



October 14, 2018

Paul Watkins, Director
Office of Innovation
Bureau of Consumer Financial Protection
officeofinnovation@cfpb.gov

Re: Response to the Global Financial Innovation Network (GFIN) Consultation Document, August 2018

Dear Mr. Watkins:

The Milken Institute would like to thank the Global Financial Innovation Network (GFIN) members¹ for the opportunity to respond to the latest consultation.

The Milken Institute² is a nonprofit, nonpartisan think tank determined to increase global prosperity by advancing collaborative solutions that widen access to capital, create jobs, and improve health. The Milken Institute's Center for Financial Markets (CFM)³ promotes financial market understanding and works to expand access to capital, strengthen and deepen financial markets, and develop innovative financial solutions to the most pressing global challenges.

Since the launch of the Milken Institute's financial technology (FinTech) program in October 2014, CFM has been a leading voice in the debate over how policymakers should respond to the growth of FinTech. CFM actively promotes flexible financial regulations to foster greater FinTech innovations to enhance access to capital, financial inclusion, and transparency and compliance.

Until now, policymakers' responses to FinTech have focused on developing regulatory sandboxes within individual regulatory jurisdictions and implementing bilateral FinTech agreements between jurisdictions. The announcement of the GFIN is a welcome evolution beyond these two regulatory developments. By creating a unique venue for multilateral regulatory engagement, the GFIN has the potential to address regulatory concerns brought about by the borderless nature of financial services.

¹ The eleven Global Financial Innovation Network (GFIN) regulatory members are: Abu Dhabi Global Market (ADGM), Autorité des marchés financiers (AMF, Canada), Australian Securities and Investments Commission (ASIC), Bureau of Consumer Financial Protection (BCFP, USA), Central Bank of Bahrain (CBB), Dubai Financial Services Authority (DFSA), Financial Conduct Authority (FCA, UK), Guernsey Financial Services Commission (GFSC), Hong Kong Monetary Authority (HKMA), Monetary Authority of Singapore (MAS), and the Ontario Securities Commission (OSC, Canada). The Milken Institute would also like to thank the Consultative Group to Assist the Poor (CGAP) for taking a lead in this effort.

² <http://www.milkeninstitute.org/>

³ <http://www.milkeninstitute.org/centers/markets>

The Milken Institute is encouraged to see eleven regulators join together to address the challenges that confront FinTech firms who wish to offer their services and products across multiple jurisdictions. We offer the recommendations below in support of the GFIN's initial development and future success.

The Milken Institute would again like to thank the GFIN members for providing the opportunity to comment on the GFIN consultation. As the GFIN members continue to engage on how the GFIN will operate, the Milken Institute would welcome the opportunity to discuss our recommendations and we stand ready to provide any additional information or assistance that the GFIN might find useful.

Sincerely,

Jackson Mueller
Associate Director, Center for Financial Markets
Milken Institute

Dan Murphy
Associate, FinTech Program, Center for Financial Markets
Milken Institute

Michael S. Piwowar
Executive Director, Center for Financial Markets
Milken Institute



**Milken Institute Recommendations in Response to the
Global Financial Innovation Network (GFIN)
Consultation Document
August 2018**

The Milken Institute provides the following recommendations for GFIN members to consider prior to the formal launch of the network.

A. The GFIN should develop a concrete list of challenges that it seeks to address from the outset

The GFIN consultation document states that a range of cross-border-related topics were highlighted in feedback to its first consultation.⁴ These topics include artificial intelligence, distributed ledger technology, data protection, initial coin offerings, anti-money laundering requirements, payments, and cross-border identity verification.

The Milken Institute agrees that each of these topics merits attention, but would like to see more specificity in the *challenges* that the GFIN hopes to address. One approach could be to develop a list of “problem statements.” This would not be unlike the list released by the Monetary Authority of Singapore as part of the Global Hackcelerator during its annual FinTech Festival.⁵ This list of problem statements should be refreshed on an annual basis and would act as a reference to ensure the GFIN remains focused on addressing relevant challenges.

B. The GFIN should think big, but start small

The Milken Institute is supportive of the three main functions of the GFIN – a network of regulators, joint policy work and regulatory trials, and cross-border trials. However, we are concerned that too much focus on the third function in the short-term could overshadow the value of the first two functions.

To ensure the GFIN operates most effectively, the Milken Institute recommends that the GFIN spends at least the first year focusing exclusively on developing the first two functions before considering the formation of a global regulatory sandbox.

In particular, the GFIN should propose specific guidelines on how the group intends to operate. This effort should include the development of a list of detailed problem statements, how the GFIN chair and working groups will be selected and operate, and a plan to coordinate joint policy work and regulatory trials. The GFIN should also set expectations for the written output that will be publicly released based on the learnings from the joint policy work and regulatory trials.

Additionally, the Milken Institute is concerned that regulatory resource constraints may limit the effective implementation of the third core function of the GFIN. The joint policy work and regulatory trials alone will demand significant resources from each of the GFIN members.

⁴ FCA Explores Creation of Global Sandbox. FinExtra. February 2018. Available at: <https://www.finextra.com/newsarticle/31677/fca-explores-creation-of-global-sandbox>

⁵ Global FinTech Hackcelerator: Industry Problem Statements. Available at: https://fintechfestival.sg/wp-content/uploads/2018/05/MAS-Hackcelerator-Problem-statements-catalogue-2018_2105.pdf

Cross-border trials will require even more resources for at least two reasons. First, the idea of a global sandbox has never been attempted before. While this may lead to regulatory convergence or passporting regimes, such outcomes would be very far in the future. Second, it will likely take a significant amount of time for regulators to come to agreement on the prerequisites firms must meet in order to be considered for the sandbox.

C. The GFIN should not create a Steering Committee

In order to ensure that a collaborative environment remains among the GFIN members, the Milken Institute recommends against the formation of a Steering Committee for the GFIN.

The Milken Institute believes that a Steering Committee made up of a smaller number of members could create the appearance among non-Steering Committee members that a small group is influencing the direction of the GFIN for their own advantage. The Institute has been following FinTech-related regulatory and policy developments since 2014 and has witnessed the efforts of several countries to turn themselves into FinTech hubs. The competition for FinTech firms is intense and, as Appendix I demonstrates, policymakers and regulators continue to develop alternative regulatory frameworks and testing environments to foster innovation-friendly ecosystems.

As such, the Institute recommends against the creation of a Steering Committee. As an alternative approach, the Institute would recommend that the chair of the GFIN formally coordinate the initiative, while the various working groups address specific problem statements as selected by the Chair during that regulatory authority's tenure.

D. Questions for the GFIN to consider before its inaugural meeting

In addition to our recommendations, there are two questions that we believe the GFIN should consider at its first formal meeting:

1. What specific steps will the GFIN take to work with regional, multi-jurisdictional efforts to harmonize cross-border regulations? The consultation states that the GFIN intends to act as a complement to international standard setting bodies. However, the consultation does not explain how the GFIN will interact with regional efforts among certain regulators and/or trade groups to harmonize disparate regulatory frameworks. We would welcome further clarity on how the GFIN will interact with regional efforts, such as the ASEAN Financial Innovation Network and the Canadian Securities Administrators.
2. How will the GFIN capture and quantify whether its three core functions have contributed to, or been directly responsible for changes to existing regulatory approaches? It is still unclear whether the lessons learned from information sharing between regulators or the feedback received from testing certain FinTech platforms, products, and services has directly resulted in a jurisdiction's regulatory authority revising existing frameworks. While significant efforts continue to be undertaken by various regulatory authorities to promote the development of FinTech, we observe that there is little indication that the insights gained by regulatory authorities have been directly responsible for changes to current laws or regulations.



APPENDIX I: Regulatory Sandboxes Worldwide¹²

Author: Jackson Mueller, Associate Director, FinTech Program, Center for Financial Markets

AE: All-Encompassing³; LTD: Limited; SV: Specific Vertical

Country/ Region	Discussed/ Proposed/ Operational	Regulator	AE / SV	Key Dates
Australia	Operational	Australian Securities and Investments Commission (ASIC) Australian Prudential Regulatory Authority (APRA)	LTD	<ul style="list-style-type: none"> ▪ August 2018: ASIC is one of 11 regulators to launch a consultation on the proposed creation of the Global Financial Innovation Network.¹ ▪ May 2018: InsurTech Australia has given up hope that ASIC’s regulatory sandbox will allow for InsurTech firms to test their products and services. “We retain a determination that the status of the sandbox is poor in its utility.”² Separately, APRA releases public responses to its discussion paper on a phased approach to authorizing new entrants to the banking industry.³ Separately, ARPA releases an information paper on ADI licensing: restricted ADI framework. APRA also grants its first Restricted ADI license to a new digital bank start-up.⁴⁵ ▪ April 2018: Stuart Stoyan, the CEO and founder of marketplace lender MoneyPlace and chairman of FinTech Australia, penned an op-ed in The Australian regarding Australian Securities and Investments Commission (ASIC) commissioner John Price's comments on innovation and regulatory sandboxes. According to Stoyan, "while we have a clear top-down prioritization from the country’s leadership that Australian businesses need to innovate, what is not clear is how the government agencies are implementing this. Along with poor sandbox take-up, anecdotally many start-ups are having issues with accessing the research and development tax incentive — which was meant to be a boon for the industry."⁶ ▪ December 2017: ASIC publishes a consultation paper seeking feedback on its FinTech licensing exemption, introduced through its Innovation Hub in December 2016.⁷ “The proposal in this consultation paper is not a new or additional regulatory

¹ The author would like to thank the following individuals for their insight and support: The Milken Institute FinTech Advisory Committee; The Milken Institute Capital Markets Program Fellows; Carole Biau, Program Lead, IFC-Milken Institute Capital Markets Training Program; Ivo Jenik, Financial Sector Specialist, CGAP; Philip Rowan, Lead, Regulatory Innovation, Cambridge Centre for Alternative Finance.

² The Institute would also like to thank representatives of the various authorities and organizations listed in the following document for providing feedback. The Institute will continue to update this document on a monthly basis and looks forward to continuing to engage with the listed authorities in the future.

³ *May not just be financial services oriented. For example, the Mauritius Regulatory Sandbox License has also been given to one firm specializing in stem cells and another firm focused on the film industry.

				<p>measure, but is to maintain the same measures we proposed in Consultation Paper 260 <i>Further measures to facilitate innovation in financial services (CP 260)</i>, until such time as the Australian Government implements its enhanced regulatory sandbox exemption.”</p> <ul style="list-style-type: none"> ▪ November 2017: Consumer groups blast proposed efforts to widen ASIC’s regulatory sandbox.⁸ ▪ October 2017: Australian government publishes proposed legislation to enhance ASIC’s regulatory sandbox. Consultation period ends December 2017.⁹ The bill “extends regulation-making powers to enable an exemption from obtaining an Australian Financial Services License (AFSL) and/or an Australian Credit License (ACL) under certain conditions for the purposes of testing financial and credit services and products.” The testing timeframe will also be extended to 24 months.¹⁰ ▪ August 2017: The APRA releases a report covering a phased approach to authorizing new entrants to the banking industry.¹¹ ▪ May 2017: The government released its 2017 budget, which includes a number of measures pertaining to FinTech. Among them: legislate an enhanced regulatory sandbox that allows for wider testing of products and services and a 24-month testing timeframe.¹²¹³ ▪ April 2017: John Price, Commissioner of ASIC, gives remarks on ASIC’s regulatory sandbox.¹⁴ ▪ December 2016: ASIC announces its licensing exemption for FinTech testing. The announcement broadens the scope of Australia’s regulatory sandbox, though it excludes some products and services from the exemption, including complex products (e.g., derivatives), illiquid products, or arrangements that cannot be easily reversed; products with a long-term focus (e.g., superannuation and life insurance); and products that have been targeted at vulnerable consumers (e.g., consumer leases).¹⁵¹⁶ ▪ May 2016: ASIC will publish its regulatory sandbox proposal in June, according to Commissioner Cathie Armour.¹⁷ ▪ March 2016: The Australian government publishes a report, <i>Backing Australian FinTech</i>, which highlights a number of steps the government is taking to support the FinTech economy in the country, including the creation of a regulatory sandbox and the formation of a FinTech Advisory Group.¹⁸
Bahrain	Operational	Central Bank of Bahrain	AE	<ul style="list-style-type: none"> ▪ August 2018: The central bank signs on as one of 11 regulators that are members of the Global Financial Innovation Network.¹⁹ ▪ June 2018: Palmex, a digital asset exchange powered by Dubai-based blockchain startup ArabianChain Technology, has become the first cryptocurrency exchange in

		Economic Development Board (EDB)		<p>the Middle East and North Africa to receive a regulatory sandbox license from the Central Bank of Bahrain. The license goes into effect on July 15.²⁰</p> <ul style="list-style-type: none"> ▪ April 2018: EDB financial services executive director David Parker discusses Bahrain's interest in collaborating with Malaysia as both countries have implemented FinTech policies, including the launch of regulatory sandboxes, and have forward-thinking regulators.²¹ ▪ February 2018: In an update on its non-oil sector, Bahrain's Economic Development Board states that the sandbox has already accepted six entrants.²² ▪ January 2018: The Central Bank of Bahrain approves three regulatory sandbox participants to test their innovations in the kingdom.²³ Bahrain's central bank approved Malaysian-based Beflrics Group to run a cryptocurrency exchange in Bahrain. The approval marks "the first ever exchange in the Middle East to obtain a central bank issued Sandbox license, to run a cryptocurrency exchange."²⁴ ▪ October 2017: The central bank announces the establishment of a dedicated FinTech Unit which will be responsible for the approval process to participate in the Regulatory Sandbox, among other duties.²⁵ ▪ August 2017: London-based foreign exchange cash management firm Tramonex and Dubai-based remittance platform NOW Money became the first two entrants to the country's regulatory sandbox.²⁶ ▪ June 2017: The central bank announces the launch of its Regulatory Sandbox Framework.²⁷ ▪ February 2017: Khalid Al Rumaihi, chief executive of the Bahrain Economic Development Board, said the country would launch a venture capital fund this year to support FinTech ventures, as well as create a regulatory sandbox and FinTech accelerator.²⁸
Bermuda	Proposed	Bermuda Monetary Authority (BMA)	SV	<ul style="list-style-type: none"> ▪ September 2018: The BMA releases an Information Bulletin outlining licensing requirements for digital asset businesses. "Two classes of DAB licenses are available; Class F (full) and Class M (modified). Modified licensees will operate in a sandbox environment (similar to, but separate from the Authority's Insurance Regulatory Sandbox) before graduating to become full licensees, where applicable."²⁹ Separately, the framework for Digital Assets Businesses is operational. The framework is composed of the following acts/rules: Digital Asset Business Act 2018; Prudential Standards and Returns Rule 2018; Cybersecurity Rules 2018; Client disclosure Rules 2018; Code of Practice 2018; Statement of Principles 2018; AML Sectoral Guidance Notes for Digital Asset Business 2018; Information Bulletin – Assessment and Licensing Committee; and Digital Asset Business Application Process.

