

# Regulatory Regimes that Promote Innovation in the Financial Sector

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*Overview of International Experiences  
November 2018*

## 1. Background

1. Given the complexity of financial markets regulation, the authorization process may involve a disproportionate effort from financial firms with a strong technological component – so-called FinTech and InsurTech players. The regulatory burden and the complexity of the environment may limit their ability to test innovative ideas or products and hinder the entry of innovative firms into the market, with a detrimental effect on competition and consumer welfare.
2. In this context, several governments and regulators have adopted regulatory initiatives and regimes aimed at facilitating the authorization process of FinTech and InsurTech players, providing them with a controlled regulatory environment. These regulatory regimes are typically developed by the payment services, securities and insurance sector regulators, either alone or in cooperation. The key idea of these innovation regimes is to streamline the compliance of FinTech and InsurTech players, be they entrants or incumbents, with the necessary authorization requirements. This is achieved through close monitoring by the regulators or access to a temporary waiver regime.
3. Among the existing regulatory initiatives, the Portuguese Competition Authority (*Autoridade da Concorrência, AdC*) highlights innovation hubs and regulatory sandboxes as options that can promote innovation and competition in the financial sector through lower barriers to entry and expansion. These initiatives are important in reducing legal uncertainty and providing guidance to market entrants.
4. Through the close monitoring firms that wish to enter the market or launch innovative products, these regulatory initiatives provide regulators with an opportunity to learn and accumulate experience in the authorization and supervision process.
5. While acknowledging the usefulness of both types of initiatives, it is important to stress that innovation hubs and regulatory sandboxes are not substitutes. In particular, sandboxes have a greater potential in terms of promoting innovation and competition, since they enable market entry through the temporary adjustment of regulatory barriers. The establishment of an innovation hub could be an important prior step to the establishment of a regulatory sandbox.
6. It is worth emphasizing the importance of promoting these regimes in a context where business secrets are fully safeguarded and that firms' commercially sensitive information is not made available to their competitors.
7. This note presents a brief description of these two types of initiatives, highlighting their advantages and benefits, illustrated with the experience of some European Union Member States.

## 2. Innovation Hubs

8. Innovation hubs are a regulatory initiative whose main objective is to facilitate the authorization process of FinTech and InsurTech players by providing them with information and helping them to become acquainted with the regulatory framework.

9. Innovation hubs often lead to the creation of specific departments or working groups within the regulator, which establish dedicated communication channels between regulators and FinTech or InsurTech firms. Innovation hubs allow these firms to get in touch with the regulator more quickly, to obtain guidance on how best to establish themselves in the market and how to define their business model with a view to regulatory compliance.
10. Innovation hubs vary depending on the type of sponsoring entity and the type of support they provide to firms. According to a study by the Canadian Competition Authority,<sup>1</sup> supervisors from Germany, Belgium, France, the Netherlands, Italy, Luxembourg, the United Kingdom and Switzerland have already implemented this type of initiative. Recently, the Portuguese financial market regulators have established a joint innovation hub.
11. In the case of France, for example, the financial markets supervisor (*Autorité des Marchés Financiers*, AMF), created in 2016 a FinTech, Innovation and Competitiveness division.<sup>2</sup> Its goal is to follow financial innovations, identify regulatory and competitiveness challenges, and evaluate the need to modify European regulation or AMF's policies. The department of prudential supervision and resolution of the Bank of France - *Autorité de Contrôle Prudentiel et de Résolution* (ACPR) – also has a FinTech Innovation Unit since 2016.<sup>3</sup> This unit acts as an innovation hub for FinTech firms in the banking and insurance sectors. ACPR and AMF collaborate closely in cases that require the input of both regulators.
12. The three Portuguese financial sector regulators (the Insurance and Pension Funds Supervision Authority - ASF, the Bank of Portugal, and the Securities Market Commission - CMVM), in collaboration with the Portugal Fintech association, established an innovation hub in September 2018. Portugal FinLab is a communication channel between regulators and market operators regarding innovative projects in the Portuguese financial sector. Through a cooperative approach, the regulators inform the operators on how they can fit their activity into the Portuguese legal and regulatory regime, including information on the authorization and registration process. The first batch of accepted Portugal FinLab participants was announced in November 2018.
13. Innovation hubs may be associated with a regulatory sandbox program, such as in the Netherlands and the United Kingdom, whose experiences we review below. Innovation hubs can also arise from partnerships between public and private entities, such as the Luxembourg's Fintech Innovation Hub.<sup>4</sup>
14. Regarding regulatory sandboxes in EU countries, in addition to the already mentioned cases (Netherlands and the United Kingdom) and Lithuania,<sup>5</sup> Spain has also taken steps to implement a regulatory sandbox regime, through an initiative of the Government and the securities market commission (*Comisión Nacional del Mercado de Valores*).
15. In July 2018, the Spanish Government proposed a draft Law on the Digital Transformation of the Financial System, which includes the creation of a regulatory sandbox ("controlled testing environment") aimed at financial innovations with a

