul style="list-style-type: none"> Lower costs, higher transparency and higher privacy Significant savings in time and travel costs 	<ul style="list-style-type: none"> Data security risks Providing personal information which can be lost or stolen
	Lending	3 Credit Risk Assessment	  	<ul style="list-style-type: none"> Access to loans, which was not possible with traditional credit risk assessment models 	<ul style="list-style-type: none"> May create gender bias and/or income inequality Spurious correlations from the data
		4 Alternative Lending / P2P Lending	    	<ul style="list-style-type: none"> Access to loans to unbanked and underbanked Faster and more efficient 	<ul style="list-style-type: none"> Higher borrowing costs when compared to bank loans Risk of over-indebtedness
	Savings & Insurance	5 Digital Savings	  	<ul style="list-style-type: none"> Lower costs, increased liquidity and higher transparency Lower risk of theft 	<ul style="list-style-type: none"> Significant customer financial capability required Regulation / protection of the float
		6 Digital Insurance	    	<ul style="list-style-type: none"> Lower costs, increased liquidity and higher transparency Faster and more efficient 	<ul style="list-style-type: none"> Significant customer financial capability required

Source: UNSGSA FinTech Working Group and CCAF (2019)

Financial Innovation, Financial Inclusion and Regulatory Innovation



Source: UNSGSA FinTech Working Group and CCAF (2019)

A number of regulators in advanced, emerging and developing economies have responded to such challenges by innovating themselves. These innovative regulatory initiatives include **innovation offices**, **regulatory sandboxes**, and **RegTech** for regulators. Adapting the I-SIP framework (CGAP, 2012), the figure above depicts how regulatory innovation can lead to market improvements and further regulatory objectives.

Innovative Regulatory Initiatives Around the World

Innovative regulatory initiatives have become increasingly common around the world over the last five years. The figure below illustrates jurisdictions that have developed such initiatives.



Source: UNSGSA FinTech Working Group and CCAF (2019)

Innovation Offices

An innovation office is a dedicated function within a regulator which engages with, and provides regulatory clarification to, financial services providers that seek to offer innovative products and services. They are a particularly compelling initial option for capacity-constrained regulators. The figure opposite highlights existing or informal innovation offices and regulator/central bank linked accelerators.



Sources: UNSGSA FinTech Working Group and CCAF (2019) and European Supervisory Authorities (2019)

Innovation Offices

Innovation offices and financial inclusion

By providing a channel that enables innovators to engage with regulators to better understand the regulatory framework and regulatory requirements, innovation offices can help reduce regulatory uncertainty. Through early engagement with innovators developing new products, services and business models, they can advise and inform on the relevant consumer protection safeguards required. Thus, innovation offices can encourage new entrants, and promote both innovation and competition, in turn promoting financial inclusion.

Innovation offices - lessons learned

Innovation offices facilitate mutually beneficial dialogue

Innovation offices facilitate international regulatory knowledge exchange on financial innovation

Innovation offices deliver most impact when integrated within the regulatory ecosystem

Innovation offices are only as good as their resources

Innovation offices are a catalyst for a pro-innovation culture

Leadership and institutional engagement are critical enablers of innovation offices