				<ul style="list-style-type: none"> ▪ August 2018: The BMA hires Moad Fahmi, as Senior Advisor, Supervision (FinTech). Fahmi was the former director, FinTech and innovation at the Authority of Financial Markets in Quebec, Canada. "Mr. Fahmi will be responsible for the supervision of digital asset businesses under the Digital Asset Business Act 2018."³⁰ Lastly, amendments to the Banks and Deposit Companies Act 1999 becomes operative.³¹ ▪ July 2018: Appleby senior associate Matthew Carr explains the importance of upcoming amendments to Bermuda's Insurance Act of 1978 and how that will help foster/support an InsurTech ecosystem.³² The Insurance Amendment Act of 2018 came into effect on July 23, 2018.³³ Separately, the Companies and Limited Liability Company (Initial Coin Offering) Amendment Act 2018 became operative on July 9. The Companies and Limited Liability Company (Initial Coin Offering) Regulations 2018 <i>and</i> ICO Legislation were published on July 10.³⁴³⁵³⁶ Lastly, the House of Assembly passed the Restricted Banks Act, with the bill now moving to the Senate for ratification.³⁷ ▪ June 2018: Premier David Burt announced the country will have an InsurTech regulatory sandbox regime in place by the end of July.³⁸ Separately, Premier David Burt gives a statement on amending the Banks and Deposit Companies Act 1999. "To ensure that the Government is able to effectively execute on its FinTech initiatives, as well as encourage responsible FinTech innovation that provides fair access to financial services and fair treatment of consumers, the Banks and Deposit Companies Act 1999 will be amended to allow for a new class of bank that will provide banking services to Bermuda based FinTech companies."³⁹ ▪ May 2018: In an interview with Bloomberg on blockchain and cryptocurrency, Premier Burt states: "I look at my entire country as an innovation hub.... We are the ideal place for companies that are looking to test out new age products and services, to have them in a constrained environment to see how they can work, and then they can scale them up to service the rest of the world."⁴⁰ ▪ April 2018: The BMA also publishes a consultation paper covering an Insurance Regulatory Sandbox.⁴¹ Separately, the BMA publishes a consultation paper on the regulation of virtual currency business. Within the document, the BMA includes discussion on a regulatory sandbox. "It is intended that a Class M license will be an intermediate license type which is designed to facilitate a regulatory sandbox for novelty start-up businesses, particularly those businesses desirous of testing new products and or services (proof of concept)."⁴²
Brazil		Banco Central Do Brasil		<ul style="list-style-type: none"> ▪ June 2018: The central bank joined with other Brazilian financial regulators to exchange information using a blockchain-based platform, the Information Integration Platform for Regulators (Pier). "Initially connected regulators will use Pier for sharing data regarding the authorization processes for financial institutions,

				<p>including information on administrative sanctioning processes, the conduct of financial institutions' officers, and the corporate control of entities regulated by the BCB.¹⁴³</p> <ul style="list-style-type: none"> ▪ May 2018: The central bank launched the Laboratory of Financial and Technological Innovations (Lift). "The ideas selected by the laboratory will be supported by large technology companies. Through the access portal, interested people and companies will submit their projects, which should be aligned with the themes defined by the committee formed by the BCB, IT companies and Fenabac."⁴⁴ ▪ April 2018: The Brazilian National Monetary Council (CMN) approved Resolutions 4.656 and 4.657, which regulate the performance of FinTech companies operating in the credit market.⁴⁵ ▪ September 2017: The central bank released Public Consultation 57/2017 which covers cybersecurity policy by financial institutions and other authorized institutions, in addition to requirements related to contracting data processing, storage services, and cloud computing services.⁴⁶ ▪ August 2017: Brazil's central bank released Public Consultation 55/2017 which, among other things, includes a regulatory sandbox.⁴⁷ ▪ May 2017: Central bank director Otavio Damaso, in an interview, said Brazil is looking to implement FinTech regulations this year.⁴⁸
Brunei	Operational	Autoriti Monetari Brunei Darussalam	AE	<ul style="list-style-type: none"> ▪ March 2017: Clarification issued on the regulatory sandbox guidelines.⁴⁹ ▪ February 2017: The Brunei Monetary Authority issues FinTech Regulatory Sandbox Guidelines.⁵⁰⁵¹ In remarks, the managing director of the monetary authority also announced the creation of the FinTech office.⁵²
Canada	Operational	Canadian Securities Administrators (CSA) Ontario Securities Commission (OSC) AMF, Quebec Insurance Bureau of Canada	AE	<ul style="list-style-type: none"> ▪ August 2018: Autorité des marchés financiers (Quebec) and the Ontario Securities Commission sign on as members of the Global Financial Innovation Network.⁵³ ▪ August 2018: The Insurance Bureau of Canada (IBC) is looking to implement a regulatory sandbox for the P&C insurance industry.⁵⁴ The IBC is also calling for the creation and regulation of P&C group insurance in Quebec.⁵⁵ ▪ April 2018: The Joint Forum of Financial Market Regulators holds its annual meeting. "Of particular interest were lessons emerging from the development and implementation by the CSA of a regulatory sandbox to support FinTech businesses."⁵⁶ ▪ March 2018: The Ontario Securities Commission (OSC) outlined key areas of focus for 2018-2019. According to the Draft Statement of Priorities, the OSC will continue to support FinTech innovations through the OSC's regulatory sandbox, also known as LaunchPad, among other efforts.⁵⁷ ▪ February 2018: The Canadian Securities Administrators (CSA) signed a co-operation agreement with the French financial regulatory authority (AMF). The agreement

			<p>"extends the work of the CSA Regulatory Sandbox Initiative and the French AMF FinTech, Innovation and Competitiveness division, and provides a sound environment for businesses to develop innovative solutions in the financial sector."⁵⁸</p> <ul style="list-style-type: none"> ▪ January 2018: The Canadian Securities Agency's regulatory sandbox authorized three digital currency investment fund managers. In 2017, the CSA only granted four such authorizations.⁵⁹ ▪ November 2017: Canada's Competition Bureau invites feedback on a draft FinTech report.⁶⁰ Separately, Charles Sousa, Minister of Finance for Ontario, discusses the government's FinTech strategy and announces the government's intent to create a "regulatory super sandbox".^{61,62} ▪ October 2017: The Ontario Securities Commission released its annual report which provides further details into the OSC's efforts to support FinTech firms.⁶³ According to the document, 38 FinTech companies have received support from the OSC's LaunchPad (Canada's version of a regulatory sandbox). OSC Chair and CEO Maureen Jensen also noted that the OSC created two new advisory committees this year, one of which focuses on FinTech. Separately, the OSC approves the first initial coin offering under the auspices of the Canadian Securities Administrators' regulatory sandbox.⁶⁴ ▪ August 2017: CSA publishes an information letter on cryptocurrency offerings which, among other things, recommends that companies planning an ICO use its regulatory sandbox.⁶⁵ ▪ February 2017: CSA formerly launches a regulatory sandbox initiative.⁶⁶ Separately, EY publishes a report providing recommendations on how Montreal can become a FinTech hub in Canada.⁶⁷ One of the four recommendations calls for Canadian and Québec regulatory authorities to explore setting up a sandbox environment for testing and trials. ▪ October 2016: Ontario Securities Commission announces the formal launch of the OSC LaunchPad - the first dedicated team by a securities regulator in Canada to help FinTech businesses navigate securities law requirements and accelerate time-to-market.⁶⁸ ▪ September 2016: OSC's Maureen Jensen announces the soon-to-be-launched OSC LaunchPad, the first innovation hub by a Canadian securities regulator. "What we learn in LaunchPad will be applied to our registration model and compliance expectations for all registrants as we go forward."⁶⁹ ▪ August 2016: The Department of Finance Canada launches two consultations to review the federal financial sector legislative and regulatory framework.⁷⁰
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China	Discussed			<ul style="list-style-type: none"> ▪ March 2018: The Foreign Office, together with the Cambridge Center for Alternative Finance and the Academy of Internet Finance at Zhejiang University, published preliminary research on what a sandbox in China might look like.⁷¹ The document provides “a feasibility study on implementing a variant of best practices in FinTech regulation.” This includes an assessment of and policy recommendations for the development of a regulatory Sandbox in China. ▪ December 2017: Chancellor Philip Hammond outlines policy outcomes from the UK-China 9th economic and financial dialogue. The outcomes include a focus on the FCA's regulatory sandbox model. "Both sides welcome deeper cooperation and exchange on the FCA's Sandbox approach to regulation of FinTech and will explore opportunities to develop a similar approach in China to ensure safe market access and effective regulation of domestic and foreign firms."⁷²⁷³ ▪ October 2017: Former chairman of China's banking regulator, Liu Mingkang, is urging the establishment of a regulatory sandbox in the Greater Bay Area - a region linking 11 cities, including Hong Kong and Macau.⁷⁴
Columbia	Discussed			<ul style="list-style-type: none"> ▪ August 2018: Florez & Asociados is working with the Columbia Bankers Association to produce a study on regulatory sandboxes to present to regulators.⁷⁵
Cyprus		Securities and Exchange Commission		<ul style="list-style-type: none"> ▪ July 2018: Cyprus Securities and Exchange Commission announces the launch of its innovation hub.⁷⁶
Denmark	Operational	Financial Supervisory Authority		<ul style="list-style-type: none"> ▪ February 2018: The FSA launches the FT Lab - a regulatory sandbox for FinTech initiatives. First cohort is limited to five companies and the application period ends in March.⁷⁷⁷⁸
European Union	Discussed	European Banking Authority European Commission		<ul style="list-style-type: none"> ▪ September 2018: In early September, the EBA held an industry roundtable on regulatory sandboxes and innovation hubs.⁷⁹ Separately, Elisabeth Noble, a policy expert at the EBA, states that the Authority will publish guidelines on a regulatory sandbox in December. "Our report in December will include an analysis comparing the existing sandboxes and innovation hubs, and recommendations for the core design of a sandbox and innovation hub."⁸⁰ ▪ March 2018: The European Commission released its FinTech Action Plan which includes presenting "a blueprint with best practices on regulatory sandboxes, based on guidance from European Supervisory Authorities."⁸¹ Separately, the EBA publishes the conclusions from the consultation on the EBA's approach to FinTech. According to the report, respondents "encouraged the EBA to prioritise work relating to authorisation issues and regulatory sandboxes and to establish a forum in which best practice and convergence in supervisory and regulatory approaches can be promoted in order to foster technological neutrality and innovation across the single market.... [I]n 2018 the EBA will conduct a further analysis of the features of

				<p>regulatory sandboxes with a view to defining common features and best practices and assessing compatibility with EU law."⁸²</p> <ul style="list-style-type: none"> ▪ August 2017: The EBA released a discussion paper covering its approach to FinTech. Included in the paper, the EBA finds merit in carrying out follow-up work in a number of areas including sandboxing regimes.⁸³ ▪ June 2017: In response to the European Commission's public consultation on FinTech, the European Banking Authority found "competent authorities are using different approaches in respect of 'sandboxes,' innovation hubs, and similar regimes. This could give rise to the risk of regulatory arbitrage and level-playing-field issues and present risks to consumers ... and undermine the achievement of other objectives, for instance, financial stability."⁸⁴
Fiji	Proposed	Reserve Bank of Fiji		<ul style="list-style-type: none"> ▪ May 2017: Governor of the Reserve Bank, Barry Whiteside, announced the bank's intention "to promote, encourage, and facilitate the testing of innovative solutions that utilize technology to deliver financial products and services." According to the press release, the bank will issue guidelines for a regulatory sandbox, providing a platform "to enable existing financial institutions along with interested parties to individually lodge an application or collaborate to explore new products and services for Fiji's financial sector."⁸⁵
France	Discussed	<p>Autorité des Marchés Financiers (AMF)</p> <p>Banque de France and Autorité de Contrôle Prudentiel et de Résolution (ACPR)</p>		<ul style="list-style-type: none"> ▪ March 2018: The ACPR conducted a survey on the challenges of the digital revolution in the French banking and insurance sectors.⁸⁶ ▪ July 2017: The AMF releases its 2017 Risk Outlook, which includes mention of regulatory agencies implementing sandboxes. The French approach, however, "is based on a more gradual approach that aims to federate traditional firms developing new digital products and entities with innovative projects, some of which have begun developing their activities through partnerships. [ACPR and AMF] have therefore begun an analysis of different types of status in the banking and securities sectors, which are often run together and required for these technological platforms to carry on their business mix. They are also reviewing the proportionality of European legislation, particularly with the aim of adapting the rules for activities whose volumes fall below specified nonmateriality thresholds."⁸⁷ ▪ June 2017: In response to the European Commission's public consultation on FinTech, the central bank states that the term "sandbox" should be considered cautiously given the lack of a clear, consistent standard. "We doubt that supervisors would be legitimate to identify and select innovative projects, without involving by-side negative effects; There may be some questions about the duration of such a sandbox and as to how innovative projects to get out of that derogatory regime and enter the regular regulation (threshold effect); This kind of approach may raise level playing field issues with incumbents." Separately, "Since the financial industry is

				<p>essentially regulated at EU level, an EU initiative would be more legitimate and meaningful than the multiplication of national approaches, which may impair the consistency and efficiency of EU financial regulation.”⁸⁸</p> <ul style="list-style-type: none"> ▪ May 2017: The ACPR releases its 2016 Annual Report, which includes a section on adapting supervision for FinTechs and digital finance. As it relates to ACPR's FinTech Forum, the main issues raised at this point "have to do with (i) defining a more proportionate approach to regulation and supervision of new players, (ii) modernising rules on remote customer identification and (iii) working on the implications and limitations of the use of customer data." The Forum will examine the regulatory sandbox, taking into account the European framework applicable to financial activities and challenges linked to fair competition.⁸⁹ ▪ January 2017: The second edition of the Paris FinTech Forum was held. According to reports, French regulators “have indicated that there will be no French regulatory sandbox. Instead, they will focus on accelerating their regulatory processes, such as the transposition of European directives into French law. Strengthening the communication with FinTech firms, implementing their own digital transformation and developing RegTech are key elements of the regulators’ strategy.”⁹⁰ ▪ November 2016: The ACPR presents on the challenges of FinTech regulation. As it relates to sandboxes and the role of the AMF – the response from the regulator is to support the "sandbox" approach vs. "soundbox" approach.⁹¹ ▪ July 2016: The ACPR and the AMF launch the FinTech Forum composed of 36 members.⁹² ▪ June 2016: The AMF announces the creation of a FinTech, Innovation, and Competitiveness division headed by Frank Guider. ACPR creates the ACPR Pole Fintech Innovation.^{93,94}
Germany	Discussed	BaFin		<ul style="list-style-type: none"> ▪ May 2018: Following the publication of the EU FinTech Action Plan, the German Bundesrat took a stand against the introduction of a regulatory sandbox for FinTech companies. The Bundesrat would like to preserve equal treatment of financial sector actors and protect against consumer risks.⁹⁵ ▪ April 2017: BaFin and Germany’s financial services industry continue to say “No” to implementing a regulatory sandbox.⁹⁶
Guernsey	Discussed	Financial Services Commission		<ul style="list-style-type: none"> ▪ August 2018: The Guernsey Financial Services Commission is one of 11 regulators from around the world to sign on as a member of the Global Financial Innovation Network.⁹⁷ ▪ June 2018: 35 Guernsey businesses participated in teams to develop digital solutions for three pre-set challenges as part of the first Sandbox Sprint innovation challenge: Optimize efficient and effective client due diligence; improve administration; and help the financially excluded.⁹⁸