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<sup>1</sup> Competition Bureau Canada (2017), "Technology-led Innovation in the Canadian Financial Services Sector – A Market Study". Available at: <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04188.html>.

<sup>2</sup> Information available at: [http://www.amf-france.org/en\\_US/Acteurs-et-produits/Prestataires-financiers/FinTech?](http://www.amf-france.org/en_US/Acteurs-et-produits/Prestataires-financiers/FinTech?)

<sup>3</sup> Information available at: <https://acpr.banque-france.fr/en/autorisation/fintech-and-innovation/fintech-innovation-unit>

<sup>4</sup> Information available at: <https://www.lhoft.com/en/home>

<sup>5</sup> Information made available by the Bank of Lithuania at: <https://www.lb.lt/en/regulatory-sandbox>

technological base. This draft Law was in public consultation from July 12 to September 7.<sup>6</sup>

### 3. Regulatory Sandboxes

16. A regulatory sandbox is a regime that enables FinTech and InsurTech firms to test innovative products, services and business models in the market, while safeguarding the interests of consumers and preserving the security and integrity of the system.
17. A sandbox imposes a set of eligibility criteria and awards a set of authorization and regulatory waivers to a firm, for a given period of time. To a large extent, a sandbox is similar to a testing phase conducted upon the approval and under the supervision of one or more regulators.
18. These regulatory exemptions are granted taking into account the specificities of the product that the firm wants to test in the sandbox. There are, however, some regulatory requirements that must be fulfilled by all sandbox participants, such as anti-money laundering and counter terrorist financing policies or consumer protection.
19. The admission process starts with the FinTech or InsurTech firms submitting an application to the regulator(s) that manage the sandbox. Applicants must be subject to their supervision and regulation. In general, firms must present a genuinely innovative idea with benefits in terms of financial efficiency and consumer welfare. Applicants should demonstrate that the test is necessary, *i.e.*, that regulatory barriers are substantial and cannot be easily overcome. Applicants must also submit supporting work demonstrating the welfare benefits of the product or service and how it fits into the existing regulation.
20. Applicants whose test plans are approved can place their products in the market under a number of restrictions and safeguards that protect consumers and ensure system security. For example, there may be restrictions on the number and type of consumers to whom the product is made available, or possible compensation and conflict resolution arrangements. Some sandboxes charge a fee to the accepted applicants in order to recover the increased supervision costs.
21. During the sandbox's duration, participants have close follow-up by and frequent interaction with the regulator, in order to better interpret and apply the existing regulation. In addition, the regulator can grant some regulatory flexibility, such as a commitment not to enforce some rules during the test, as long as the firm complies with what was agreed with the regulator, or a temporary waiver or adjustment of non-critical rules that the test would infringe.<sup>7</sup>
22. In this regard, FinTech and InsurTech firms enjoy a number of advantages from a simplified financial market authorization procedure, including:
  - a. A reduction in the time and cost of testing innovative ideas in the marketplace, which encourages the entry of innovative firms;
  - b. Lower regulatory uncertainty, which may allow, for example, easier access to finance;

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<sup>6</sup> Available (in Spanish) at:

<http://www.mineco.gob.es/portal/site/mineco/menuitem.32ac44f94b634f76faf2b910026041a0/?vgnextoid=4904c463ab884610VgnVCM1000001d04140aRCRD>

<sup>7</sup> European Banking Authority - Banking Stakeholder Group (2017). *Regulatory Sandboxes – A proposal to EBA by the Banking Stakeholders Group*.