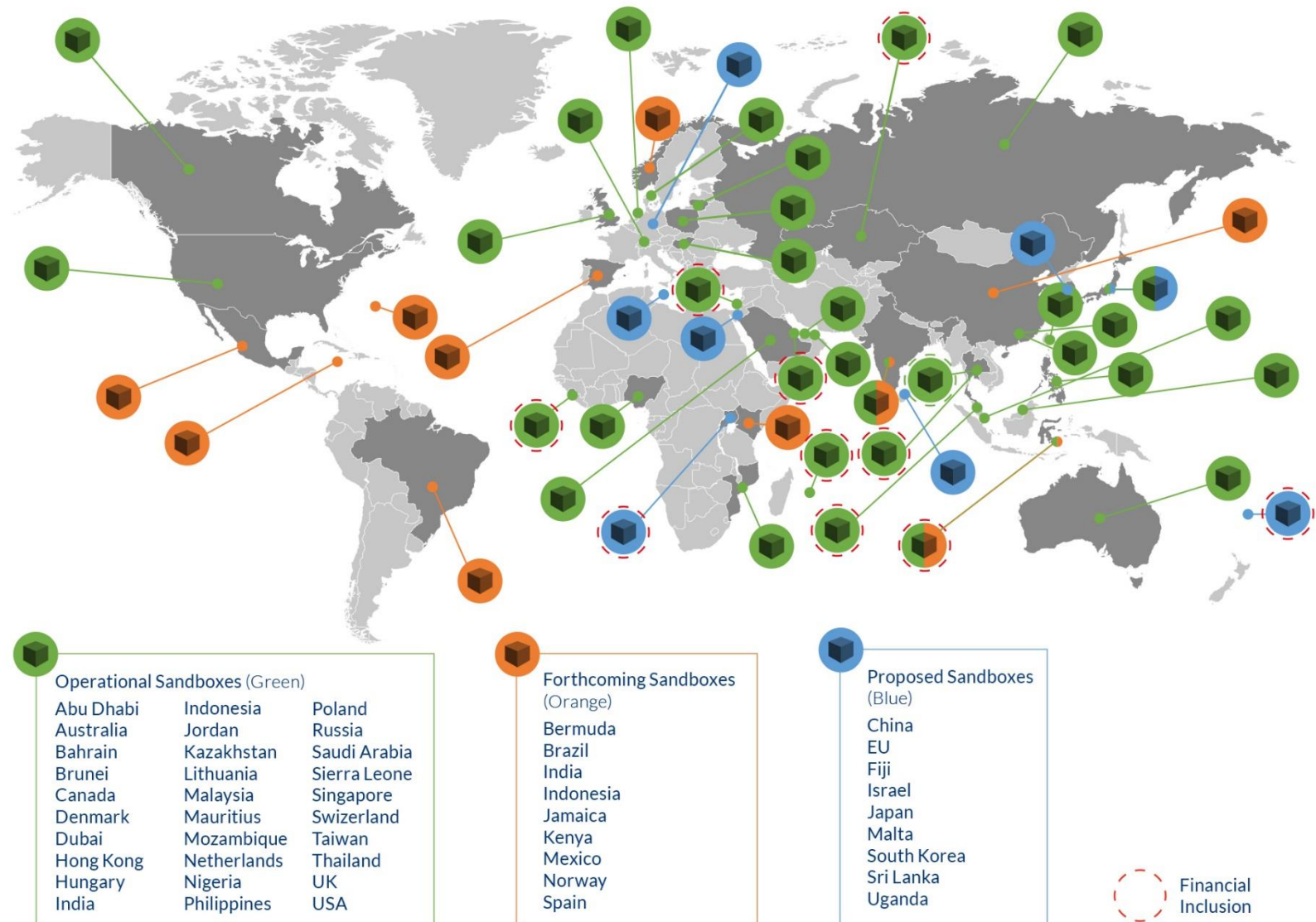
Innovation offices function well in coordination with one another

Innovation Offices – examples of lessons learned

Lesson learned	Example
Innovation offices facilitate mutually beneficial dialogue	The UK FCA observes that, “[The] transfer of ideas and innovation breaks down barriers to entry, giving firms more freedom and flexibility to innovate”
Innovation offices function well in coordination with one another	In the Netherlands the financial services regulator (Autoriteit Financiële Markten) and the central bank (De Nederlandsche Bank) have formed a joint Innovation Hub.

Regulatory Sandboxes

Regulatory sandboxes are formal regulatory programs for market participants to test new financial services or models, with live customers, subject to certain safeguards and oversight. Regulatory sandboxes are now live or planned in over 50 jurisdictions, with several including a financial inclusion emphasis, as demonstrated in the figure opposite.



Sources: European Supervisory Authorities (2019), Jenik and Lauer (2017), Mueller et al. (2018), DFS Observatory (2018) and UNSGSA FinTech Working Group and CCAF (2019)

Regulatory Sandboxes

Regulatory sandboxes and financial inclusion

Several jurisdictions have launched sandboxes with the explicit purpose of encouraging financial inclusion. Sandboxes may be used to develop a broader enabling environment for inclusive innovation, by identifying and removing potential frictions caused by existing rules or regulations that may inadvertently inhibit inclusive financial innovation. Sandboxes can help to reduce the time, costs, and uncertainty of launching a new product into the regulated financial sector.

Regulatory sandboxes – lessons learned

Sandboxes are neither necessary nor sufficient for promoting financial inclusion

Sandbox processes can be streamlined to reduce review and processing time

Thematic sandboxes are emerging as tools to support financial inclusion

Regulatory coordination is essential, particularly in multi-peak jurisdictions

Senior leadership and institutional engagement are critical to sandbox initiatives

Regulatory Sandboxes – examples of lessons learned

Lesson learned	Example
Sandboxes are neither necessary nor sufficient for promoting financial inclusion	Many regulatory questions raised in connection with sandbox tests can be effectively resolved without a live testing environment. A FinTech market landscaping study in Kenya revealed that an innovation office or “hotline” would go a long way in resolving regulatory questions of start-ups.
Thematic sandboxes are emerging as tools to support financial inclusion	The Bank of Sierra Leone’s regulatory sandbox explicitly promotes financial inclusion, and is linked to the country’s National Financial Inclusion Strategy.

RegTech

RegTech is an increasingly important tool for regulators to consider as they innovate and promote financial inclusion. While adoption is still in the early stages, a number of effective engagement models are emerging. The figure opposite illustrates pioneering RegTech models around the world and the principal technologies they employ.