Hong Kong	Operational	<p>Hong Kong Monetary Authority</p> <p>Securities and Futures Commission</p> <p>Insurance Authority</p>	AE	<ul style="list-style-type: none"> ▪ August 2018: HKMA, one of 11 regulators from around the world, announces the creation of the Global Financial Innovation Network (GFIN).⁹⁹ ▪ May 2018: In its annual report, HKMA states that at the end of last year, 28 new technology products have been tested in the Financial Supervisory Sandbox. Out of these cases, 14 pilot trials have been completed, and the relevant products have been rolled out to the market subsequently.¹⁰⁰ ▪ February 2018: HKMA announces a public consultation on revised guidance on authorization of virtual banks.¹⁰¹ ▪ November 2017: The Hong Kong Monetary Authority announced the FinTech Supervisory Chatroom as part of its FinTech Supervisory Sandbox 2.0. "It seeks to provide supervisory feedback to authorized institutions (AIs) and technology firms at an early stage when new technology applications are being contemplated, thereby reducing abortive work and expediting the rollout of new technology applications."¹⁰² ▪ September 2017: The Securities and Futures Commission launches the SFC Regulatory Sandbox "to provide a confined regulatory environment for qualified firms to operate regulated activities under the Securities and Futures Ordinance before Fintech is used on a fuller scale."¹⁰³¹⁰⁴ Norman Chan, CEO of the HKMA, in prepared remarks, states that the HKMA will take the lead and launch several initiatives including upgrading its existing FinTech Supervisory Sandbox 1.0 to Version 2.0. "FSS 2.0 will have three new features: (i) a Fintech Supervisory Chatroom will be set up to provide speedy feedback to banks and tech firms at an early stage of their Fintech projects; (ii) tech firms may have direct access to the sandbox by seeking feedback from the Chatroom without necessarily going through a bank; (iii) the sandboxes of the HKMA, the Securities and Futures Commission and the Insurance Authority will be linked up so that there will be a single point of entry for pilot trials of cross-sector FinTech products. The FSS 2.0 will be launched by the end of 2017."¹⁰⁵¹⁰⁶ ▪ September 2016: HKMA announces the launch of its FinTech Supervisory Sandbox "to facilitate pilot trials of FinTech and other technology initiatives of authorized institutions before they are launched on a fuller scale." In prepared remarks, HKMA CEO Norman T.L. Chan, states that the sandbox "allows banks to conduct testing and trial of newly developed technologies and applications on a pilot basis.... Banks intending to access the Sandbox are advised to get in touch with the HKMA early."¹⁰⁷¹⁰⁸
	Operational	Insurance Authority	SV	<ul style="list-style-type: none"> ▪ September 2017: The Insurance Authority launches its InsurTech Sandbox. The sandbox "helps authorized insurers experiment with new InsurTech and other technology applications without the need to achieve full compliance with the IA's

				<p>usual regulatory requirements. Under the Sandbox initiative, pilot trials of InsurTech applications will be conducted in a controlled environment with sufficient safeguards for policy holders. Insurers can gain real market data and collect user feedback before their formal launch in the market." The IA's FinTech Liaison Team is renamed to InsurTech Facilitation Team.¹⁰⁹</p>
India	Discussed	<p>Federal</p> <p>Ministry of Finance</p> <p>Reserve Bank of India (RBI)</p> <p>Securities and Exchange Board of India (SEBI)</p>	AE	<ul style="list-style-type: none"> ▪ September 2018: The RBI is working on a regulatory sandbox for FinTech and setting up a data science lab, according to Gautam Chatterjee. "A data science lab will be opened in the RBI with a mixed team of engineers, economists and statisticians and they will be going through internal data of each vertical."¹¹⁰ ▪ March 2018: The government established an eight-member Steering Committee on FinTech, under the Chairmanship of Secretary, Department of Economic Affairs, and Ministry of Finance. Terms of Reference of the Steering Committee includes the development of regulatory interventions, e.g., regulatory sandbox model, that will enhance the role of Fintech in the sectors identified for focused interventions.¹¹¹ ▪ March 2018: YES BANK, PwC, Let's Talk Payments (LTP), and Ourcrowd unveiled the inaugural "India FinTech Opportunities Review (IFOR)" for 2017-2018. Among some of the findings from the report, the government has introduced more than 50 schemes in the last five years to assist the growth of startups and SMEs and nearly 90 percent of respondents suggested the need for a regulatory sandbox. The IFOR report also provides recommendations on how to turn India into a FinTech hub. Among the recommendations: the creation of a regulatory sandbox governed by the Institute for Development and Research in Banking Technology.¹¹² ▪ January 2018: Mumbai will become a FinTech Hub under a new policy called LEAP, which stands for Lighter Regulation, Enabling Environment, Augmented Infrastructure, and Partnerships. "Senior officials said the hub will be in the form of a regulatory sandbox in line with the guidelines mooted by a Reserve Bank of India panel."¹¹³ ▪ November 2017: The Inter-Regulatory Working Group on FinTech and Digital Banking in India released its report covering regulatory issues related to FinTech and digital banking in the country. Key recommendations include the development of a dedicated organizational structure within each regulator and the development of a regulatory sandbox framework.¹¹⁴ (The report was added to the RBIs website in February 2018).¹¹⁵ ▪ August 2017: SEBI constitutes the 'Committee on Financial and Regulatory Technologies (CFRT)' which will examine, among other things, approaches and frameworks for a regulatory sandbox in India's market and conditions to facilitate the adoption of FinTech and promote financial innovations.¹¹⁶ Separately, at a seminar on 'Policy and Regulatory Framework for Algorithm/ High Frequency

				<p>Trading in India', Muralidhar Rao, Executive Director SEBI, informed stakeholders that SEBI has established a panel to evaluate concepts like regulatory sandbox for dealing with the technological challenges posed by algos and FinTechs.¹¹⁷</p> <ul style="list-style-type: none"> ▪ July 2017: The RBI's Household Finance Committee published its findings covering the financing decisions of India's households. Among the report's recommendations: the development of a regulatory sandbox to test innovative products and financial service delivery mechanisms.¹¹⁸ Separately, Deloitte and the Confederation of Indian Industry release a report, <i>Regulatory Sandbox: Making India a Global FinTech Hub</i>. "In this paper, a framework for regulators to identify sandbox candidates and execute the sandbox has been presented."¹¹⁹ ▪ April 2017: Former deputy governor of the Reserve Bank of India R. Gandhi was interviewed by BloombergQuint on FinTech regulation. In regard to regulatory sandboxes, Gandhi questioned their appropriateness given the fact that real money is involved. "Can we afford to experiment with real money?" he said. "Sandbox means experimenting. During the experimentation, the expectation is that the experimenter should not be punished. That is the philosophy of a sandbox. But in the case of money being involved, who will foot the bill?"¹²⁰
	Discussed	Federal Insurance Regulatory and Development Authority of India	SV	<ul style="list-style-type: none"> ▪ September 2018: The IRDAI establishes a committee on a regulatory sandbox for India's insurance industry. Among the terms of reference of the committee, drafting a consultation paper on regulatory sandbox in the insurance sector.¹²¹
	Operational	State	AE	<ul style="list-style-type: none"> ▪ June 2018: The state of Maharashtra becomes the first Indian state to have a dedicated FinTech policy, including the formation and launch of a sandbox. The Department of Information Technology will oversee FinTech efforts. "The sandbox will be opened on Saturday. In this sandbox, all the startups will be welcome. They can register, they can open their APIs (application programming interface) and banks can consume," S V R Srinivas, Principal Secretary (information technology), said. Of note, various other state governments have expressed interested in partnering with Maharashtra, and the government is currently working on an agreement with the government of Andhra Pradesh.¹²²
Indonesia	Operational	Financial Services Authority (OJK) Bank of Indonesia	AE	<ul style="list-style-type: none"> ▪ August 2018: OJK Regulation No. 13/POJK.02/2018 on Digital Financial Innovation in the Financial Sector takes effect. The regulation sets out certain obligations for businesses deemed to be utilizing digital financial innovation and may be subject to regulatory sandboxing.¹²³ ▪ April 2018: "Bank Indonesia determines a registered Financial Technology (Fintech) Operator, PT. Toko Pandai Nusantara, to take part in the regulatory sandbox trial of

				<p>Bank Indonesia." The determination of PT. Toko Pandai Nusantara is made by considering the fulfillment of 8 (eight) mandatory criteria for Fintech Operator in accordance with Regulation of Members of Board of Governors Number 19/14/PADG/2017 on Financial Technology (Regulatory Sandbox). Currently, 15 Fintech Operators have been registered with Bank Indonesia."¹²⁴¹²⁵</p> <ul style="list-style-type: none"> ▪ January 2018: Reports surface that OJK is planning on issuing a financial services policy that includes guiding principles for Digital Financial Services Providers, and the application of a regulatory sandbox.¹²⁶ ▪ December 2017: The central bank issues regulations on FinTech implementation. "To boost development of innovations in financial technology, Bank Indonesia will determine the products, services, technology, and/or business models of registered Financial Technology Operators to be tested in the Regulatory Sandbox. Regulatory Sandbox is a space of limited test on a product, service, technology, and/or business model of a Financial Technology Operator."¹²⁷ ▪ October 2017: eCurrency Mint Limited partners with PayPro Indonesia to provide eCurrency's digital fiat currency solution in the country. "The digital fiat currency solution initiative is to be part of Indonesia's FinTech regulatory sandbox designed to promote and facilitate financial technology innovation in the country."¹²⁸ ▪ June 2017: The Financial Services Authority has formed the Digital Financial Innovation Unit, which will be responsible for the regulatory sandbox and research.¹²⁹ ▪ November 2016: Bank of Indonesia launches a FinTech office. According to reports, "BI plans to monitor the development of FinTech companies through its regulatory sandbox.... It is a method that has been adopted by other countries such as Singapore and the UK to foster their small, yet booming FinTech industries." According to deputy governor Ronald Waas, the focus of the sandbox "will be on facilitating interactions, on monitoring the development of business innovation and cyber security and on consumer protection, which will be the most important aspect to consider."¹³⁰ ▪ October 2016: The OJK sets up the Team for Development of Economic and Financial Digital Innovations with membership from different OJK work units. The regulator expects to launch a FinTech Innovation Hub shortly. <p>September 2016: The central bank announces its plans to launch a FinTech office next month which will oversee a regulatory sandbox.¹³¹</p>
Int'l/ Regional Orgs		G20 Arab Monetary Fund		<ul style="list-style-type: none"> ▪ April 2018: The Arab Monetary Fund publishes a report on digital financial services in the Arab region. The report highlights the potential of "RegTech" or Regulation Technology sandboxes to offer central banks the opportunity to experiment and

		<p>Basel Committee on Banking Supervision</p> <p>International Monetary Fund</p> <p>International Association of Insurance Supervisors</p> <p>International Telecommunication Union Focus Group on Digital Financial Services</p>		<p>pilot new approaches to help facilitate regulation and supervision that could then be scaled at a national or regional level.¹³²¹³³</p> <ul style="list-style-type: none"> ▪ August 2017: The Basel Committee on Banking Supervision releases a report titled, Sound Practices: Implications of FinTech developments for banks and bank supervisors. The report "The BCBS's survey of innovation hubs, accelerators and sandboxes suggests that these terms are tailored to the individual authority and should therefore be approached with caution."¹³⁴ ▪ June 2017: The International Monetary Fund (IMF) releases a report covering initial considerations related to FinTech in the financial services sector. On regulatory sandboxes, the IMF said that while these can provide valuable insight, they are not "a substitute for effective, permanent regulatory frameworks that will eventually need to be put in place."¹³⁵ Separately, the Financial Stability Board publishes a report covering financial stability implications stemming from FinTech.¹³⁶ ▪ March 2017: The International Telecommunication Union Focus Group on Digital Financial Services publishes a list of 85 policy recommendations, which include a number of recommendations covering DLT and FinTech. The recommendations in the report include the use of regulatory sandboxes to encourage DLT and FinTech innovation.¹³⁷ ▪ February 2017: The International Association of Insurance Supervisors (IAIS) published a document covering FinTech developments in the insurance industry. On the challenges facing supervisors going forward, the IAIS noted that they will need to be able to balance the risks of new innovations against the benefits for policyholders and the insurance sector as a whole, not to mention creating conducive environments (sandboxes and/or hubs) to foster innovation.¹³⁸ ▪ January 2017: Bank of England governor Mark Carney gave prepared remarks where he discussed FinTech's promise and where supervisors can to refresh their approaches to innovation, including the creation of regulatory sandboxes. "The G20 might consider the extent to which such approaches should be adopted more widely."¹³⁹
Israel	Discussed	<p>Israel Securities Authority (ISA)</p> <p>Bank of Israel</p> <p>Ministry of Finance</p> <p>Ministry of justice</p>		<ul style="list-style-type: none"> ▪ July 2018: The ISA established a FinTech Innovation Hub. The initiative is aimed at prompting common discourse between the ISA and relevant players in the field of Fintech. The ISA encourages FinTech companies and entrepreneurs to engage the ISA in order to learn and understand the relevant regulatory framework and adjust their activity to meet regulatory standards through guidance of the ISA staff.¹⁴⁰ ▪ June 2018: The Bank of Israel publishes a policy "that regulates, clarifies and simplifies the process of establishing a bank...." Allows parties wishing to establish a bank to obtain a limited bank license.¹⁴¹

		Capital Market, Insurance and Saving Authority		<ul style="list-style-type: none"> ▪ March 2018: ISA Committee for the Examination and Regulation of ICOs submitted an interim report to the chair of the ISA which recommends, among other recommendations, that ISA should define a provisional framework for ICOs pilots, in the form of a regulatory sandbox....¹⁴² ▪ February 2018: Israel's Ministry of Finance relaxes requirements to obtain an insurance license in the country.¹⁴³ ▪ January 2018: In accordance with the government's decision regarding the establishment of an experimental environment for FinTech companies, the Minister of Finance appointed an interoffice team to examine the option of creating an adopted regulatory environment for companies using new technology for the supply of financial products and services.¹⁴⁴ ▪ December 2017: The central bank's supervisor of banks gives prepared remarks on compliance requirements over the past decade. Among the list of directions where progress should be made: "to encourage innovation and competition in the financial sector, a "regulatory sandbox" should be defined, which will enable FinTech companies to enter it and easily open a bank account, with an easing of the banks' compliance requirements regarding such companies."¹⁴⁵ ▪ February 2017: The Ministry of Finance and the Ministry of justice, with all the finance regulatory authorities, are establishing a regulatory sandbox for Fintech start-ups that will allow them to test their technologies, services and business models on the Israeli market, with minimal legal requirements and without having to undergo a full licensing process.¹⁴⁶ ▪ 2017: The Ministry of Finance and the Ministry of justice published draft legislative memorandums - the Payment Services Contract Bill, which deals with consumer protections, and the second, the Control of Financial Services Bill, which deals with licensing of payment service providers. The Capital Market Authority will be the regulator that supervises the entities that will be licensed under the Control of Financial Services Law.¹⁴⁷¹⁴⁸
Jamaica	Discussed	Bank of Jamaica		<ul style="list-style-type: none"> ▪ April 2018: In a presentation, Novelette Panton discusses the central bank's regulatory framework to support FinTech in the payment system. Part of the Bank of Jamaica's "FinTech regulatory journey" includes sandbox development and application assessment and reporting.¹⁴⁹
Japan	Discussed	<i>Federal</i> Financial Services Agency Japan's cabinet		<ul style="list-style-type: none"> ▪ August 2018: The first meeting of Evaluation Committee for Regulatory Sandbox was held on August 31.¹⁵⁰ Separately, the FSA announces the outcome of its third experiment - regulatory compliance using artificial intelligence) under the FinTech PoC Hub. ▪ July 2018: Japan's FSA announces the outcome of the first experiment (KYC using blockchain technology) under the FinTech PoC Hub.¹⁵¹