- c. A guarantee that consumer rights are respected and risks to the financial system are minimized;
  - d. Access to an accessible and informal communication channel with the sector regulator(s).
23. At the end of the testing phase, firms and regulators evaluate the results. Firms that successfully complete the test may decide to require the standard authorization to operate large-scale, becoming subject to the regulatory regime and market conditions that apply to other institutions. Firms may also benefit from an adjusted license in jurisdictions where this is a possibility, *i.e.*, where the regulator decides to exempt a market player from certain requirements on a permanent basis.
24. Most sandboxes provide exit mechanisms, to be used in case the test has to be stopped or is not successfully completed. It should be emphasized that, even though sandboxes allow regulators to gain important insights into the regulation of innovative products, they should not replace an efficient regulatory framework, but rather be used as a complement.<sup>8</sup>
25. Table 1 presents a non-exhaustive list of regulatory sandbox regimes. This table indicates the country/jurisdiction where the sandbox applies, its designation, which institutions supervise the sandbox and what regulatory and supervisory powers the institution has. For example, the Bank of Lithuania accumulates typical central bank competencies with those of capital market supervisors.

**Table 1 – Regulatory Sandboxes**

Jurisdiction	Designation	Supervisor		
		Banking/Payments	Mercado de Capitais	Seguros
Abu Dhabi	ADGM RegLab		Financial Services Regulatory Authority - Abu Dhabi Global Markets	
Australia	Enhanced Regulatory Sandbox		Australian Securities and Investments Commission	
Bahrain	Regulatory Sandbox	Central Bank of Bahrain		
Brunei	FinTech Regulatory Sandbox	Autoriti Monetari Brunei Darussalam		
Canada	CSA Regulatory Sandbox		Canadian Securities Administrators	
Dubai	FinTech Hive		Financial Services Regulatory Authority - Dubai International Financial Centre	
Hong Kong	Fintech Supervisory Sandbox	Hong Kong Monetary Authority	Securities and Futures Commission	Insurance Authority
Indonesia	Regulatory Sandbox	Bank of Indonesia		
Kenya	Regulatory Sandbox		Capital Markets Authority	
Lithuania	Regulatory Sandbox	Bank of Lithuania		
Malaysia	Regulatory Sandbox Framework	Central Bank of Malaysia		
Netherlands	Regulatory Sandbox	Dutch Central Bank (DNB) and Financial Markets Authority (AFM)		
United Kingdom	FCA Innovate		Financial Conduct Authority (FCA)	

<sup>8</sup> He et al. *Fintech and Financial Services: Initial Considerations*. IMF Staff Discussion Note. International Monetary Fund, 2017.

Singapore	FinTech Office	Monetary Authority of Singapore		
Spain (Draft Law)		Bank of Spain	Securities Market Commission (CNMV)	Directorate-General of Insurance and Pension Funds
Switzerland	Sandbox		Swiss Financial Market Supervisory Authority (FINMA)	
Thailand	Practice Guideline	Bank of Thailand		
USA – Arizona	FinTech Regulatory Sandbox	Attorney General, after hearing the relevant agencies		

