Data on Global Diffusion of Financial Regulatory Sandbox (GDFRS)

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Introduction

Since the last financial crisis, there has been another wave of financial innovation supported by new technology. Fintech allows many tech companies as well as traditional financial institutions to provide innovative financial services. At the same time, financial regulators around the globe faced a regulatory conundrum of how to regulate these new actors and new services in their financial market. The Financial Conduct Authority, the UK regulatory agency, first proposed and implement financial regulatory sandbox to accommodate fintech firms and their services. Since then, financial regulatory sandbox has become a widely accepted solution to the rise of fintech. Dozens of jurisdictions proposed their version of regulatory sandbox regimes.

This project is set to improve our understanding of the popularity and the spread of financial regulatory sandbox. The primary purpose is to examine the diffusion of regulatory sandbox between states. The project provides a list of countries who have showed interests in sandbox regime and their subsequent decisions on sandbox establishment. The data records the date that a state proposes to institute sandbox as well as the date it established its sandbox regime.

This data is not an exhaustive list. The last update is on May, 2021. The regulatory sandbox regimes are sometimes difficult to define. The project is primarily based on the lists collected by the following sources:

> - UNSGSA FinTech Working Group and CCAF. 2019. "Early Lessons on Regulatory Innovations to Enable Inclusive FinTech: Innovation Offices, Regulatory Sandboxes, and RegTech." New York, NY and Cambridge, UK: Office of the UNSGSA and CCAF. https://tinyurl.com/yzssn2ms.
> - World Bank Group. 2020. "How Regulators Respond to Fintech Evaluating the Different Approaches-Sandboxes and Beyond." Finance, Competitiveness & Innovation Global Practice Fintech Note, no. 5.

The coders also conduct a survey of all countries to search for new regulatory sandboxes be established. To be sure, this cannot guarantee that we find every sandbox proposal in the world. However, there is no definite list of global sandbox regimes. Our team has made the best effort to ensure the coverage and accuracy of the data.

The data is open for academic use. Please cite this data properly if you use this data. If there are mistakes in the data or any updates for individual countries, please contact Ping-

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Unit of analysis

The unit of analysis is *country-event*. The data intends to answer under what conditions a country will establish a financial regulatory sandbox. In this case, how quickly a country establishes its sandbox is the upmost concern of this data. More importantly, the data tries to capture how much time does it take for a state to formally establish sandbox. This is why the data records when a state became interested in sandbox as a regulatory solution.

It should be noted that a state can have multiple sandbox regimes. It depends on the state's financial regulatory structure. Many countries have different sandboxes for specific functions. They may have one sandbox for electronic payment and another for insurance. Some data will record two sandbox regimes in cases like this. On the contrary, this data only records the first sandbox regime implemented in the state.

Since this is a country-based data. Please remind that a researcher would not be able to compare sandbox regimes with different functions. Also, the data shows how many countries have adopted sandbox regimes, not the number of sandbox regimes implemented around the world. In fact, many countries have adopted more than one sandbox regime. The 2020 report of World Bank Group would be a good reference for that purpose.

Variables

ISO3N: the three-digit numeric ISO code for a state.

COWN: the numeric code for a state designated by Correlate of War project. Please note that Bermuda does not have COW country code.

state: the name of a state.

sandboxin: a binary variable showing whether a country has at least one sandbox regime in force. The term "in force" describes the situation in which a specific law is implemented. In this research, the definition of "in force" is that the financial authority of a country starts accepting the applications of sandbox experiment in public. In other words, the government has not only passed sandbox regulations, it also embarks on sandbox experiments. The definition is set to avoid cases where a sandbox regulation is published but the government does not put the sandbox into practice. It is also common that a state launches the regulation first, and starts implementing the regulation few months after. The timing of "in force" is important because the motives of states behind sandbox differ quite substantially. Some states are interested in helping fintech firms and solving their regulatory challenges; other states may use sandbox regime to effectively monitor and regulate fintech industry; still some countries use sandbox regime to merely attract foreign investment while it lacks resources to implement the sandbox. This data does not address the governing quality of regulatory sandbox, but we believe the lack of implementation or delaying implementation provides explanation to why states establish/not establish regulatory sandbox. This variable is coded 1 if the country has implemented a regulatory sandbox, 0 if a state rejects the idea of regulatory sandbox, and missing (.) means the state is working on its sandbox. The final result is pending.

inforcedate: the date for which a sandbox regime is implemented. This is defined by the

date that a government accepts sandbox applications or the government officially launch a sandbox regime. The format of date is day/month/year.

sandboxpro: a binary variable showing whether a country proposes or shows interests in financial regulatory sandbox. More specifically, it includes the announcements or public statement of financial regulators that their state is interested in sandbox; it is willing to introduce sandbox; it is doing research or evaluation on sandbox; or it is planning to establish a sandbox. A formal proposal or roadmap also apply. The proposal may cover all kinds of financial services, including securities, foreign currency exchange, payment system, and insurance. This variable is coded 1 if the country has at least a record of proposal. Missing value (.) means that the country has already implemented a sandbox, but the exact proposal date is undetermined. The project manager will continue to find the earliest proposal date.

proposedate: the date for which a financial regulator proposes a sandbox regime or announces its interest in establishing sandbox regime. The format of date is day/month/year.

Reference and description:

in force references: the sources used to determine the date of implementation (in force)
in force date description: a brief description or summary of the "in force" references.
propose reference: the sources used to determine the date of proposing a sandbox
propose date description: a brief description or summary of the "propose" references.

Data collection notes

- Financial incubator/hub: Many countries have established fintech incubator or fintech hub. These supportive arrangements, often with no physical space, facilitate the development of fintech, but they are different from financial regulatory sandbox. There is no legally delimited area for the experiments of financial service. Thus, having these supportive hubs cannot be counted as a regulatory sandbox in force. In some cases, states or local government may announce a "sandbox", but it in fact serves the function of innovation hub.
- The Philippines: the Philippine government claimed that it already has had laws that share similarity to a sandbox. They declared to apply such laws to fintech. Therefore, we define the timing of implementation when the Philippine government announced fintech services will be applied to the law.
- The United Arab Emirate: The United Arab Emirates is a federation of seven emirates, who have separate financial jurisdictions. Dubai and Abu Dhabi both passed their own regulatory sandboxes. Since Abu Dhabi's FRSA first introduced regulatory sandbox, the *inforcedate* variable shows the date of Abu Dhabi's sandbox regime.

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