			<ul style="list-style-type: none"> ▪ June 2018: The government posted the basic policy of a Regulatory Sandbox scheme in Japan (in Japanese currently).¹⁵² ▪ December 2017: Japan's cabinet published a report titled, New Economic Policy Package. The report includes the institutionalization of a regulatory sandbox. The cabinet noted that the government "will submit a bill aiming to establish a project based regulatory “sandbox” at the next regular session of the Diet." The amendments submitted will revise the National Strategic Special Zones Act "to establish an area-limited regulatory sandbox in a national strategic economic zone...."¹⁵³ ▪ September 2017: While at the New York Stock Exchange, Prime Minister Shinzo Abe spoke on technological innovation and regulatory reforms. “When one wants to conduct a world-first trial, such as with new financial services made possible through FinTech, it is impossible to predict the sort of regulations with which the trial will come into conflict. I suspect that situation has hindered the commercialization of revolutionary ideas. I want to establish a ‘regulatory sandbox system.’ We will make a ‘sandbox’ in which it is possible for certain participants to conduct trial and error freely on new businesses for a certain period of time, without conforming to existing regulations. This is the ultimate in regulatory reform. I would like people from all around the world imbued with a venture spirit to come to Japan, by all means.”¹⁵⁴ Separately, Japan’s FSA announced a FinTech Proof-of-Concept Hub. It is expected "that the learnings from the Hub over a period of up to two years will be used to develop a fully-fledged regulatory sandbox...."¹⁵⁵ ▪ July 2017: The Financial Services Agency has stated its intent to create a FinTech PoC Hub, a precursor to a regulatory sandbox. Tests are expected to cover a variety of technologies, including blockchain, and will last anywhere between six months and two years.¹⁵⁶ ▪ May 2017: A government panel tasked with finding ways to promote innovation unveils a proposal calling for a regulatory sandbox. “Prime Minister Shinzo Abe's government has designated special zones to serve as beachheads for deregulation.”¹⁵⁷
	Discussed	<p>Metro</p> <p>Tokyo Metropolitan Government</p>	<ul style="list-style-type: none"> ▪ February 2017: The Advisory Panel for Global Financial City Tokyo discusses regulatory sandboxes during a meeting. “In the UK and Singapore, sandboxes have been introduced, but there are very few people who actually understand how the sandbox works. That is what [Mr. Hiromi Yamaoka, BOJ Director-General, Payment and Settlement Systems Department] indicated. He pointed out to use the word “sandbox” in an effective manner in promotion, and make people know that Tokyo is actively attracting FinTech.”¹⁵⁸

				<ul style="list-style-type: none"> ▪ June 2017: The Tokyo Metropolitan Government (TMG) is currently putting together a new plan termed "Financial System Reform in Tokyo - Tokyo's Big Bang". The report focuses on how Tokyo intends to attract FinTech startups, including the implementation of an accelerator program, studying issues "that will contribute to the formation of a FinTech ecosystem," and studying whether to implement a regulatory sandbox.¹⁵⁹
Jordan	Operational	Bank of Jordan	AE	<ul style="list-style-type: none"> ▪ May 2018: The Central Bank of Jordan begins accepting regulatory sandbox applicants. Governor HE Dr. Ziad Fariz announced the acceptance of the first applicant to enter the sandbox.¹⁶⁰¹⁶¹ ▪ April 2018: The central bank and the Alliance of Financial Inclusion held a Technology Policy Forum with 100 decision makers from around the world.¹⁶² ▪ March 22, 2018: A project paper on a proposed grant to the Kingdom of Jordan to promote financial inclusion policies, authored by the World Bank, emphasizes the need for a regulatory sandbox to facilitate the development and adoption of FinTech. The cost (\$550,000 --> \$275,000 for establishing the sandbox and \$275,000 for financing small-scale pilots in the area of FinTech).¹⁶³ ▪ February 2018: The central bank unveils its support for FinTech. Announces that its regulatory sandbox will be fully functioning by the end of June 2018.¹⁶⁴ ▪ December 2017: Regulatory sandbox first announced during the launch of the National Financial Inclusion Strategy.
Kazakhstan	Operational	Astana International Financial Centre (AIFC) Astana Financial Services Authority (AFSA)		<ul style="list-style-type: none"> ▪ August 2018: Financial services activities specified in the Sandbox Permission are exempted from corporate income tax. ▪ July 2018: Official launch of the AIFC.¹⁶⁵ ▪ February 2018: First FinTech companies obtain Sandbox permission to test their innovations. ▪ January 2018: Astana Financial Services Authority (AFSA) launches as the independent regulator of the AIFC.¹⁶⁶ ▪ July 2017: AIFC announces the creation of a working group to develop its FinTech ecosystem, including discussions on the launch of a regulatory sandbox.¹⁶⁷ ▪ May 2017: Astana Financial Services Authority releases its FinTech regulatory sandbox guidance.¹⁶⁸
Kenya	Proposed	Capital Markets Authority		<ul style="list-style-type: none"> ▪ July 2018: The East African Securities Regulatory Authorities adopt a regional framework "for fit and proper assessment of market practitioners." The regulators agreed to employ regulatory sandboxes, with a sample application and evaluation criteria adopted to help guide member states on implementation.¹⁶⁹ Separately, the Capital Markets Authority, in partnership with FSD Kenya engaged with Open Capital Advisors to map out Kenya's Fintech market "and identify use cases on how a regulatory sandbox could drive innovation. This was done to lay the foundation for

				<p>the establishment of a regulatory sandbox regime in order to promote innovation in the FinTech space."¹⁷⁰ Lastly, the CMA publishes its Capital Markets Strategic Plan 2018 – 2023. One of the objectives of the plan, which will help to reinforce FinTech and regulatory sandbox initiatives, is leveraging technology to drive capital markets value chain.¹⁷¹</p> <ul style="list-style-type: none"> ▪ June 2018: According to Paul Muthaura, CEO, Capital Markets Authority of Kenya, the FinTech Sandbox Policy will be ready by July 2018.¹⁷² ▪ August 2017: Kenya's Capital Markets Authority publishes a report titled, Stakeholders' Consultative Paper on Policy Framework for Implementation of a Regulatory Sandbox to Support Financial Technology (FinTech) Innovation in the Capital Markets in Kenya.¹⁷³ ▪ June 2017: Kenya's Capital Markets Authority publishes a consultative paper on the implementation of a regulatory sandbox to support FinTech innovation in the capital markets.^{174,175} ▪ September 2016: The Capital Markets Authority publishes a concept paper on the feasibility of using a regulatory sandbox.¹⁷⁶ ▪ April 2016: Kenya's CMA publishes its Capital Market Master Plan 2014-2023. Kenya intends to build on recent market reforms to address regulatory and institutional constraints in order to strengthen market infrastructure, intermediation, oversight and governance standards. In addition, Kenya will also seek to stimulate innovation to broaden product and service offerings, deepen market participation and liquidity, and drive transformative economic development.¹⁷⁷
Lithuania	Proposed	Bank of Lithuania Ministry of Finance	SV	<ul style="list-style-type: none"> ▪ August 2018: Phase I of LBChain pre-commercial procurement (Development of LBChain concept) has started. Four companies (Deloitte, IBM, Tieto, Inntec) creating concept of LBChain platform-service.¹⁷⁸ ▪ March 2018: The central bank issues a call for proposals for software developers from around the world to submit proposals for the development of LBChain.¹⁷⁹ ▪ January 2018: The central bank launches a blockchain sandbox platform-service, LBChain - allowing foreign and domestic companies to develop and test blockchain-based solutions.¹⁸⁰
			AE	<ul style="list-style-type: none"> ▪ September 2018: The central bank announces that its regulatory sandbox will open for applicants on October 15, 2018.¹⁸¹ ▪ August 2017: The central bank announced that it is creating a regulatory sandbox. 'In creating an innovations-friendly space we aim to provide the best possible conditions for the development of financial technologies and creating the most favourable environment for FinTech companies in the entire Nordic-Baltic region,' said Vitas Vasiliauskas, Chairman of the Board of the Bank of Lithuania.^{182,183}

				<ul style="list-style-type: none"> ▪ April 2017: Ministry of Finance submits proposals to further develop the FinTech sector in the country, including the expansion of the Newcomer Program for foreign companies relocating to Lithuania.¹⁸⁴ ▪ December 2016: The Bank of Lithuania announced the Newcomer Program which applies to licensed firms in another EU country that would like to domicile in Lithuania. Full authorization will be issued 2-6 months later.¹⁸⁵
Malaysia	Operational	Bank Negara Malaysia Securities Commission Malaysia		<ul style="list-style-type: none"> ▪ December 2017: The Securities Commission Malaysia announces that parties "interested in establishing and operating an Alternative Trading System (ATS) in Malaysia can apply to participate in regulatory sandbox sessions under the SC's FinTech Innovation Lab (aFINity – alliance of FinTech community).¹⁸⁶ ▪ October 2017: BNM approves three more participants for its sandbox.¹⁸⁷ ▪ May 2017: BNM approves the first batch of participants to its sandbox.^{188,189} ▪ October 2016: The central bank issues its FinTech Regulatory Sandbox framework.¹⁹⁰ The central bank received over 60 comments and suggestions to help guide the development of the Framework, which now takes immediate effect. ▪ July 2016: The central bank releases a discussion paper on a Regulatory Sandbox. Interestingly, the paper states that priority "will be accorded to applications for the deployment and operation of a Sandbox received from financial institutions and/or FinTech companies that intend to collaborate with financial institutions."¹⁹¹ ▪ June 2016: The central bank establishes the Financial Technology Enabler Group - "a cross-functional committee responsible for formulating and enhancing regulatory policies to facilitate the adoption of technological innovations in the Malaysian financial services industry."¹⁹²
Malta	Proposed	Malta Gaming Authority (MGA)	SV	<ul style="list-style-type: none"> ▪ July 2018: The MGA publishes its 2017 Annual Report and Financial Statements. Included in the report is mention of regulatory sandboxes with MGA expected to issue "a set of criteria for public consultation, for the establishment of a sandboxed (test and learn) live environment for cryptocurrency adoption within the online gaming sector, whilst also drafting guiding principles for the application of DLT and its various adaptations within the industry."¹⁹³ ▪ March 2018: The MGA issues a consultation document on a sandbox environment for distributed ledger technology and virtual currencies.¹⁹⁴ ▪ December 2017: The Malta Gaming Authority issues a call for interested parties to register interest and provide details on DLT and/or cryptocurrency projects. "In this respect, the MGA is currently in the process of establishing the sandboxed (test and learn) live environment for cryptocurrency usage within the remote gaming sector, whilst also drafting guiding principles for the application of DLT and its various adaptations within the industry."¹⁹⁵

Mauritius	Operational	Economic Development Board Financial Services Commission	AE	<ul style="list-style-type: none"> ▪ September 2018: The Financial Services Commission (FSC) issued a Guidance Note on the Recognition of Digital Assets as an asset-class for investment by Sophisticated and Expert Investors. Through this Guidance Note, the FSC seeks to provide clarifications to its licensees and stakeholders on its position regarding investment in Digital Assets, including Cryptocurrencies.¹⁹⁶ Separately, the first meeting of the National Regulatory Sandbox Licence (RSL) Committee, established following the recommendations of the Regulatory Committee on Fintech and Innovation-Driven Financial Services, was held at the seat of the FSC. The National RSL Committee will operate as an independent committee to coordinate the procession of all RSL applications made to the EDB in relation to FinTech.¹⁹⁷ ▪ May 2018: The FinTech and Innovation-Driven Financial Services Regulatory Committee releases its report identifying priority areas in the FinTech space to be considered for regulation.¹⁹⁸ ▪ February 2018: The Financial Services Commission formally launches the FinTech and Innovation-Driven Financial Services Regulatory Committee.¹⁹⁹ The Committee held its first meeting on February 9.²⁰⁰ ▪ November 2017: The FSC issued the Draft Financial Services (Peer to Peer Lending) Rules 2017 following the announcement made in the last Budget Speech 2017/18.²⁰¹ ▪ June 2017: The FSC releases its Annual Report 2016/2017. The report highlights the FSC's Strategic Plan 2017 - 2020 which includes "Leveraging on Innovation and Cutting Edge Information Technology" as a key pillar of the plan. Included in that pillar - a regulatory sandbox regime to facilitate and promote FinTech and RegTech enterprises.²⁰² ▪ May 2017: The BOI approves the issuance of its first Regulatory Sandbox License to a crowdfunding platform. At this time there are 12 other projects in the pipeline for an RSL.²⁰³ ▪ October 2016: The government launches the Regulatory Sandbox License following amendments to the Investment Promotion Act 2000.^{204 205 206} ▪ July 2016: Minister of Finance and Economic Development, Pravind Jugnauth, delivers the Budget Speech 2016/2017. Jugnauth announces the introduction of the Regulatory Sandbox License in Mauritius. "The Board of Investment (BOI) may issue approvals, permits and licences to start an innovative project after consulting relevant ministries."²⁰⁷
Mexico	Proposed	National Banking and Securities Commission Ministry of Finance		<ul style="list-style-type: none"> ▪ June 2018: Carlos Orta, vice-president of regulatory policy at the CNBV, was interviewed on Mexico's FinTech Law including interest in regulatory sandboxes.²⁰⁸ ▪ March 2018: Mexico's lower house of Congress approved a bill to regulate Fintech. The legislation now awaits President Enrique Pena Nieto's signature.²⁰⁹ Nieto promulgated the Law for the Regulation of Financial Technology Institutions several