26. The regulatory sandboxes in Table 1 were mostly established during 2016 and 2017, and no information was found as to sandboxes admitting participants before these dates. In geographical terms, there is a concentration of sandboxes in Europe (Netherlands, Lithuania, United Kingdom, and Switzerland), Southeast Asia (Brunei, Indonesia, Malaysia, Singapore, and Thailand), the Persian Gulf states (Abu Dhabi, Bahrain, and Dubai) and North America (Canada and the state of Arizona, United States of America).
27. Table 1 shows that most sandbox regimes are an initiative of securities commissions, with the accepted participants under their supervision. There is, however, frequent involvement of payment service regulators, such as central banks.
28. The decision to create a regulatory sandbox should take into account factors such as<sup>9</sup>:
- a. **The legal and regulatory framework**, in particular: i) the statutory capacity of the regulator to create a sandbox, ii) the discretion available to the regulator, since a sandbox can be seen as a sum of "discretionarities", iii) the complexity of the framework, given that a sandbox is more useful in heavy and complex regulatory frameworks.
  - b. **The stakeholder ecosystem**: although most sandboxes have been established by a single sector regulator, a coordination and joint selection mechanism should be established in those cases where there is more than one sandbox.
  - c. **Capacity and resources**: operating a sandbox requires the regulator to have an appropriate level of human and financial resources.
  - d. **Market conditions**: such as the financial infrastructure development stage, the existing financial service providers, the quality of the developed and adopted innovations, the intensity of competition, consumer confidence and their willingness to adopt innovative products, among others.
29. At the European level, one of the FinTech Action Plan of March 2018<sup>10</sup> measures is "a blueprint with best practices on regulatory sandboxes, based on guidance from European Supervisory Authorities", which will be presented by the European Commission.
30. In fact, a public consultation by the European Banking Authority<sup>11</sup> indicated that consistency in the regulatory treatment of FinTech firms and the operational aspects of regulatory sandboxes and innovation hubs would help prevent forum shopping, promote consumer and investor confidence, and protect the level playing field; this would lead to an increased attractiveness and competitiveness of the EU FinTech market. The European Banking Agency will present, by the end of 2018, an analysis of

<sup>9</sup> Jenik, Ivo and Kate Lauer (2017). "Regulatory Sandboxes and Financial Inclusion." Working Paper. Washington, D.C.: CGAP.

<sup>10</sup> Available at [http://europa.eu/rapid/press-release\\_IP-18-1403\\_en.htm](http://europa.eu/rapid/press-release_IP-18-1403_en.htm)

<sup>11</sup> EBA (2018). "The EBA's Fintech Roadmap - Conclusions from the Consultation on the EBA's Approach to Financial Technology (Fintech)".

regulatory sandbox features with a view to defining guidelines, best practices and assessing their compatibility with EU law.

31. In what follows, we review the experience of two EU countries regarding innovation hubs and regulatory sandboxes, in order to identify their fundamental characteristics and the way they promote competition and innovation in financial markets.

### **3.1. United Kingdom**

32. The UK was the pioneering country in the creation and implementation of both an innovation hub and a regulatory sandbox for the financial sector. Both initiatives are part of Project Innovate, launched by the Financial Conduct Authority (FCA) in 2014 to promote competition in the financial sector through innovation. In its first year (2015), Innovation Hub helped 175 innovative firms, 5 of which obtained authorization to operate in the market.
33. FCA's Innovation Hub was established at the end of 2014 and has been giving assistance to technologically innovative financial players who seek to obtain authorization or who need advice on how existing regulation applies to their case. By reaching the FCA, FinTech firms can obtain specific explanation on the regulatory regime as well as informal guidance on the regulatory implications of their product or business model.
34. The requests received by the FCA in the Innovation Hub allow them to identify the areas in which the regulatory regime needs to be adapted in order to allow innovative financial products that benefit consumers to enter the market.
35. The Innovation Hub also has an international cooperation component, through agreements with counterpart institutions in other countries (e.g., Australia, Canada, Hong Kong, Japan or Singapore). These agreements are intended to facilitate the entry of FinTech firms from these countries into the United Kingdom, and vice versa.
36. The United Kingdom also has a regulatory sandbox, which was established by the FCA in 2016 at the request of HM Treasury and upon the recommendation of the Government Office for Science. The FCA sandbox offers a set of tools to help FinTech innovators, such as restricted authorization and individual monitoring.<sup>12</sup>
37. The FCA accepts sandbox participants at the rate of two cohorts per year (see Table 2). Applications are submitted up to a deadline and are evaluated by the FCA. The FCA subsequently announces which firms have been admitted to the sandbox and when they can begin their testing. Firms must be present in the UK, in terms of staff and headquarters. The FCA defines jointly with each firm what the test parameters are, how the results will be evaluated, the reporting obligations and the adopted mechanisms for safeguarding consumer rights and the security of the system.