Sources: BIS (2018), R²A, BCFP, BoE, Toronto Centre (2017), World Bank (2018), UNSGSA FinTech Working Group and CCAF (2019)

RegTech and financial inclusion

Regulators can utilise RegTech to better ensure compliance among existing and new institutions more effectively. RegTech can also help regulators improve their ability to monitor the wider marketplace. Improved data collection and analysis from RegTech can help regulators generate insights that can lead to refinements of rules and guidelines that contribute to financial inclusion.

RegTech – lessons learned

Executive sponsorship matters

**Broad-based stakeholder buy-in
can pay dividends**

Match solutions to problems

**The benefits of multi-disciplinary
teams**

**Success can bring about further
success**

**Crowdsourcing solutions can
surface novel ideas**

Culture and procedural challenges must also be addressed

RegTech – examples of lessons learned

Lesson learned	Example
Broad-based stakeholder buy-in can pay dividends	The Aadhaar digital identity program in India was positioned to solve a number of problems felt across government, including social security fraud.
Match solutions to problems	The RegTech for Regulators Accelerator (R2A) works closely with regulators to diagnose regulatory “pain points”, followed by identification and crafting of potential solutions.

Implementation Considerations

Many of the innovative regulatory initiatives described above are still in the early stages of development. However, it is clear that no single initiative is a “silver bullet” for the effective regulation of inclusive financial innovation. The following 10 Implementation Consideration are designed for regulators who have carefully considered the key prerequisites to enable inclusive FinTech, together with their own specific market and circumstances.

1 Conduct a feasibility assessment focusing on capacity and objectives

2 Engage with a wide range of relevant stakeholders; consult to identify challenges and crowdsource solutions

3 Ensure executive buy-in and institutional support, focusing on mindset and culture

4 Sequence and combine a variety of approaches for regulatory innovation

5 Start small, experiment often, and gain quick wins

6 Be adaptable, flexible, and open to refining the approach

7 Facilitate inter-agency coordination and collaboration

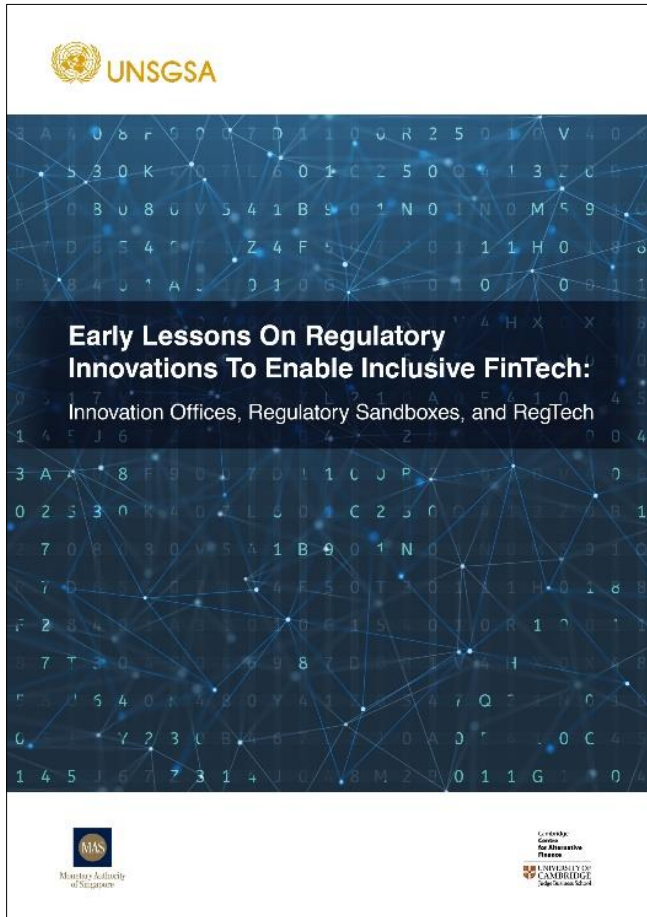
8 Develop a theory of impact and metrics of success

9 Ensure proportionality

10 Utilize regulatory innovation to support capacity building

Implementation Considerations - examples

Implementation Consideration	Example
Engage with a wide range of relevant stakeholders; consult to identify challenges and crowdsource solutions	The Bangko Sentral ng Pilipinas found that engaging with new types of technology providers supported the development of RegTech, which in turn helped to identify barriers to inclusive financial innovation.
Sequence and combine a variety of approaches for regulatory innovation	Following the creation of an innovation office, the Monetary Authority of Singapore launched other initiatives such as a sandbox, the Global FinTech Hackcelerator, exploration and development of RegTech, and an activity-based Payment Services Bill.



A full copy of this report can be found at:
<https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/>

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