		Bank of Mexico		<p>days later.²¹⁰ The Law includes the formation of a regulatory sandbox modeled after the UK FCA's sandbox.²¹¹</p> <ul style="list-style-type: none"> ▪ December 2017: Mexico's Senate approves a FinTech bill.²¹² ▪ November 2017: The Federal Economic Competition Commission (COFECE) released a statement concerning the draft FinTech law published by the Federal Regulatory Improvement Commission. According to the COFECE, "Within the framework of the collaboration agreement signed between COFECE and the Federal Regulatory Improvement Commission (Cofemer), on September 19, the latter sent this competition authority the draft Law to regulate FinTech institutions, with the purpose of obtaining its opinion regarding the effects of the law on economic competition and free market access. Said collaboration agreement grants COFECE a response-time of 20 business days. However, on October 3, Cofemer published the General Opinion of the Draft Law, that is, before COFECE's deadline to issue its opinion. Thus, Cofemer's opinion establishes its request for COFECE's opinion; Cofemer has not yet received COFECE's observations, in fact the response times established in the referred agreement have not yet expired." As a result, COFECE "will submit an opinion to the legislative committees responsible for ruling the draft law in Congress, in a timely manner."²¹³ ▪ October 2017: Mexico's FinTech law was received by the Senate after being proposed by the Mexican presidency.²¹⁴
Mozambique	Operational	Bank of Mozambique		<ul style="list-style-type: none"> ▪ May 2018: The central bank and the Financial Sector Deepening Mocambique (FSDMOC) launch a regulatory sandbox to promote FinTech innovation.²¹⁵ "In a first phase, the initiative will benefit previously selected start-up companies. FinTech companies will then be selected through a competitive process."²¹⁶
Netherlands	Operational	De Nederlandsche Bank Netherlands Authority for the Financial Markets		<ul style="list-style-type: none"> ▪ November 2017: H.M. Queen Máxima of the Netherlands gives prepared remarks on inclusive technology for an inclusive future. According to Queen Máxima, "more than 30 regulatory sandboxes have been launched since 2015, with the aim of providing a safe home for new ideas to be tested, while regulators learn how to adjust their regulatory and supervisory frameworks. I hope that sandboxes may allow innovation in digital financial services. But it is still too early to say how effective these will be. In the meantime, we need to continue to develop a toolbox of approaches to good regulatory and business practices, including improved data collection to better understand risks based on common, agreed-on definitions of FinTech activities."²¹⁷ ▪ June 2017: In response to the EU's consultation document - FinTech: A More Competitive and Innovative European Financial Sector - the AFM, DNB, Ministry of Finance, and Authority for Consumers and Markets state their support for "a proactive role for the Commission or the ESAs to stimulate convergent sandbox

				<p>initiatives taken by national authorities in support of FinTech and to support the cross-border sharing of best practices and sandbox outcomes, as sandboxes shouldn't lead to regulatory competition between MS." However, "We do not see merits in establishing a European regulatory sandbox, nor a European regulatory sandbox targeted specifically at FinTechs wanting to operate cross-border."²¹⁸</p> <ul style="list-style-type: none"> ▪ December 2016: The Authority for the Financial Market and De Nederlandsche Bank are joining together to launch a regulatory sandbox. "As of the beginning of 2017, in addition to the 'regulatory sandbox', companies could also take advantage of partial authorisation, an authorisation with requirements or restrictions, or an opt-in authorisation."²¹⁹²²⁰²²¹ ▪ July 2016: DNB and AFM interviewed about the June 2016 discussion document and innovation in the financial services sector.²²² ▪ June 2016: AFM and DNB release a discussion document on innovation in the financial sector which explores various options including the implementation of a regulatory sandbox. "This is why it is important to emphasise that a regulatory sandbox in the interpretation of the AFM and DNB is a controlled experiment where market operators can test innovative concepts with the approval of the supervisory authorities. The authority issuing the authorisation assesses each experiment on a case by case basis."²²³ ▪ October 2015: DNB publishes a report titled, Technological Innovation and the Dutch Financial Sector. The report includes brief mention of regulatory sandboxes, including FCA implementation.²²⁴
Nigeria	Proposed	<p>The Central Bank of Nigeria (CBN)</p> <p>Nigeria Interbank Settlement System (NIBSS)</p> <p>Securities and Exchange Commission Nigeria</p>	AE	<ul style="list-style-type: none"> ▪ July 2018: The CBN releases an Exposure Draft of the national financial inclusion strategy. Included is discussion on the opportunity a regulatory sandbox can play to support financial inclusion efforts.²²⁵ ▪ March 2018: CBN and NIBSS unveil a regulatory sandbox, Financial Industry Sandbox, which will be managed by the Financial Service Innovators Association of Nigeria, under the supervision of CBN and NIBSS.²²⁶²²⁷ ▪ (Future): The Securities and Exchange Commission unveils a regulatory sandbox consultation. The SEC is anticipating launching a sandbox in the near future.
Norway	Discussed	Finanstilsynet	AE	<ul style="list-style-type: none"> ▪ June 2018: According to reports, the Norwegian parliament has called for a regulatory sandbox for the FinTech industry to launch by the end of 2019. "The majority believe that by facilitating new players and new business models, the government can contribute to a more diversified and robust offering of financial services, which in turn reduces systemic risk in financial markets,"²²⁸

				<ul style="list-style-type: none"> ▪ April 2018: ICT Norway receives funding from the Financial Market Fund to investigate the need for a regulatory sandbox for FinTech, and recommend how it can be implemented in Norway. The work is carried out in cooperation with Finans Norge, and the report will be handed over to the Ministry of Finance.²²⁹ ▪ March 2018: Helsinki Fintech Farm, Copenhagen Fintech, Oslo Fintech Hub and Finance Innovation from Bergen teamed up to launch the Nordic Fintech Alliance.²³⁰ ▪ November 2017: Oslo FinTech Hub launches.²³¹ ▪ October 2017: ICT-Norway, in collaboration with law firm Selmer, provides a free FinTech regulatory guide for entrepreneurs.²³² ▪ August 2017: More than 20 banks and tech companies in Bergen have joined together to launch a FinTech hub.²³³ ▪ December 2016: A majority of the Norwegian Parliament voted to support a proposal to establish a regulatory sandbox in the country.²³⁴
Philippines	Operational	Bangko Sentral NG Philipinas	AE	<ul style="list-style-type: none"> ▪ August 2018: Central Bank governor Nestor Espenilla, Jr. gives prepared remarks on the central bank's evolution in the digital age.²³⁵ The bank's regulatory approach is shaped by three core principles: ensuring that regulation is risk-based, proportionate, and fair; maintaining active multi-stakeholder collaboration; and ensure consumer protection.²³⁶ ▪ April 2018: Central Bank governor Nestor Espenilla, Jr. gives prepared remarks on navigating the digital frontier. Espenilla states that the bank "remains committed to establishing a regulatory environment that allows innovations to flourish. Our 'test and learn' approach or regulatory sandbox remains useful in dealing with increasing digital financial innovations in the market."²³⁷
Russia	Operational	Bank of Russia	SV	<ul style="list-style-type: none"> ▪ September 2018: Ivan Semagin, deputy director of the financial development department of the bank, announced that the Bank of Russia successfully conducted an experiment on token issuance. The test was originally announced in May.²³⁸ ▪ August 2018: A product developed by Sberbank becomes the first to pass the piloting phase of the Bank of Russia's regulatory sandbox.²³⁹ Separately, the central bank holds a workshop dedicated to the functioning of the regulatory sandbox.²⁴⁰ ▪ July 2018: The central bank presents on the Russian financial sector. The presentation includes "regulatory sandbox" under key areas of development.²⁴¹ ▪ June 2018: Reports surface that state that two of Russia's largest banks are testing cryptocurrency-based investment options for retail investors through the Russian central bank's regulatory sandbox.²⁴² ▪ May 2018: Sberbank and the National Settlement Depository announced that they will pilot the first initial coin offering in the country using the sandbox.²⁴³ ▪ April 2018: Russia's central bank launches its regulatory sandbox.²⁴⁴

				<ul style="list-style-type: none"> ▪ Q4 2017: The central bank releases its financial market risks review. The document focuses, in part, on the regulation of FinTech including mention of the ASEAN Financial Innovation Network and the FCA's third cohort.²⁴⁵ ▪ July 2017: Bank of Russia Governor Elvira Nabiullina discusses the country's approach towards FinTech innovation. "The next step for us to accomplish in the coming years is to create a national FinTech infrastructure i.e. the necessary elements that will be beneficial to and in demand by all market players and will ensure that players of all sizes have convenient access to the market. The national infrastructure will foster competition in the market, encourage new financial ecosystems and, as a result, provide cheaper and better quality products to the public."²⁴⁶ ▪ December 2016: The central bank established the FinTech Association with participation from Russia's largest financial institutions.²⁴⁷ ▪ June 2016: Bank of Russia Governor Elvira Nabiullina discusses structural reform and banking system challenges. "On a final note on the banking sector, I would like to announce another initiative [U]ndoubtedly, both the regulator and the bank community need to be abreast of all recent trends and best business practices. This is the reason we have decided to launch an establishment that would be akin to a corporate university. This facility will operate on a permanent Bank of Russia-based platform, inviting global and Russian industry leaders to enable opinion exchange on development trends."²⁴⁸
Rwanda	Proposed	Rwanda Utilities Regulatory Authority (RURA) Rwanda Capital Markets Authority	AE	<ul style="list-style-type: none"> ▪ July 2018: The East African Securities Regulatory Authorities adopt a regional framework "for fit and proper assessment of market practitioners." The regulators agreed to employ regulatory sandboxes, with a sample application and evaluation criteria adopted to help guide member states on implementation.²⁴⁹ ▪ March 2018: RURA workshop on the 4th industrial revolution with a panel discussion on the sandbox framework.²⁵⁰ ▪ November 2017: Rwanda Utilities Regulatory Authority releases its draft regulatory sandbox framework (version 1.0).²⁵¹
Saudi Arabia	Operational	Saudi Arabian Monetary Authority (SAMA) Saudi Arabia Capital Market Authority	AE	<ul style="list-style-type: none"> ▪ July 2018: The Capital Market Authority grants a FinTech experimental permit to Manafa Capital to create and equity crowdfunding platform.²⁵² The Authority also grants a permit to Scopeer to create an equity crowdfunding platform.²⁵³ It's been reported that Saudi Arabia is discussing a coordinated approach to the regulation and nurturing of FinTech startups with the UAE and Bahrain. "We're working on establishing some collaborations where we would give different assignments between different central banks and FinTech hubs to develop a (common) GCC output when it comes to FinTech," said Mishari Al-Assailan, the acting head of Fintech Saudi.²⁵⁴

				<ul style="list-style-type: none"> ▪ June 2018: The SAMA publishes its Financial Stability Report 2018. According to the report, SAMA "is currently developing a Regulatory Sandbox that will provide a light touch risk based approach to testing innovative FinTech products."²⁵⁵ ▪ May 2018: The Saudi Arabian Monetary Authority, together with Deloitte Middle East, announced plans to develop a FinTech ecosystem - FinTech Saudi - which aligns with the Kingdom's Vision 2030 program to enhance the country's competitiveness globally and develop its financial sector.²⁵⁶ ▪ January 2018: The Board of Authority issues a resolution approving the FinTech Experimental Permit Instructions, effective upon their publication.^{257 258}
Sierra Leone	Operational	Central Bank of Sierra Leone	AE	<ul style="list-style-type: none"> ▪ May 2018: The central bank announces the winners of the Sierra Leone FinTech Challenge and the first participants to its sandbox.^{259 260 261} In remarks, Dr. Patrick Conteh, governor of the central bank, stated that the challenge was jointly organized and supported by the central bank, FSD Africa, UK Aid, UNCDF MM4P, and USAID.²⁶² The Consultative Group to Assist the Poor (CGAP) released a detailed overview of the sandbox.²⁶³ ▪ April 2018: The central bank launches its Regulatory Sandbox pilot program after receiving responses to its consultation.²⁶⁴ Sierra Leone is the second country in Africa to launch a sandbox (Kenya).²⁶⁵ ▪ September 25, 2017: The central bank, with support from the United Nations Capital Development Fund (UNCDF) Mobile Money for the Poor (MM4P) and the Financial Sector Deepening Africa, releases a Proposed Regulatory Sandbox Pilot Program Framework for public comment and feedback through October 10, 2017.
Singapore	Operational	Monetary Authority of Singapore		<ul style="list-style-type: none"> ▪ August 2018: MAS is one of 11 regulators from around the world to sign on as a member of the Global Financial Innovation Network.²⁶⁶ ▪ July 2018: MAS publishes its 2017/2018 Annual Report. The report notes that the regulators sandbox has received more than 40 applications, with 5 sandbox candidates. The sandbox has also provided guidance to 140 firms and individuals.²⁶⁷ ▪ November 2017: In an interview with The Business Times, MAS managing director Ravi Menon states that the approval process for FinTechs to join the regulatory sandbox has been slow. "We have quite a few in the pipeline. We are taking a while longer to evaluate them. One would have hoped we could have approved sandbox applications in weeks rather than months. But, we are learning ourselves - we're in the sandbox, too. We are working out reduced requirements, looking at what are the requirements we can lift." At present, two entities have launched in the regulatory sandbox so far - PolicyPal (graduated) and Kristal Advisors (till 2018).²⁶⁸ Separately, Ong Ye Kung, Minister for Education, gives prepared remarks on the MAS regulatory sandbox which parallel Menon's remarks in that MAS will seek to

				<p>expedite the sandbox process and loosen regulatory boundaries where the risks don't outweigh the potential benefits to consumers.²⁶⁹</p> <ul style="list-style-type: none"> ▪ August 2017: InsurTech startup PolicyPal becomes the first firm to graduate from the MAS regulatory sandbox.²⁷⁰ ▪ March 2017: InsurTech startup PolicyPal receives approval from MAS to enter its regulatory sandbox. PolicyPal is the first firm to enter the sandbox.²⁷¹ ▪ February 2017: The Committee on the Future Economy releases a report containing strategies to address current and future challenges, including developing "appropriate and flexible regulatory frameworks which support innovation and enable the adoption of technology, such as through regulatory sandboxes."²⁷² ▪ November 2016: MAS issues its regulatory sandbox guidelines for FinTech experiments. The guidelines include three stages that platforms will go through after entering the sandbox, along with a list of legal and regulatory requirements that MAS intends to relax as well as maintain.²⁷³ MAS also releases the responses to its consultation paper.²⁷⁴ ▪ June 2016: MAS proposes a regulatory sandbox for FinTech firms.²⁷⁵²⁷⁶ The consultation paper notes that while financial institutions are free to launch their own innovations without MAS guidance, and provided they adhere to regulatory requirements, "in circumstances where it is less clear to FIs whether a new financial product, service or process (the 'FinTech solution') complies with legal and regulatory requirements, some FIs may err on the side of caution and choose not to pursue the solution. This outcome is undesirable as promising innovations may be stifled and this may result in missed opportunities." Separately, the authority's chief FinTech officer, Sopnendu Mohanty, announced 100 "problem statements"— a list of financial problems that can be solved by technology.²⁷⁷ ▪ March 2017: MAS Managing Director Ravi Menon delivers prepared remarks at the ASIC Annual Forum on "Future Focus". Of interest, Menon said they "not only encourage FinTech innovation by providing a safe space for experimentation. They also give regulators an opportunity to learn the risks associated with new technologies and right-size regulation accordingly." Menon also assessed some of the sandboxes currently in operation.²⁷⁸
South Africa	Discussed	South African Reserve Bank Treasury Financial Sector Conduct Authority	AE / SV	<ul style="list-style-type: none"> ▪ October 2018: The Financial Sector Conduct Authority (FSCA) launched a Fintech unit to address the policy and conduct issues around Fintech that are likely to impact consumers. The FSCA will align its activities with the SARB, FIC inter alia to ensure a cohesive approach to effectively regulating Fintech and related financial offerings.²⁷⁹ ▪ July 2018: The Financial Sector Conduct Authority, the Treasury, the Financial Intelligence Centre, and the South African Reserve Bank (collectively known as the