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<sup>12</sup> Information available at: <https://www.fca.org.uk/firms/regulatory-sandbox>.

**Table 2 – FCA’s Regulatory Sandbox**

Cohort	Application Deadline	Applications Received	Applications Accepted
1	July 2016	69	18
2	January 2017	77	24
3	July 2017	61	18
4	January 2018	69	29

38. Notwithstanding the possibility of adjusting the sandbox to each participant, the FCA has adopted the following default test parameters:<sup>13</sup>
- a. **Duration of the test:** 3 to 6 months.
  - b. **Number of consumers:** the test should be small-scale, although large enough to allow the collection of statistically relevant data.
  - c. **Customer selection:** is a responsibility of the firms, although the type of customer must be adjusted to the type of innovation to be tested.
  - d. **Customer safeguards:** retail consumers should not bear the risk of testing and should be able to complain and receive compensation in case of damage or loss. Sophisticated consumers may limit their right to compensation by giving informed consent in advance. The FCA may impose additional measures to safeguard consumer rights.
  - e. **Test plan:** it should include a timeline, a list of milestones, success measures, test parameters, customer safeguards, risk assessment and exit plan.
39. Firms that do not hold an authorization to provide financial services and are admitted to the sandbox are granted a restricted authorization, which allows them to test their product or service but prevents them from engaging in any other type of activity. These restrictions may be lifted at a later date, when firms become fully authorized. European legislation restricts the scope of the authorization to that which the FCA may grant since European provisions cannot be exempted.
40. Payment and electronic money services, among other types of services outside the scope of the Financial Services and Markets Act, cannot be considered for restricted authorization by the FCA. The FCA notes that the regulation of payment and electronic money services itself provides for a simplified authorization regime. For firms subject to double regulation, the FCA proposes to cooperate with the Prudential Regulatory Authority, which is the entity of the Bank of England responsible for the prudential supervision of banks. These two entities jointly define the most appropriate sandbox options. Firms wishing to obtain a banking license may apply to the New Bank Start-up Unit, a joint initiative of the FCA and the Prudential Regulatory Authority.
41. In the case of firms that already have authorization to provide financial services, the FCA pledges not to take enforcement measures during the testing period as long as the conditions determined within the sandbox are verified. The FCA also provides detailed regulatory advice to these firms and may exempt them from the application of certain rules on a temporary basis. Also in this respect, European legislation places limits on the type of rules that may be subject to exemption.
42. With respect to customer safeguards, the FCA determines, on a case-by-case basis, the conditions in terms of information, protection and customer compensation. This

<sup>13</sup> Financial Conduct Authority. *Default Standards for Sandbox Testing Parameters*, available at: <https://www.fca.org.uk/publication/policy/default-standards-for-sandbox-testing-parameters.pdf>

approach allows for greater flexibility, enabling testing with real consumers without the need for informed consent.

43. At the end of the test period, firms submit a final report and, after assessment by the FCA, decide whether to introduce the product or service in the market, for which the standard authorization that applies to the remaining firms must be obtained.
44. The impact analysis undertaken by the FCA to its regulatory sandbox<sup>14</sup> revealed that most firms are start-ups in the retail banking sector. However, firms from the insurance, investment and loan sectors also concluded the testing phase. In terms of success rate, about 75% of the admitted firms completed the testing, 90% of which continued to the market.