		Financial Intelligence Centre		<p>intergovernmental FinTech working group (IFWG)) released a report of the inaugural intergovernmental FinTech outreach workshop. The workshop focused on three areas, private crypto assets, FinTech in support of financial inclusion and the establishment of innovation facilitators. The session on innovation facilitators identified insights gained from the experience of other regulators. The IFWG is also working on developing a policy paper to establish South Africa's policy position on FinTech, which is expected to be released in early 2019.²⁸⁰</p> <ul style="list-style-type: none"> ▪ June 2018: The SARB releases its report for Project Khokha. Project Khokha is a proof of concept designed to simulate a 'real-world' trial of a distributed ledger technology (DLT)-based wholesale payment system. The project focused on providing participants practical experience on aspects of using DLT in a realistic test environment where different deployment models were utilized.²⁸¹ ▪ April 2018: The Financial Sector Conduct Authority, the Treasury, the Financial Intelligence Centre, and the South African Reserve Bank hold the first intergovernmental FinTech Working Group workshop.²⁸² Deputy Governor of the South African Reserve Bank, Francois Groepe, provides opening remarks on the five emerging habits that may influence effective FinTech regulation, including the creation of innovation facilitators such as hubs, accelerators and sandboxes.²⁸³ Separately, the Reserve Bank expects the National Credit Regulator and the Competition Commission to join the Intergovernmental FinTech Working Group to harmonize regulation in FinTech. "The Twin Peaks model of financial sector regulation, which is currently being implemented, aims to put in place a regulatory framework that better responds to the dynamic nature of the financial sector, including FinTech."²⁸⁴ ▪ March 2018: The National Payment System Department of the SARB releases its Vision 2025 report, which supports the establishment of an enabling regulatory environment for both banks and non-banks, like FinTech firms, to compete for payment services.²⁸⁵ ▪ February 2018: The SARB announced the three initiatives for its Fintech Program: reviewing SARB's position on private cryptocurrencies; investigate and decide on the applicability for innovation facilitators for the SARB, including the formation of innovation hubs, regulatory sandboxes, and accelerators; and to launch Project Khokha, which will experiment with digital ledger technologies to gain practical understanding of the technology through a proof of concept.²⁸⁶ ▪ August 2017: The SARB announced the establishment of the Fintech Program designed to assess the emergence and regulatory implications of FinTech.²⁸⁷
South Korea	Proposed	Financial Services Commission		<ul style="list-style-type: none"> ▪ September 2018: The National Assembly passed a bill "that grants a regulatory sandbox for new businesses in the information and communication technology

				<p>sector.... The sandbox "offers a regulatory waiver for a set amount of time to businesses to test out innovative products, services and business models in the market."²⁸⁸</p> <ul style="list-style-type: none"> ▪ July 2018: Ruling and opposition parties meet to discuss ways to pass key bills, including a motion to introduce a regulatory sandbox.²⁸⁹ ▪ March 2018: The FSC announced a plan to encourage innovation in the financial sector through, in part, the establishment of a regulatory sandbox. "FSC Chairman Choi Jong-ku said the government is preparing for a new law to support the FinTech industry."²⁹⁰
Spain	Proposed	<p>Secretaría de Estado del Tesoro</p> <p>Comisión Nacional del Mercado de Valores</p>	AE	<ul style="list-style-type: none"> ▪ July 2018: Spain's financial services regulator is currently drafting regulation that would implement a regulatory sandbox in the country. Hogan Lovells and the Spanish FinTech and InsurTech Association worked with the regulator to establish the sandbox.²⁹¹ Modeled after the UK FCA's sandbox supposedly. ▪ May 2018: Congress calls for the development of regulation favoring innovation and blockchain technology, including "favoring its introduction to the market 'through controlled testing environments.'"²⁹²
Sri Lanka	Proposed	Central Bank of Sri Lanka	AE	<ul style="list-style-type: none"> ▪ May 2018: The payments and settlements department of the central bank of Sri Lanka publishes a consultation on the formation of a FinTech regulatory sandbox.²⁹³
Sweden	Discussed	Finansinspektionen	AE	<ul style="list-style-type: none"> ▪ February 2018: The Director General, Erik Thedéen, gives prepared remarks on financial regulation and crises, where he announces the establishment of an Innovation Center at the regulatory authority. On the introduction of a regulatory sandbox, Thedéen stated that this "might introduce limitations on the market in that companies may perceive it as being necessary to be in the sandbox to test innovation. We would also not prefer to select a few companies that will receive different treatment than those outside the sandbox. The Innovation Center will enable us to strengthen the conditions for testing financial innovations through a more open dialogue with the companies."²⁹⁴ ▪ December 2017: Sweden's financial regulatory authority publishes a report, <i>FI's role regarding innovation</i>, which includes a deeper discussion on the authority's Innovation Center. The report finds that the Innovation Center will achieve the primary functions of a regulatory sandbox "while avoiding the limitations of a sandbox, such as selective grouping, which can be considered to benefit some companies at the cost of others, and conflicts of interest if companies perceive the authority to be standing behind or taking responsibility for certain innovations." The report also notes that established financial companies and private equity firms highlighted the advantages of a Swedish regulatory sandbox to the authority. "An Innovation Center creates a forum for dialogue, and not just for companies that are uncertain about rules, processes and principles. It is available for all companies that

				<p>plan to test new services. FI is not obligated to intervene if a determined breach is negligible or excusable and the company rectifies the deficiency. The companies' need for support and guidance to test innovations thus can be fulfilled without establishing a regulatory sandbox. Innovation is strong in Sweden, and FI makes the assessment that there are no real negative effects from deciding at this point in time not to establish a regulatory sandbox. This means there is also no need at this point to consider any regulatory changes.²⁹⁵</p> <ul style="list-style-type: none"> ▪ June 2017: Klarna is granted a full banking license after a 20 month application process.²⁹⁶ Separately, in response to the European Commission's FinTech consultation, the regulator stressed that the establishment of a regulatory sandbox should not be restricted to just FinTech, but enable a level playing field for all types of new innovations. The regulator also considered centralizing licensing, sandboxes, and supervision to the European Supervisory Authorities "could prolong the time-to-market for many products, thereby hindering competition in the EU."²⁹⁷ ▪ May 2017: The Swedish regulator receives an assignment from the Swedish National Innovation Council "to investigate how the FSA could handle questions and needs of financial businesses offering new and innovative services."²⁹⁸
Switzerland	Operational	Swiss Federal Council FINMA		<ul style="list-style-type: none"> ▪ August 2018: As a result of the Swiss Parliament's actions towards a new licensing category for FinTech firms, FINMA opened up a consultation to revise its Anti-Money Laundering Ordinance (AMLO-FINMA).²⁹⁹ Meanwhile, the Blockchain/ICO Working Group publishes a consultation covering the work carried out up to this point and preliminary recommendations. A final report is expected to be released by the end of the year.³⁰⁰ ▪ June 2018: The federal council initiated a public consultation on the details of the Fintech-license (on the ordinance level) which was adopted a week earlier by the parliament (on the law level). The new license is expected to be in force by January 2019.³⁰¹³⁰² ▪ January 2018: Amendments to FINMA circular, Public deposits with non-banks, take effect.³⁰³ Separately, the State Secretariat for International Financial Matters establishes a Blockchain/ICO Working Group to review the legal framework and identify potential needs for action and present courses of action. "The work will be carried out in a steering committee consisting of the SIF State Secretary, Jörg Gasser (chair), the Director of the FOJ, Martin Dumermuth, and the Director of FINMA, Mark Branson."³⁰⁴ ▪ December 2017: FINMA publishes its revised circular, Public Deposits with non-banks.³⁰⁵ ▪ November 2017: Jorg Gasser, Switzerland state secretary for international financial matters, was interviewed on CNBC: ""We have established a sandbox where we try

				<p>to remove barriers to entry into the market. Our regulation should remove any barriers, and for that purpose we have to have installed a sandbox that allows small FinTech firms to flourish without any regulation, whatsoever, until to a certain degree. They're able to accept 1 million Swiss Francs without a regulatory system." Once out of the regulatory sandbox, the regulation will be according to their size, according to Gasser.³⁰⁶</p> <ul style="list-style-type: none"> ▪ September 2017: FINMA amends its circular, Public deposits with non-banks, as a result of the Federal Council's new FinTech regulations regarding the regulatory sandbox and the timeframe for settlement accounts. "The new sandbox concept defined in the revised Banking Ordinance allows for public deposits to be accepted without a licence up to a limit of CHF 1 million, provided that they are not invested and do not bear interest, even if such deposits come from more than 20 depositors. Depositors must be informed in advance that the sandbox is not subject to FINMA supervision and that the deposits are not covered by the deposit protection scheme."³⁰⁷ ▪ August 2017: The amendments to the Banking Ordinance enter into force.³⁰⁸ ▪ July 2017: The Swiss Federal Council adopted an amendment to the Banking Ordinance which aims to regulate FinTech firms. "an innovation area will be created: the acceptance of public funds up to CHF 1 million will no longer be classified as operating on a commercial basis in the future and will be exempt from authorisation. This change should allow firms to try out a business model before they are finally required to obtain authorisation in the case of public funds of over CHF 1 million. It should also be clearly stated to depositors that their deposits are not protected by deposit protection." Also, FinTech business models are still subject to the full list of AML/CTF regulations as any other business.³⁰⁹ ▪ February 2017: The Swiss Federal Council initiates a consultation on proposed amendments to the Banking Act and Banking Ordinance that "aim to regulate FinTech and other firms which provide services outside normal banking business according to their risk potential." The proposed amendments also refer to the creation of a regulatory sandbox in that the proposed changes "should allow firms to try out a business model before they are finally required to obtain authorization."³¹⁰ ▪ November 2016: Switzerland's cabinet approves "light-touch" regulations covering FinTech. The draft legislation is expected to be sent to parliament by mid-2017, following a public consultation. The legislation includes a 60-day holding deadline for money sitting in settlement accounts, creating a sandbox for innovative platforms with public funding support and oversight by FINMA, and establishing FinTech-specific licenses.³¹¹³¹²
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Taiwan	Operational	Financial Supervisory Commission	AE	<ul style="list-style-type: none"> ▪ September 2018: The Financial Supervisory Commission approves the first experiment in the nation’s regulatory sandbox, which will begin in early December.³¹³ ▪ December 2017: Lawmakers passed the Act on Financial Technology Innovations and Experiments, which was inspired by the UK FCA's regulatory sandbox. "Firms that have passed an assessment to use the sandbox would be allowed to bypass — in part or in full — certain regulations after gaining the approval of the Financial Supervisory Commission (FSC), the act stipulates."³¹⁴
Tanzania	Discussed	Capital Market Authority		<ul style="list-style-type: none"> ▪ July 2018: The East African Securities Regulatory Authorities adopt a regional framework "for fit and proper assessment of market practitioners." The regulators agreed to employ regulatory sandboxes, with a sample application and evaluation criteria adopted to help guide member states on implementation.³¹⁵
Thailand	Operational	Bank of Thailand Securities and Exchange Commission Thailand Insurance Regulatory Commission (IOC)		<ul style="list-style-type: none"> ▪ August 2018: The Secretary General of the Insurance Regulatory Commission, Dr. Suttiphol Taveechai, gave remarks at a seminar titled, Insurance Regulatory Sandbox - Opportunities for Insurance Business.³¹⁶ ▪ July 2018: The central bank is reviewing several blockchain applications through its regulatory sandbox focused on document authentication, supply chain financing and cross-border payments.³¹⁷ ▪ May 2018: Thailand's Bank of Ayudhya pilots cross-border transaction using Krungsri Blockchain Interledger. The pilot was conducted in a joint effort with MUFG Bank, Mitsubishi Corporation, and Standard Chartered Bank Singapore under the Bank of Thailand's Regulatory Sandbox guidelines.³¹⁸ ▪ March 2018: Bank of Thailand Governor Veerathai Santiprabhob provides an update on the Standardized QR Code for e-payments. According to the governor, the approved standard QR Code has reached roughly 1 million merchants in the six months after exiting the regulatory sandbox.³¹⁹ ▪ December 2017: Bank of Thailand permits three more banks to exit from the regulatory sandbox and be able to offer QR code payment services to the general public.³²⁰ ▪ November 2017: Five banks are permitted by the Bank to exit from the regulatory sandbox and be able to offer QR code payment services to the general public.³²¹ ▪ August 2017: Governor of the Bank of Thailand, Veerathai Santiprabhob, gives prepared remarks on collaboration on adopting standardized QR Code for e-payments. "In the sandbox, QR Code payment services and supporting systems will be tested to ensure the accuracy of transactions, the stability and security of systems, and the provisioning of consumer protection since these are new services which require interoperability between banks and non-banks."³²²

				<ul style="list-style-type: none"> ▪ May 2017: The SEC opens a regulatory sandbox specifically for businesses wishing to test "Know Your Client" technology.³²³ Separately, the Office of the Insurance Commission announces guidelines for participation in the insurance regulatory sandbox.³²⁴ ▪ March 2017: The Office of the Insurance Commission publishes a consultation on the development of an insurance regulatory sandbox.³²⁵ ▪ December 2016: Bank of Thailand launches its regulatory sandbox.³²⁶ ▪ September 2016: Vireka Suntapuntu, senior director of the Financial Institution Applications Department, stated that the central bank is holding a public consultation on its website about regulatory sandboxes until mid-October. The central bank is holding an online public hearing on the regulatory sandbox through October 15 and plans to first open up the sandbox to commercial banks in the first quarter 2018.³²⁷³²⁸ ▪ July 2016: Bank of Thailand Gov. Veerathai Santiprabhob discussed the bank's efforts in regulating the FinTech space, saying that businesses using new financial technologies "need to be regulated." Of note, his remarks also touched on the creation of a regulatory sandbox and potential partnership with the Thai FinTech Club.³²⁹
UAE	Operational	Abu Dhabi Financial Services Regulatory Authority Abu Dhabi Global Market	AE	<ul style="list-style-type: none"> ▪ September 2018: Announces the initiative to launch a FinTech digital sandbox. "The digital sandbox allows financial institutions (FIs) and FinTech innovators to come together to experiment on products and solutions in a digital platform environment, supported by regulatory standards developed by the Financial Services Regulatory Authority (FSRA) of ADGM." ADGM will partner with the ASEAN Financial Innovation Network to leverage the global API exchange platform to drive financial inclusion and connect financial institutions and FinTech firms in MENA with Asia-Pacific participants.³³⁰ ADGM also admits its 3rd RegLab Cohort. A total of 26 firms from 20 countries have been admitted since inception.³³¹ ▪ August 2018: Dubai Financial Services Authority and Abu Dhabi Global Market signed on as members of the Global Financial Innovation Network.³³² ▪ November 2017: At a conference in Singapore, Richard Teng, CEO of the Financial Services Regulatory Authority, Abu Dhabi Global Market (ADGM), noted that not every market needs a sandbox. Teng, in particular, "noted four key themes of emerging sandboxes: 1) regulators who have taken proactive steps to create an environment for startups to flourish; 2) regulators who have not developed any regulation in relation to FinTech; 3) jurisdictions which have started sandboxes as a result of neighbouring markets' activities; and 4) countries without sandboxes but where FinTech is booming."³³³

				<ul style="list-style-type: none"> ▪ May 2017: Abu Dhabi Global Market admits the first five regional and international RegLab participants.³³⁴ ▪ August 2016: ADGM publishes a consultation on proposed legislative framework for innovative FinTech. Includes FinTech RegLab guidance.³³⁵ ▪ May 2016: Abu Dhabi Financial Services Regulatory Authority publishes a consultation paper, which, among other recommendations, proposes to create a "regulatory laboratory" for FinTech firms that would resemble the FCA's sandbox initiative.³³⁶ ▪ March 2016: ADGM announces commitment and aspiration to develop Abu Dhabi as a FinTech hub for the region.
	Operational	<p>Dubai Financial Services Authority (DFSA)</p> <p>Dubai International Financial Centre (DIFC)</p>	AE	<ul style="list-style-type: none"> ▪ September 2018: The second cohort of firms enters the FinTech Hive@DIFC accelerator program, with an emphasis on RegTech and InsurTech. Launch of the first FinTech Hive@DIFC program with Startupbootcamp will run from January 2019. ▪ August 2018: Dubai Financial Services Authority and Abu Dhabi Global Market signed on as members of the Global Financial Innovation Network.³³⁷ ▪ May 2018: The DFSA expands its Innovation Testing License program. "Six companies will form a new Cohort (Cohort 1) that will today begin the ITL application process."³³⁸ ▪ November 2017: DIFC launches a \$100 million FinTech Fund.³³⁹ First cohort of firms exits the FinTech Hive@DIFC program, raising several million dollars of funding at the concluding Investor Day. ▪ September 2017: First cohort of 12 firms enters the FinTech Hive@DIFC accelerator program, run by the DIFC Authority and Accenture. ▪ August 2017: The DFSA launches its crowdfunding framework – the first in the GCC region – for investment and loan crowdfunding.³⁴⁰³⁴¹ ▪ May 2017: The DFSA announced that it will allow FinTech firms to apply for Innovation Testing Licenses. "The restricted financial services licence will allow qualifying FinTech firms to develop and test innovative concepts from within the Dubai International Financial Centre (DIFC), without being subject to all the regulatory requirements that normally apply to regulated firms."³⁴²³⁴³ ▪ March 2017: The DFSA publishes a new FinTech consultation paper - the third in a series of reports outlining DFSA's approach to the regulation of FinTech activities. The third consultation focuses on DFSA's approach to FinTech firms wishing to test innovative products and services.³⁴⁴ ▪ February 2017: The DFSA publishes a consultation paper on SME financing through investment outlining the DFSA's approach to the regulation of investment crowdfunding.

				<ul style="list-style-type: none"> ▪ January 2017: The DIFC launches 'FinTech Hive at DIFC', the region's first FinTech accelerator.³⁴⁵ The DFSA publishes a consultation paper on SME financing through lending outlining the DFSA's approach to the regulation of loan crowdfunding.³⁴⁶
Uganda	Discussed	Financial Market Authority		<ul style="list-style-type: none"> ▪ July 2018: The East African Securities Regulatory Authorities adopt a regional framework "for fit and proper assessment of market practitioners." The regulators agreed to employ regulatory sandboxes, with a sample application and evaluation criteria adopted to help guide member states on implementation.³⁴⁷
UK	Operational	Financial Conduct Authority (<i>Global</i>)	AE	<ul style="list-style-type: none"> ▪ August 2018: FCA, in collaboration with 11 regulators from around the world, announces the creation of the Global Financial Innovation Network (GFIN). Consultation period ends in October.³⁴⁸ ▪ March 2018: In prepared remarks, Christopher Woolard, executive director of strategy and competition at the FCA, states that at present, "there is no joint sandbox programme with other regulators for firms to participate in. Such a project represents new territory. Breaking new ground requires an element of risk, not something, as I've said, that regulators are generally comfortable with. But our whole history with Innovate has been about doing things that regulators historically haven't done." Woolard focuses on two areas in particular where the sandbox could solve global challenges: money laundering and regulatory compliance.³⁴⁹ Separately, the FCA got together with colleagues from across Europe, the U.S., and the Far East, to discuss the blueprint for a global sandbox.³⁵⁰ ▪ April 2018: FCA publishes its Business Plan 2018/19. Included in the plan is an update on where the FCA is looking to take on its sandbox, including putting together a blueprint for a global sandbox.³⁵¹ ▪ March 2018: FCA's Chris Woolard gives remarks on the need for a global regulatory sandbox.³⁵² ▪ February 2018: The FCA announces that it is exploring the creation of a global sandbox. According to the FCA, a global sandbox "could potentially allow firms to conduct tests in different jurisdictions at the same time and allow regulators to work together and identify and solve common cross-border regulatory problems, through tests. Under such a model, testing could span two or more jurisdictions."³⁵³
		Financial Conduct Authority (<i>UK</i>)	AE	<ul style="list-style-type: none"> ▪ October 2018: Innovate Finance and Deloitte's EMEA Centre for Regulatory Strategy publish a report on the FCA's regulatory sandbox. The report includes key themes, challenges, and unexpected benefits of the sandbox based on interviews with several sandbox participants.³⁵⁴ ▪ July 2018: FCA publishes its annual report and accounts 2017/18, including discussing the progress of its regulatory sandbox.³⁵⁵ The FCA also reveals its fourth cohort. Forty percent of the cohort is using distributed ledger technology.³⁵⁶

				<ul style="list-style-type: none"> ▪ April 2018: FCA publishes its Business Plan 2018/19. Included in the plan is an update on where the FCA is looking to take on its sandbox, including putting together a blueprint for a global sandbox.³⁵⁷ ▪ March 2018: FCA's Chris Woolard gives remarks on the need for a global regulatory sandbox.³⁵⁸ ▪ February 2018: The FCA and the U.S. CFTC sign a FinTech agreement that will, among other things, facilitate referrals of FinTech companies interested in entering the others' market, and sharing information and insight derived from each authority's relevant sandbox, proof of concept, or innovation competitions.³⁵⁹ ▪ December 2017: The FCA announces its third cohort.³⁶⁰ ▪ October 2017: FCA publishes "lessons learned" covering the first year of the sandbox.³⁶¹ ▪ June 2017: The FCA announces its second cohort.³⁶² ▪ November 2016: FCA announces the first cohort to its regulatory sandbox.³⁶³ Separately, and according to reports, the FCA has spent roughly £1.8 million on Project Innovate since its launch in October 2014, with the regulatory sandbox accounting for 5.4% of total staff expenditure in Project Innovate.³⁶⁴ ▪ September 2016: FCA's Director of Strategy and Competition, Chris Woolard, provides an update on applications submitted (and accepted) for the first cohort.³⁶⁵ ▪ May 2016: FCA launches its regulatory sandbox with applications for the first cohort due by July 8.³⁶⁶ ▪ April 2016: FCA's Chris Woolard provides an update on the impending launch of the regulatory sandbox.³⁶⁷ The FCA also publishes its Business Plan 2016/2017, which includes notice that the FCA will launch a Regulatory Sandbox.³⁶⁸ ▪ November 2015: The FCA publishes a report that sets out the authority's plans for implementing a regulatory sandbox.³⁶⁹ ▪ March 2015: The government's Office for Science's FinTech Futures report recommends establishing a regulatory sandbox.³⁷⁰
	Discussed	Information Commissioner's Office	AE	<ul style="list-style-type: none"> ▪ September 2018: The ICO issues a call for evidence and initial views on a regulatory sandbox, the first stage of the consultation process.³⁷¹ ▪ March 2018: The Information Commissioner's Office released 8 technology goals for its strategic plan 2018 – 2021 including the establishment of a regulatory sandbox to "enable organisations to develop innovative digital products and services, whilst engaging with the regulator, ensuring that appropriate protections and safeguards are in place."³⁷²
United States	Discussed	Federal Regulators		<ul style="list-style-type: none"> ▪ September 2018: The CFTC signs a FinTech agreement with the Monetary Authority of Singapore. The agreement "includes sharing insights derived from each

				<p>authority's relevant FinTech sandbox, proofs of concept, and innovation competitions."³⁷³ Also, former CFPB official and head of Project Catalyst, Dan Quan, penned an op-ed in <i>American Banker</i> on what the BCFP's regulatory sandbox should look like.³⁷⁴ Lastly, in an op-ed in <i>American Banker</i>, the Comptroller of the Currency, Joseph Otting, asked why state regulators are interested in limiting consumer choice. "My decision to exercise the OCC's authority to consider national bank charter applications from FinTech companies engaged in the business of banking maintains parity with options already available in certain states."³⁷⁵</p> <ul style="list-style-type: none"> ▪ August 2018: The Bureau of Consumer Financial Protection is one of 11 regulators to sign on as a member of the Global Financial Innovation Network.³⁷⁶ ▪ July 2018: CFPB announces Paul Watkins, formerly with the Arizona Office of the Attorney General, as director of the Bureau's Office of Innovation.³⁷⁷ Separately, Treasury releases its fourth and final report, A Financial System that Creates Economic Opportunities: Nonbank Financials, FinTech, and Innovation. While the report notes a number of methods that regulators use to support innovation, the report also states the need for greater regulatory coordination and "recommends that federal and state financial regulators establish a unified solution that coordinates and expedites regulatory relief under applicable laws and regulations to permit meaningful experimentation for innovative products, services, and processes. Such efforts would form, in essence, a 'regulatory sandbox' that can enhance and promote innovation."³⁷⁸ OCC announces it will move forward on its Special Purpose National Bank charter for FinTech firms.³⁷⁹ ▪ May 2018: Acting Director of the CFPB is interested in developing a regulatory sandbox, citing certain state efforts and collaboration with the CFTC.³⁸⁰ Separately, SEC Commissioner Hester Peirce gives prepared remarks covering regulatory sandboxes and cryptocurrencies. "My fear that regulators will grab hold of the shovels and buckets is why I am often wary of so-called regulatory sandboxes. I am entirely in favor of finding ways to make appropriate regulatory allowances that clear the way for innovation to flourish. What troubles me about sandboxes, however, is that the regulator is typically sitting right there next to the entrepreneurs. The regulator is facilitating and hosting the sandbox.... That sort of open communication between innovator and regulator can occur without a government-sponsored sandbox....I am mindful of the fact that a regulator's mere presence can change the tenor of a fruitful conversation. Hence, the beach, not the sandbox, is my preferred approach."³⁸¹ ▪ February 2018: The FCA and the U.S. CFTC sign a FinTech agreement that will, among other things, facilitate referrals of FinTech companies interested in entering
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				<p>the others' market, and sharing information and insight derived from each authority's relevant sandbox, proof of concept, or innovation competitions.³⁸²</p> <ul style="list-style-type: none"> ▪ November 2017: The Federal Reserve Bank of San Francisco held a discussion on regulatory sandboxes in Asia with Kate Lauer, former senior policy advisor at the Consultative Group to Assist the Poor (CGAP), now head of global regulatory strategy at PayPal.³⁸³ ▪ October 2017: OCC Acting Comptroller Keith Noreika speaks with Wharton professor Richard Herring about the regulator's view of FinTech, including a Q&A on regulatory sandboxes.³⁸⁴ Separately, in prepared remarks, Noreika states that pilots "can accomplish the same goals as what others call 'sandboxes,' and allow us to gain insight into a product and to become comfortable with a proposed product's controls and risks early in the process."³⁸⁵ ▪ September 2017: Gerald Tsai, director of applications, enforcement, and FinTech at the Federal Reserve Bank of San Francisco, recently stated that the U.S. is unlikely to adopt regulatory sandboxes any time soon, if ever.³⁸⁶ ▪ August 2017: The OCC's Office of Innovation is exploring the creation of something similar to a regulatory sandbox, without calling it a sandbox. OCC senior deputy comptroller and chief counsel, Amy Friend, stated: "I don't think that's the way sandboxes really work but we've been calling them 'pilots' and we're working on what we would be comfortable with. We view bank-run pilots as a way to gather information useful to us as a way to share our perspective with banks that may be engaging in some type of innovation before they get too far down the road. So we're looking at ... bank-FinTech partnerships in the piloting program."³⁸⁷ ▪ December 2016: CFTC Commissioner Christopher Giancarlo gives prepared remarks on fostering a regulatory environment "that spurs innovation similar to the Financial Conduct Authority's (FCA) sandbox, where FinTech businesses, working collaboratively with regulators, have appropriate "space to breath" to develop and test innovative solutions without fear of enforcement action and regulatory fines...."³⁸⁸ Separately, former CFTC Commissioner Mark Wetjen publishes an op-ed in The Hill regarding regulatory sandboxes. "The policy goals reflected in the U.S. regulatory framework for financial markets have stood the test of time.... What would not make sense is to suspend critical regulations that promote the most important policy goals for the U.S. financial market simply to encourage new innovation and technologies. That risky approach could needlessly erode the very confidence that investors and consumers have had in U.S. markets for decades."³⁸⁹ ▪ October 2016: Federal Reserve Governor Lael Brainard gives prepared remarks on distributed ledger technology. She also focused on regulatory sandboxes in the question-and-answer session following her remarks. "Sandboxes have been used in
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				a more forward-leaning way as a sort of safe harbor, and I think that's premature. ... We have a responsibility to promote socially beneficial innovation. We're going to want to make sure that risks are well managed and controlled from the outset." ³⁹⁰³⁹¹
	Proposed	Congress		<ul style="list-style-type: none"> ▪ April 2017: McHenry is interviewed by the Wall Street Journal about the OCC FinTech charter and his regulatory sandbox bill.³⁹² ▪ September 2016: Rep. Patrick McHenry unveils H.R. 6118, the Financial Services Innovation Act of 2016.³⁹³³⁹⁴³⁹⁵
	Operational	State	AE	<ul style="list-style-type: none"> ▪ October 2018: Arizona Attorney General Mark Brnovich announces the first sandbox participant, Omni Mobile, Inc. - a mobile payment platform. The attorney general also signed a new FinTech cooperation agreement with Taiwan's Financial Supervisory Commission to increase the reach of Arizona's FinTech sandbox.³⁹⁶ ▪ August 2018: Arizona becomes the first state to launch the first FinTech sandbox in the U.S. Begins accepting applications.³⁹⁷³⁹⁸³⁹⁹ ▪ March 2018: Arizona's legislature passes HB 2434.⁴⁰⁰ FinTech proponents, InvisionAZ - a group formed by the Arizona Chamber of Commerce in 2017 to support the use of FinTech in the state - is also behind the FinTech legislation in the state.⁴⁰¹ The bill was signed into law by Governor Doug Ducey.⁴⁰² ▪ February 2018: The National Consumer Law Center submits a letter to the Center for Economic Integrity regarding HB 2434, including a number of potential problems related to the proposed sandbox.⁴⁰³ ▪ January 2018: Arizona Rep. Jeff Weninger (R-LD 17 Chandler), working together with Attorney General Mark Brnovich, introduced HB 2434, legislation to establish a regulatory sandbox program in Arizona.⁴⁰⁴ ▪ September 2017: In an op-ed in <i>American Banker</i>, Arizona Attorney General Mark Brnovich stated the case for creating state-run regulatory sandboxes.⁴⁰⁵
	Proposed		SV	<ul style="list-style-type: none"> ▪ April 2018: Illinois Attorney General and consumer groups express doubts about the regulatory sandbox bill in the Illinois legislature.⁴⁰⁶ ▪ February 2018: The Regulatory Sandbox Act was introduced in the Illinois Senate by Sen. Dan McConchie and Chuck Weaver.⁴⁰⁷ The same bill was introduced in the House by Reps. David S. Olsen, Jonathan Carroll, Mike Fortner, Michael J. Zalewski, and Keith R. Wheeler.⁴⁰⁸ ▪ December 2017: The American Insurance Association unveils new model legislation which is presented to the National Association of Insurance Commissioners that would "give state insurance regulators the freedom to waive some regulatory requirements for insurers who want to test innovative new products and technologies."⁴⁰⁹⁴¹⁰⁴¹¹