### 3.2. The Netherlands

45. The Dutch regulatory sandbox is a joint initiative of the Dutch Authority for the Financial Markets (AFM) and the Dutch Central Bank (DNB) that became operational in January 2017. The two institutions had established a joint innovation hub in the previous year (2016) to serve as a point of contact with innovative financial operators and to facilitate answering their questions.
46. Since June 1 2017, the Dutch Competition Authority (ACM) has been part of this innovation hub and can be asked questions that may be relevant from a competition policy perspective.<sup>15</sup>
47. According to AFM and DNB, Dutch market operators had shown an interest in having more regular contact with supervisory authorities, often claiming that they did not know which specific financial regulation applied to a particular type of service and what the expected regulatory journey was. According to AFM and DNB, market operators had more than once expressed the desire that the two regulators worked more closely, noting that a growing number of innovations lend themselves to both institutions oversight.<sup>16</sup>
48. The InnovationHub AFM-DNB was created with the following objectives:
  - a. Respond to questions that financial players (entrants or incumbents) may have regarding innovative concepts and ideas.
  - b. Provide informal support - but with quality and speed<sup>17</sup> - to new entrants at an early stage of an innovative product or idea's operationalization. The InnovationHub does not provide formal opinions or detailed advice. The channels that each regulator has already established for these purposes should be used.
  - c. Provide a central contact point and a coordinated approach in the support given to firms, thus facilitating their access to the supervisory authorities.
  - d. Intensify coordination and cooperation in all matters related to innovation in the financial sector, with the aim of improving knowledge sharing between the two supervisors, as well as sharing their expertise on technology-based financial innovations.

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<sup>14</sup> Financial Conduct Authority (2017), *Regulatory sandbox: Lessons learned report*.

<sup>15</sup> Frequently asked questions – InnovationHub, available at: <https://www.afm.nl/en/professionals/veelgestelde-vragen/innovationhub>

<sup>16</sup> Authority of the Financial Markets and De Nederlandsche Bank (2016), "More room for innovation in the financial sector - Options for market access, authorisations and supervision."

<sup>17</sup> Questions are answered within two business days, and can be discussed in person, by phone or email.

49. Operators who wish to implement new FinTech products and services, whether incumbents or new entrants, may submit their questions to AFM, DNB or both.<sup>18</sup> In the latter case, the question is referred to one of the institutions after a joint assessment.<sup>19</sup>
50. In its first year (June 2016 to June 2017), the InnovationHub received a total of 216 questions, 61% of which were addressed to the DNB and the remainder to the AFM.<sup>20</sup> This pattern can be explained by the fact that most questions were submitted by payment institutions.
51. AFM and DNB describe their sandbox as a controlled experiment to which market players (incumbents or new entrants) apply in order to be able to test innovative concepts with the approval of the supervisory authorities.
52. In implementing the sandbox, the two Dutch regulators use the available scope in the interpretation of the law when enforcing the rules. This allows the regulators to offer a tailored solution to each case and accommodate innovation in the market as a result. This room for maneuver will be greater on the regulators' own supervisory policies than on national legislation, whereas European regulations and technical standards provide no room for maneuver. Examples of supervisory measures available under the sandbox regime are the application of regulatory provisions open to the regulator's interpretation or the formal waiver of certain legal requirements.
53. The assessment is made on a case-by-case basis by the licensing authority, *i.e.*, the AFM or the DNB, depending on the type of service to be supplied.<sup>21</sup> Since applications are confidential, AFM and DNB cannot communicate with each other about the received applications.
54. Firms admitted to the sandbox will have to demonstrate that they face legal and regulatory barriers that are unnecessary to the product or service they intend to introduce in the market. Firms must demonstrate that these barriers cannot be easily overcome, even though legal and regulatory goals must be complied with.
55. Firms admitted to the sandbox have to meet criteria that ensure the security of the financial system. They must also present a well-defined product or service that is ready to enter the market, with a well-defined test period and a viable exit plan. The regulator follows the implementation of the sandbox permanently, being able at any time to terminate, modify or restrict it, partially or totally, as well as to impose additional requirements.
56. After a predetermined time period, the regulator evaluates the sandbox and is able to adapt it, maintain it in force indefinitely or discontinue it. The regulator assesses whether the sandbox implies changes to established policies, rules or regulations.
57. In such cases, the sandbox principles may be declared binding or applicable from that point on, for example by adapting a regulatory rule or its application. As noted above, supervisors have more room to maneuver when this change affects their own

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<sup>18</sup> Authority of the Financial Markets and De Nederlandsche Bank (2016), "Terugblik: De eerste 6 maanden van de InnovationHub" (Retrospective: The first 6 months of the Innovation Hub), available at: [https://www.dnb.nl/binaries/InnovationHub%20Infographic%20H2%202016\\_tcm46-350714.pdf](https://www.dnb.nl/binaries/InnovationHub%20Infographic%20H2%202016_tcm46-350714.pdf)

<sup>19</sup> Idem footnote 15.