	Discussed		<ul style="list-style-type: none"> ▪ September 2018: NYDFS responds to the OCC's decision to accept FinTech charter applications. "The OCC's decision to begin accepting applications for special purpose charters is not about consumer choice but is instead a lawless, ill-conceived scheme to destabilize financial markets that are properly and most effectively regulated by the states." The NYDFS also files a lawsuit against the OCC.⁴¹²⁴¹³ ▪ August 2018: The Board of Directors of the Conference of State Bank Supervisors approves moving forward with litigation against the Office of the Comptroller of the Currency for its pursuit of an SPNB for FinTechs.⁴¹⁴ ▪ July 2018: NY State Department of Financial Services Superintendent Maria Vullo comments on the U.S. Treasury's endorsement of regulatory sandboxes and the OCC's special purpose national bank charter for FinTechs. "The New York State Department of Financial Services fiercely opposes the Department of Treasury's endorsement of regulatory 'sandboxes' for financial technology companies. The idea that innovation will flourish only by allowing companies to evade laws that protect consumers, and which also safeguard markets and mitigate risk for the financial services industry, is preposterous. Toddlers play in sandboxes. Adults play by the rules."⁴¹⁵ ▪ June 2018: In an interview w/ <i>American Banker</i>, Jan Owen, Commissioner of California's Department of Business Oversight, shared her views on regulatory sandboxes.⁴¹⁶ Separately, New York Department of Financial Services Superintendent Maria Vullo states, in prepared remarks, that she has been "highly vocal on myriad fronts in my opposition to this view, which would permit any company that calls itself a FinTech to engage in a form of regulatory arbitrage, either with no regulator or in a so-called sandbox. A sandbox is where toddlers play. Adults play by rules and if you engage in banking activities, that means you are responsibly regulated in order to protect the customers. Period."⁴¹⁷ ▪ April 2018: Regulators from all 50 states and Washington, DC have designated an Innovation Staff Contact within their offices.⁴¹⁸ ▪ February 2018: Seven states "have committed to a multi-state agreement that standardizes key elements of the licensing process for money services businesses."⁴¹⁹ ▪ May 2017: Banking supervisors of the six states that comprise New England (Massachusetts, Vermont, New Hampshire, Rhode Island, Maine, and Connecticut) "let slip publicly that they are mulling the creation of a regional compact that would allow FinTech companies to test new products in a safe, controlled regulatory environment; in other words, a New England regulatory sandbox."⁴²⁰
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Industry Sandboxes

Country/Region	Discussed/Proposed/ Operational	Stakeholders	Key Dates
ASEAN	Operational	Monetary Authority of Singapore; International Finance Corporation; ASEAN Bankers Association	<ul style="list-style-type: none"> ▪ September 2018: The ASEAN Financial Innovation Network (AFIN) today announced the launch of API Exchange (APIX), an online Global FinTech Marketplace and Sandbox platform for financial institutions (FIs). APIX is the world’s first cross-border, open-architecture platform. AFIN also announced a partnership with Abu Dhabi Global Market as the first regulator member of the APIX platform outside ASEAN.⁴²¹ ▪ July 2018: In its 2017/2018 Annual Report, MAS notes that 8 AFIN workshops were conducted in ASEAN and 3 vendors were selected for the Demonstration and Capability phase to develop sandbox for financial institutions and FinTechs.⁴²² ▪ November 2017: ASEAN Financial Innovation Network formally launches on the sidelines of the 2017 Singapore FinTech Festival.⁴²³
China	Discussed	Guizhou Blockchain Industry Technology Innovation Alliance, Zhongguancun Blockchain Industry Alliance, Blockchain Finance Association, Guiyang Blockchain Innovation Research Institute	<ul style="list-style-type: none"> ▪ July 2017: Blockchain associations in the country published a joint protocol known as the Guiyang ICO Consensus. The consensus also envisions a sandbox framework for ICO experimentation.⁴²⁴⁴²⁵
Cyprus	Operational	Bank of Cyprus	<ul style="list-style-type: none"> ▪ January 2018: Bank of Cyprus makes its core banking systems available to interested parties in the form of APIs, in line with PSD2 directive.⁴²⁶ “As a starting point, developers and other interested parties are invited to visit the SandBox Developers portal (sandbox.bankofcyprus.com) where they can sign up and freely test the functionality of the Bank of Cyprus API offerings.” ▪ June 2017: The Bank of Cyprus holds its first “FinTech Marathon” which brings together startups, mentors from abroad, and other stakeholders.⁴²⁷
Malaysia	Operational	Maybank	<ul style="list-style-type: none"> ▪ June 2017: Malaysian-based Maybank launched a regional FinTech sandbox giving startups the ability to develop and test new ideas using the bank’s expertise.⁴²⁸⁴²⁹

UK		Innovate Finance; Konsentus	<ul style="list-style-type: none"> ▪ August 2018: UK-based Konsentus launches a sandbox to help financial institutions comply with PSD2 open banking.⁴³⁰ ▪ May 2017: Innovate Finance publishes the final consultation report covering an industry sandbox.⁴³¹ ▪ April 2017: Innovate Finance publishes a preview of its industry sandbox.⁴³² ▪ February 2017: Innovate Finance publishes a call for input on an industry sandbox.⁴³³ The paper says the industry-driven sandbox “could interoperate” with the FCA’s regulatory sandbox and efforts to test third-party access to traditional bank data “but should not be duplicative of their remits.”
US	Operational	FinTech Sandbox (Boston, MA)	<ul style="list-style-type: none"> ▪ June 2017: FinTech Sandbox signed a memorandum of understanding with the Ontario Centres of Excellence, providing quality data products from 32 industry-leading partners, to qualified start-ups in Ontario.

Miscellaneous

A new study by PayPal attempts to highlight which FinTech developments are really transforming financial services. The report also calls on policymakers and regulators to think like FinTech policymakers and regulators by focusing on four areas in particular: eIdentity, eAuthentication, eSecurity, and eRegulation. On regulation, PayPal notes that while RegTech and sandboxes are important developments, "they do not go far enough." Instead of "piecemeal solutions, regulators should consider changing their mindset from one that is rigid and focused on classical design standards and risks to one that is flexible and is able to account for new technological developments, risks, and data points." The report also calls for regulators and policymakers to "think beyond their agency fiefdoms and national borders" such as creating interoperability through passporting regimes.⁴³⁴

Separately, the Cambridge Center for Alternative Finance and FSD Africa, published a report assessing the development of crowdfunding in East Africa. With the industry still in its infancy in East Africa, the report offered three recommendations to facilitate the development of crowdfunding in East Africa: 1) sector mapping, capacity building and industry engagement activities; 2) developing initiatives that foster regulatory trust in crowdfunding platforms, including the creation of a regulatory sandbox; 3) government support and endorsement.⁴³⁵

Deloitte and the Global FinTech Hubs Federation released a preliminary analysis (full report expected at the Sibos conference in October) covering 44 FinTech hubs. You may recall [that the 2016 analysis](#) highlighted only 21 hubs. New entrants include those from the Nordic regions, Africa, and the Asia-Pacific region. The vast majority of the 44 are in Europe and Asia-Pacific—they account for nearly three-quarters of the hubs identified in the report. Pages 17-21 are very interesting in terms of the number of sandboxes currently implemented or proposed around the world, not to mention the number of FinTech agreements between regulatory agencies and national governments. Overall, London and Singapore remain the top hubs for establishing a FinTech startup.

The Center for Technology Innovation at the Brookings Institute released its annual Financial and Digital Inclusion Project (FDIP) Report. Among the action steps identified for FinTech: "Traditional financial institutions and FinTech entities should coordinate closely in order to leverage the strengths of each sector, such as robust infrastructure and technological expertise; Policymakers and regulators should consider establishing regulatory "sandboxes" for FinTech entities to explore various opportunities for innovation within a supportive and clear regulatory environment. https://www.brookings.edu/wp-content/uploads/2017/08/fdip_20170831_project_report.pdf

A [report from the Center for International Governance Innovation](#) suggests that governments "should tackle the new regulatory conundrums of an increasingly disintermediated global economy by focusing on DLTs' individual use cases rather than its underlying enabling technologies." The report groups the known use cases of blockchain and other distributed ledger technologies (DLTs) into three broad categories: the recycle box (where the adoption of blockchain/DLT solutions may require only minor adaptations of existing national and international regulatory frameworks), a dark box (where regulators must craft more effective global coordination regimes to deter illicit activities using the blockchain), and the sandbox (where existing regulatory regimes pose a threat to the core value proposition of blockchains or DLTs and require national and international regulators "to work with blockchain and DLT entrepreneurs to create innovative ways of satisfying important regulatory prerogatives across multiple industries on a global scale"). <https://www.pymnts.com/innovation/2018/renovite-fintech-sandboxing-compliance-buzzword/>

ENDNOTES

- ¹ <https://asic.gov.au/about-asic/media-centre/find-a-media-release/2018-releases/18-232mr-consultation-on-the-proposed-establishment-of-a-global-financial-innovation-network/>
- ² <http://www.afr.com/business/banking-and-finance/financial-services/insurtech-lobby-gives-up-on-asic-sandbox-20180521-h10cch>
- ³ <https://www.apra.gov.au/sites/default/files/phased-licence-response-paper-20180504.pdf>
- ⁴ <https://www.apra.gov.au/media-centre/media-releases/apra-finalises-new-restricted-adi-licensing-framework>
- ⁵ <https://www.apra.gov.au/sites/default/files/volt-Banking-Authority-Statutory-Instrument-20180507.pdf>
- ⁶ <https://www.theaustralian.com.au/business/technology/bureaucracy-fumbles-australias-innovation-vision/news-story/0896e6952576d73a2c29e9b4d708bb10>
- ⁷ <http://download.asic.gov.au/media/4570456/cp297-published-12-december-2017.pdf>
- ⁸ <https://www.innovationaus.com/2017/11/Consumers-blast-new-sandbox-rules>
- ⁹ <https://treasury.gov.au/consultation/c2017-t230052/>
- ¹⁰ <http://sim.ministers.treasury.gov.au/media-release/105-2017/>
- ¹¹ <https://www.apra.gov.au/sites/default/files/Phased-licence-discussion-paper.pdf>
- ¹² <https://www.budget.gov.au/2017-18/content/>
- ¹³ https://www.budget.gov.au/2017-18/content/glossies/factsheets/html/FS_innovation.htm
- ¹⁴ <http://download.asic.gov.au/media/4221445/john-price-speech-perth-fintech-meetup-published-21-april-2017.pdf>
- ¹⁵ <https://asic.gov.au/for-business/your-business/innovation-hub/licensing-and-regulation/licensing-exemption-for-fintech-testing/>
- ¹⁶ <https://asic.gov.au/regulatory-resources/find-a-document/regulatory-guides/rg-257-testing-fintech-products-and-services-without-holding-an-afs-or-credit-licence/>
- ¹⁷ <https://www.reuters.com/article/us-finance-summit-australia-fintech-idUSKCN0Y90JC>
- ¹⁸ <https://fintech.treasury.gov.au/>
- ¹⁹ <https://www.fca.org.uk/publications/consultation-papers/global-financial-innovation-network>
- ²⁰ <http://cpifinancial.net/news/post/45330/first-sandbox-regulated-mena-cryptocurrency-exchange-launched>
- ²¹ <https://www.nst.com.my/business/2018/04/351974/exclusive-bahrain-eyes-tie-ups-malaysia>
- ²² <http://bahrainedb.com/latest-news/bahrain-non-oil-sector-beats-expectations-4-8-growth-first-nine-months-2017/>
- ²³ https://www.cbb.gov.bh/page.php?p=regulatory_sandbox_application_authorizations_by_the_central_bank_of_bahrain
- ²⁴ <https://businesswireindia.com/news/fulldetails/belfrics-global-all-set-tap-usd-50-billion-digital-payment-markets-mena-region/56409>
- ²⁵ <http://www.bna.bh/portal/en/news/807139>
- ²⁶ <http://bahrainedb.com/latest-news/bahrain-welcomes-first-two-entrants-regulatory-sandbox/>
- ²⁷ https://www.cbb.gov.bh/page-p-central_bank_of_bahrain_announces_landmark_regulatory_sandbox_for_fintech_startups.htm
- ²⁸ <https://www.thehindubusinessline.com/money-and-banking/bahrain-to-launch-vc-fund-for-fintechs-this-year/article9562136.ece>
- ²⁹ <http://www.bma.bm/BMANEWS/BMA%20Releases%20Licensing%20Requirements%20For%20Digital%20Asset%20Businesses.pdf>
- ³⁰ <http://www.bma.bm/BMANEWS/BMA%20Hires%20Senior%20Advisor,%20Fintech.pdf>
- ³¹ <https://www.conyersdill.com/consolidated-acts/bermuda-companies-act>
- ³² <http://www.royalgazette.com/business/article/20180726/bermudas-innovative-insurer-sandbox>

33 https://www.conyersdill.com/publication-files/2018_08_Alert_BDA_Bermuda_Creates_Legislative_Framework_to_Promote_Insurtech_Innovation.pdf

34 <http://bermudalawblog.bm/2018/07/ico-legislation-takes-effect-and-ico-regulations-published/>

35 <https://www.applebyglobal.com/insights/insights-2018/a-framework-for-initial-coin-offerings-in-bermuda.aspx>

36 [http://www.bermudalaws.bm/laws/Annual%20Laws/2018/Statutory%20Instruments/Companies%20\(Initial%20Coin%20Offering\)%20Regulations%202018.pdf](http://www.bermudalaws.bm/laws/Annual%20Laws/2018/Statutory%20Instruments/Companies%20(Initial%20Coin%20Offering)%20Regulations%202018.pdf)

37 <https://www.nasdaq.com/article/op-ed-new-bermuda-legislation-will-create-a-novel-class-of-bank-to-service-fintech-companies-cm1011607>

38 <https://www.re-insurance.com/news/bermuda-regulatory-sandbox-in-place-by-summer-premier-burt/1126.article>

39 <https://www.gov.bm/articles/amending-banks-and-deposit-companies-act-1999>

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