<sup>20</sup> Authority for the Financial Markets and De Nederlandsche Bank (2017), "InnovationHub Update June 2016-June 2017", available at: <https://www.afm.nl/~profmedia/files/onderwerpen/innovationhub/publicaties/innovationhub-infographic050717.pdf?la=en>

<sup>21</sup> Idem footnote 16 and Authority for the Financial Markets and De Nederlandsche Bank (2016), "More room for innovation in the financial sector - Options for market access, authorisations and supervision: Next steps".

supervisory policy. In other cases, supervisors may use the acquired experience and knowledge to eventually suggest changes to the rules at the national or European level.

58. In addition to the regulatory sandbox, Dutch supervisors provide other methods that offer room for innovation, such as:

- a. Partial authorization – intended for financial service firms that want to provide only part of the services covered by an authorization regime, *i.e.*, the firm only has to comply with the requirements that apply to the specific activities it will perform.
- b. Authorization with requirements - for example, the AFM may require that an enterprise only sells products to professional investors, and the DNB may grant a restricted authorization to a firm that is undertaking preparatory work to start an activity, with a view to full authorization in the future.
- c. Opt-in authorization - provided for in the Dutch Code of Financial Supervision, this authorization format allows firms to be treated as a bank and use the word "bank" in their designation and activity. These firms can only operate in the Netherlands and face restrictions in fund reception from the public. However, they can be guaranteed access to the interbank clearing system (Target 2).

### 3.3. Summary

59. Taking into account the discussion above, a comparative analysis of the English, Dutch, Swiss and Canadian model is presented in Table 3, where it is visible that the first two models have a more comprehensive approach.

**Table 3 – Sandbox Regimes**

		Canada	Netherlands	United Kingdom	Switzerland
<b>Type of Applicant</b>	Authorized / Incumbents	✓	✓	✓	✓
	Unauthorized / Entrants	✓	✓	✓	✓
<b>Benefits for Businesses</b>	Regulations relaxed or waived	✓	✓	✓	✗
	Licensing requirements relaxed or waived	✗	✓	✓	✓
	Clarifications on regulatory expectations	✓	✓	✓	✗
<b>Safeguards</b>	Limits on customers, value and/or duration	✗	✓	✓	✓
	Additional reporting obligations/closer monitoring	✗	✓	✓	✗
	Additional consumer protections/risk mitigation	✓	✓	✓	✓
	Specified regulations that cannot be waived	✗	✓	✓	✓

Source: adapted from He et al. *Fintech and Financial Services: Initial Considerations*. IMF Staff Discussion Note. International Monetary Fund, 2017. Caption: ✓ - explicitly mentioned in the regulatory authority's disclosure. ✗ - not required or not mentioned in the regulatory authority's disclosure.

#### 4. Conclusion

60. The two EU regulatory sandbox experiences discussed in this note present some common features: the prior establishment of an innovation hub, coordination between the innovation hub and the regulatory sandbox, as well as cooperation between the sector regulators that oversee the participants.
61. The regulation that new entrants in the financial sector have to face, as well as the process of obtaining authorization, may constitute a barrier to the entry of FinTech and InsurTech firms. The extent and complexity of regulation can limit innovation and competition in the market, in detriment to consumer welfare. In this sense, the adoption of the discussed innovation-promoting regimes may mitigate some of these entry barriers. In the development of the regulatory instruments, it is crucial to safeguard business secrets and ensure that no commercially sensitive information is made available to a firm's competitors.
62. The regulatory sandboxes already established by the financial sector regulators of some EU countries (Lithuania, Netherlands, and United Kingdom), as well as the Spanish initiative (the draft Law already published) and the best practice guidance for sandboxes that the Commission is developing, represent positive developments towards the adoption of regulatory regimes that promote innovation, competition and market efficiency.